



# Cynllun Gweithredol Cynnal Gaeaf Winter Maintenance Service Plan 2019 ~ 2020



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### RHEOLI DOGFENNAU/DOCUMENT CONTROL

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#### **Pam fod angen canllawiau ar gyfer nodi hanes dogfennau?**

#### *Why do we need guidance for recording changes to documents?*

- Mae cael hanes y ddogfen ar y dudalen flaen yn sicrhau bod pawb sy'n ei darllen yn ymwybodol o'i hanes/*Having the document history as the front page ensures that everyone who reads it is aware of its history.*
- Er mwyn sicrhau bod pawb yn gweithio o'r un fersiwn o'r ddogfen e.e. mewn pwyllgorau/*To ensure that everyone is working on the same version of the document e.g. in committees.*
- Er mwyn cadw trefn ar y fersiynau fel na fyddwch yn gweithio ar fersiwn anghyfredol drwy gamgymeriad/*In order to maintain an order of the various versions so to avoid on a non-current document by mistake.*



# **CYNLLUN GWEITHREDOL GWASANAETH Y GAEAF**

**2019 / 2020**

## **Ymwadiad**

Ni fydd Cyngor Gwynedd yn derbyn unrhyw gyfrifoldeb, boed yn uniongyrchol neu'n anuniongyrchol, am unrhyw gamgymeriadau neu wallau mewn data neu wybodaeth dechnegol a gyflenwyd gan gyrff allanol neu unigolion sydd wedi eu cynnwys yn y ddogfen hon. Cyfrifoldeb y sawl sy'n defnyddio'r ddogfen yw sicrhau bod data technegol a chyfarwyddiadau iechyd a diogelwch yn ddilys cyn gweithredu ar sail yr wybodaeth honno. Yn ogystal, ni fydd unrhyw hawliad a wneir gan unrhyw dderbynydd nad yw'n benodedig neu'n ddefnyddiwr diawdurdod o'r ddogfen, ar unrhyw fater y gellid barnu sy'n gyfrifoldeb i Gyngor Gwynedd yn cael ei dderbyn.

## **Rheoli Dogfennau**

Mae hon yn ddogfen reoledig ac mae iddi gyfeirnod unigryw ar y dudalen hon sy'n perthyn i ddeiliaid cynllun penodol, fel y nodir ar y rhestr ddosbarthu sy'n dilyn. Caiff newidiadau i'r ddogfen hon eu cyhoeddi ar ffurf tudalennau llawn - ar e-bost i staff y Cyngor a thrwy'r post i Gynghorwyr a chyrrff sy'n Bartneriaid. Nodir dyddiad, mis a blwyddyn y newidiadau ar y tudalennau a gaiff eu newid. Dylai deiliaid y cynllun hwn ysgrifennu pob newid ar y dudalen newidiadau a ddarperir.

Ni ddylid llungopio'r ddogfen hon - mae ynddi wybodaeth ar ffurf lliw ac efallai na fydd yn copïo fel y bwriedir.

## **Rheoli'r Cynllun**

Cynhyrchwyd y cynllun hwn gan Adran Prifffyrdd a Bwrdeistrefol, Cyngor Gwynedd, Caernarfon, Gwynedd LL55 1SH.

## **Cyfeirnod**

Y cyfeirnod i'r copi hwn o Gynllun Gwasanaeth y Gaeaf am 2019/20 yw PAB/CGGG/SJ/em/19/20



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## 1.0 CYFLWYNIAD

Diben y cynllun hwn yw gosod yr egwyddorion mae'r Cyngor yn eu defnyddio i gwrdd â'i rwymedigaethau a'i ddyletswyddau o safbwynt y gwasanaeth gaeaf. Ynndo gwelir y categorïau o ffyrdd sydd i gael eu trin, beth yw'r drefn o ran blaenoriaeth, a pha mor sydyn y dylent gael eu trin. Drwy ddefnyddio'r cynllun hwn y bwriad yw sicrhau bod lefel unffurf o wasanaeth drwy'r sir.

Mae'r cynllun yn adlewyrchu argymhellion Cynllun Cynnal Asedau Priffyrdd Cyngor Gwynedd a fabwysiadwyd gan Fwrdd y Cyngor ar 13/07/2010.

Y Cyngor, fel yr Awdurdod Priffyrdd, sy'n gyfrifol am ddarparu gwasanaeth gaeaf ar briffyrdd cyhoeddus a fabwysiadwyd yn y Sir, sy'n cynnwys yr holl gefnffyrdd, gaiff eu trin ar ran Asiantaeth Cefnffyrdd Gogledd a Chanolbarth Cymru. (ACGChC)

Diben gwasanaeth y gaeaf yw rhoi cymorth i ddefnyddwyr ffordd drwy drin y rhwydwaith ffyrdd a lleddfu effeithiau rhew ac eira ac i gadw trafndiaeth i symud, gan leihau effaith gweithrediadau'r gwasanaeth ar yr amgylchedd.

Mae'r gwasanaeth yn hanfodol i ddiogelwch y cyhoedd ac i'r economi cenedlaethol a lleol gan gadw trafndiaeth gerbydol, beiciau a cherddwyr i symud. Oherwydd yr adnoddau cyfyngedig a'r cyllid sydd ar gael mae hi'n hanfodol fod darpariaeth gwasanaeth y gaeaf yn adlewyrchu pwysigrwydd y llwybrau traffig. Ni fydd yn rhesymol ymarferol i ddarparu'r gwasanaeth ar bob rhan o'r rhwydwaith neu i sicrhau bod pob arwyneb yn cael eu cadw yn rhydd rhag eira a rhew bob amser, hyd yn oed ar rannau o'r rhwydwaith sydd wedi eu trin.

Yr amcan yw bod y rhwydwaith o lwybrau wedi eu trin yn rhesymol hygyrch i fwyafrif y trigolion a'r busnesau, ynghyd â thargedu darpariaeth gyda chyfleusterau i helpu eich hun.

Dylid nodi nad yw'r gwasanaeth yn gwarantu y bydd y briffordd yn rhydd rhag eira a rhew ar unrhyw adeg benodol, hyd yn oed ar ôl i'r ffordd gael triniaeth.

## 2.0 DEDDFWRIAETH A CHANLLAWIAU

Mae Adran 41 o Ddeddf Priffyrdd 1980 yn gosod dyletswydd ar awdurdodau priffyrdd i gynnal a chadw priffyrdd sydd i'w cynnal ar gost gyhoeddus. Yn benodol, mae Adran 41 (1A), fel y mewnosodwyd gan Adran 111 Deddf Rheilffyrdd a Thrafnidiaeth 2003, yn gosod dyletswydd ar awdurdodau priffyrdd i sicrhau, cyn belled a bo hynny'n rhesymol ymarferol, nad yw eira a rhew yn peryglu taith ddiogel ar briffordd.

Dywed Adran 13.3 o Gynllun Rheoli Asedau Priffyrdd y Cyngor mai'r arfer gorau fyddai mabwysiadu a chyhoeddi Cynllun Gweithredol Gwasanaeth y Gaeaf ac y dylid ei adolygu yn flynyddol gan ystyried unrhyw amgylchiadau sydd wedi newid.

Yn Adran 150(1) Deddf Priffyrdd 1980, mae gofyniad i'r Awdurdod Priffyrdd dynnu unrhyw eira sydd wedi hel sy'n ffurfio rhwystr, a dywed Adran 150(3) o'r Ddeddf y dylid ystyried y ffactorau a ganlyn:

- Cymeriad y briffordd a natur y drafnidiaeth a'r nifer sy'n ei defnyddio
- Natur a graddau'r rhwystr
- Adnoddau'r gweithlu, cerbydau ac offer sydd ar gael i'r Awdurdod Priffyrdd a'r graddau mae'r adnoddau hynny yn cael eu defnyddio neu angen eu defnyddio i waith o'r fath

Yn ychwanegol, mae Deddf Rheoli Trafnidiaeth 2004 yn rhoi dyletswydd rheoli rhwydwaith ar holl awdurdodau trafndiaeth leol yng Nghymru. Mae gofyn fod awdurdodau yn gwneud popeth sy'n rhesymol ymarferol i reoli'r rhwydwaith yn effeithiol i gadw trafndiaeth i symud.

O'r herwydd, fe gydnabyddir na fyddai hi'n ymarferol i unrhyw Awdurdod Priffyrdd i drin yr holl ffyrdd a'r troedffyrdd pe byddai rhew yn ffurfio neu eira yn syrthio.

### AMCANION

Nód y Cyngor yw i ddarparu Gwasanaeth Gaeaf a fydd yn caniatáu, cyn belled ac mae'n rhesymol bosib, ymsymudiad diogel traffig cerbydau ar rannau mwy pwysig o'r rhwydwaith priffyrdd a chadw oedi a damweiniau sy'n codi o dywydd garw i lawr.

### 3.0 YR ARDAL A CHYFRIFOLDEBAU

Mae ardal Gwynedd oddeutu 985 milltir sgwâr (2550 cilomedr sgwâr) ac mae'r rhwydwaith ffyrdd yn cynnwys Cefnffyrdd, Prif ffyrdd, Ffyrdd Sirol a Ffyrdd Sirol Di-ddosbarth. Gwledig yw cymeriad y rhwydwaith yn bennaf ond gydag elfen drefol sylweddol yn y prif drefi. Mae'r rhwydwaith yn cynnwys y canlynol:

3.1		Cyfanswm (km)	Trefol (km)	Gwledig (km)
	Cefnffyrdd	216.6	13.7	196.9
	Prif ffyrdd (Dosbarth 1)	330.5	71.5	259.0
	Ddim yn Brif Ffyrdd (Dosbarth 2 a 3)	1063.8	103.2	960.6
	Di-ddosbarth	1318.5	343.2	975.3
	<b>Cyfanswm</b>	<b>2929.4</b>	<b>531.6</b>	<b>2391.8</b>

Mae topograffi Gwynedd o'r fath fel bo uchder ffyrdd yn amrywio o lefel y môr i 1,400 troedfedd (427 metr).

### 3.2 Cyfrifoldebau'r Darparwr Gwasanaeth

Mae'r Darparwr Gwasanaeth Lleol yn gyfrifol am:

a.	Ddatblygu Cynllun Gwasanaeth y Gaeaf i'w lwybrau penodol.
b.	Gweithredu Cynllun Gwasanaeth y Gaeaf a darparu gwasanaethau fel y diffinnir yn y Cynllun.
c.	Dylunio llwybrau trin Gwasanaeth Gaeaf
d. *	Casglu gwybodaeth am ragolygon y tywydd a chyflwr y ffyrdd, gwneud penderfyniadau a rheoli'r gwaith yn ddyddiol.
e. *	Cyd-gysylltu gyda darparwyr gwasanaethau cyffiniol i sicrhau gwasanaeth parhaus a chyson.
f. *	Rhoi gwybod i bawb perthnasol am Waith Gwasanaeth y Gaeaf
g. *	Gweithredu Gwaith Gwasanaeth y Gaeaf fel yr hysbyswyd.
h. *	Cyflwyno adroddiadau i NMWTRA.
i. *	Monitro ac adolygu perfformiad.
j.	Darparu offer, llafur a deunyddiau.
k.	Cynnal a chadw cerbydau, canolfannau ac offer a'u gweithredu.

*Noder: Gweler Atodiad I\* ACGCC/Awdurdod Partneriaeth Gweithdrefnu Cynnal a Chadw dros y Gaeaf*

#### **4.0 SEFYDLIADAU**

- 4.1 Mae'r Adran yn gweithredu ar hyn o bryd gyda swyddogaeth Comisiynu a Gweithredol. Mae'r Uned Comisiynu yn nodi'r gofynion ac yn rheoli'r gweithrediad. Mae'r Gwasanaeth Gwaith Priffyrdd yn rheoli'r gweithlu. Mae cyfrifoldebau cyfundrefnol yn cael eu dogfennu yn Llawlyfr Ansawdd Gwasanaeth.
- 4.2 Mae gan Pennaeth Priffyrdd a Bwrdeistrefol gyfrifoldeb am y weithrediad Gomisiynu a Gweithredol.
- 4.3 Mae gweithrediadau Comisiynu yn cael eu harolygu gan yr Uwch Reolwr a'i Beirianwyr Ardal yn y swyddfeydd ardal.
- 4.4 Mae Uwch Reolwr Gwasanaeth Gwaith Priffyrdd yn arolygu'r gweithlu sy'n gweithredu'r cerbydau graenu a pheiriannau eraill fel bo'r gofyn i raeau yn ragofynol ar sail 24 awr, ac ymateb i gyflwr tywydd eithafol.
- 4.5 Ar gyfer gwaith Cynnal a Chadw'r Gaeaf, caiff yr uned ei rhannu yn dair ardal weithredol, sef Arfon, Dwyfor a Meirionnydd gyda swyddfeydd ardal yng Nghaernarfon, Pwllheli a Dolgellau.
- 4.6 Tu allan i oriau gwaith arferol y swyddfa, ar benwythnosau ac ar amseroedd eraill pan fydd y swyddfeydd ar gau, mae system 'swyddog ar ddyletswydd/ar-alwad' mewn bodolaeth. Bydd staff Comisiynu a staff Gwasanaeth Gwaith Priffyrdd yn gweithredu ar drefn rota 24 awr.
- 4.7 Mewn argyfwng helaeth, bydd swyddogion yr Uned Comisiynu a'r Gwasanaeth Gwaith Priffyrdd yn gweithio o'r swyddfeydd ardal drwy'r amser.

## 5.0 GWASANAETHAU RHAGOLYGN TYWYDD A SYSTEM RHAGWELD RHEW

### 5.1 Cyfnodau Gwasanaeth y Gaeaf

Isod nodir tri Cyfnod Gwasanaeth y Gaeaf:

CYFNOD RISG YMYLOL	- ni ddisgwylir tywydd garw, Hydref, Ebrill
CYFNOD RISG ISEL	- gall tywydd garw ddisgwyl, Tachwedd, Mawrth
CYFNOD RISG UCHEL	- rhesymol i ddisgwyl tywydd garw, Rhagfyr, Ionawr, Chwefror

### 5.2 Rhagolygon Tywydd

Mae'r Cyngor yn bresennol yn derbyn darpariaeth rhagolygon tywydd y gaeaf a gwasanaethau cynghori gan MetDesk.

Mae'r gwasanaeth yn rhedeg 24 awr y dydd o Hydref 1af hyd at Ebrill 30ain i gyfateb i'r tri cyfnod Gwasanaeth y Gaeaf ac yn cynnwys y canlynol:

- Lleoliad penodol mewn ffurf graff yn cael ei gyhoeddi am 06:00 bob dydd yn cynnwys crynodeb o'r tywydd gwirioneddol sydd wedi digwydd yn y 36 awr flaenorol, a rhagolwg rhagarweiniol am y 36 awr i ddod.
- Rhagolwg tects 36 awr a 2 – 10 diwrnod ynghyd a graff yn cael ei gyhoeddi am 13:00 ar gyfer y pump parth hinsoddol o fewn y Sir.
- Adolygiad o'r cyhoeddiad 18:00
- Gwasanaeth teleffon anghyfyngedig uniongyrchol 24 awr y dydd i ddaroganwr gyda gwybodaeth lleol er trafod unrhyw agwedd o amodau y tywydd.
- Bydd rhagolygwr MetDesk yn ffonio rhif ar-alwad y tair ardal os bydd newid sylfaenol yn y tywydd.

- Mae cynllun yn dangos y parth hinsoddol yn cael ei dangos yn Atodiad II
- Mae rhagolygon y tywydd yn cael eu crynhoi gan MetDesk o ddata wedi ei dderbyn gan radar, modelau a naw gorsaf monitro ffyrdd awtomatig.
- Yn ystod oriau gweithio arferol, penwythnosau a gwyliau cyhoeddus derbynnir gwybodaeth am ragolygon tywydd drwy wefan MetDesk <http://www.metdesk.com>. Mae gan bob swyddog fynediad unigol fel y gellir monitro.
- Yn yr achos o newid amlwg yn y tywydd, mae MetDesk yn cysylltu gyda'r swyddog ar-ddyletswydd yn syth gyda unrhyw newid i'r rhagolwg.

## 5. System Rhagweld Rhew

- Yn ychwanegol at dderbyn rhagolygon gan MetDesk, gall y Cyngor hefyd fonitro data o orsafoedd monitro ffyrdd drwy feddalwedd Icecast.
- Lleolir y gorsafoedd monitro fel a ganlyn:

Rhif ffordd	Lleoliad	Cyfeirnod Map	Ht(m)
A5025	Llansadwrn	SH 545 750	82
A4086	Mymbyr	SH 692 569	203
A4212	Celyn	SH 817 395	350
A499	Abersoch	SH 318 298	16
A499	Pontllyfni	SH 441 537	10
A413	Tywyn	SH 595 014	6
A5	Ogwen	SH 483 968	200
A494	Cefnddwysarn	SH 965 385	247

- Dim ond chwech o'r gorsafoedd monitro sydd yng Ngwynedd (Abersoch, Pontllyfni, Tywyn, Cefnddwysarn, Celyn a'r A5 Ogwen).
- Gosodwyd synwryddion yn y gorsafoedd tywydd i storio a chyfnewid gwybodaeth ar dymheredd aer ac arwyneb y ffyrdd, pwynt gwllith, cyflymder y gwynt a gwlybanaeth a gorchudd cwmwl .

## 6.0 TREFN GWEITHREDU GWASANAETH

### 6.1 Trefniant staff

I ddibenion Cynnal a Chadw dros y Gaeaf caiff y Sir ei rhannu'n dair ardal:

- Arfon gyda storfa weithredol yn Cibyn, Caernarfon
- Dwyfor gyda storfa weithredol yn Afonwen, Chwilog
- Meirionnydd gyda storfeydd gweithredol yn Dolgellau, Bala, Blaenau Ffestiniog, Tywyn a Dinas Mawddwy gyda'r prif storfa weithredol yn Dolgellau.

Mae penderfyniadau cyn-triniaeth yn ystod oriau gwaith arferol yn cael eu gwneud gan swyddogion penodol o fewn yr Adran Priffyrdd a Bwrdeistrefol ym mhob un o'r tair Swyddfa Ardal.

Bydd y swyddog dynodedig yn cysylltu gyda'r Gwasanaeth Gwaith Priffyrdd i roi cyfarwyddyd llafar o'r weithred arfaethedig. Bydd y weithred hefyd yn cael ei chadarnhau yn ysgrifenedig.

Yn ychwanegol, mae pob Swyddfa Ardal yn gweithredu system ar-alwad tu allan i oriau gwaith lle mae swyddogion o fewn yr Adran ar gael i ymateb i newidiadau i'r tywydd fel mae gwybodaeth yn dod i law. Gellir cysylltu â phob Swyddog Dyletswydd ar lein ffôn argyfwng benodol (Atodiad III). Mewn amgylchiadau lle digwydd hyn mae'r swyddog sydd ar ddyletswydd yn cysylltu gyda'r swyddog sydd ar ddyletswydd yn y Gwasanaeth Gwaith Priffyrdd i roi gwybod am ei benderfyniad a pa gamau sydd i'w cymryd, a bydd yntau yn ei dro yn cysylltu â'r gweithredwyr i roi gwybod ac i weithredu'r cyfarwyddyd.

Mae rhifau ffôn arferol yn ystod a thu allan i oriau gwaith ar gyfer ymholiadau Gwasanaeth y Gaeaf yn cael eu cynnwys mewn hysbyseb tudalen lawn yn llyfr ffôn BT i Ogledd Orllewin Cymru.

### 6.2 Cyswllt Tros y Ffin

Trosglwyddir y penderfyniadau cyn-driniaeth i ACGCC a fydd yn cyd gasglu holl weithredoedd yr Awdurdodau Partneriaeth (Atodiad I). Bydd ACGCC wedyn yn e-bostio'r gweithredoedd awgrymiedig perthnasol i randdeiliad perthnasol.

Er uchafu ar effeithiolrwydd, mae rhai o ffyrdd Gwynedd yn cael eu graeanu gan awdurdodau cyfagos ac yn yr un modd mae trefniadau mewn lle i'r Awdurdod drin y ffyrdd o fewn Sir Ddinbych a Chonwy.

O dan yr amgylchiadau yma bydd y weithred a gymerwyd o fewn cytundeb a pholisi yr Awdurdod sy'n ymgymryd â'r gwaith.

### 6.3 Gweithred

Mae'r lefelau gweithredu fel a ganlyn:

- |                               |   |  |
|-------------------------------|---|--|
| • Patrôl                      | - | Caiff ei ymgymryd gan Arolygwyr Priffyrdd pob ardal  |
| • Ar Alwad                    | - | Gweithwyr gartref yn aros am alwad   |
| • Gweithwyr yn aros yn y depo | - | Gweithwyr yn y depo yn aros am gyfarwyddiadau  |
| • Cyn-raeanu                  | - | Gwneir gan yrwyr yn unig mewn cerbydau graeanu i daenu halen ar raddfa benodol ar hyd yr holl ffyrdd yn unol â'r llwybrau a restrwyd |
| • Clirio eira                 | - | Gwneir gan yrwyr ac un arall pan fo'r erydr eira wedi eu gosod. Caiff halen hefyd ei roi mewn cyfnod o eira ond ar raddfa uwch.      |

## 6.4 Gweithrediadau

Mae cerbydau Ffilyd Gwasanaeth y Gaeaf yn cynnwys cerbydau graeanu pwrpasol a cherbydau dadlwytho. Y Rheolwr Ffilyd sydd yn gyfrifol am feddiannu a chynnal a chadw'r Ffilyd Gwasanaeth y Gaeaf.

Mae gan Rheolwr Gwasanaeth Gwaith Priffyrdd gyfrifoldeb am gyflenwi gweithredwyr i weithio'r ffilyd ac unrhyw gerbydau eraill sydd yn ofynnol i gyrff y graeanwyr sy'n dadlwytho. Mae'r ffilyd yn cael ei gynnal a'i wasanaethu gan weithdai'r Uned Ffilyd sydd wedi eu lleoli o fewn pob ardal.

Bydd gweithrediadau rhagofalus graeanu arferol yn cael eu cario allan gan gerbyd graeanu un dyn yn unig. Fe gariwyd allan asesiad risg o'r drefn sy'n adnabod gweithiwr unig sy'n gweithio o dan amgylchiadau a allai fod yn beryglus ar weithgaredd risg uchel.

O ganlyniad mae dyfais tracio wedi ei osod ym mhob cerbyd, mae'r ddyfais yma hefyd yn tracio lleoliad y cerbyd.

Mae'r system yn cynnwys 'panic button' ym mhob cerbyd sy'n gallu anfon rhybudd i'r rheolwr perthnasol o fewn y Gwasanaeth Gwaith Priffyrdd. Mae data graeanu yn cael ei gasglu drwy yr un system tracio. Mae gan yr holl gerbydau graeanu ffonau symudol.

## 6.5 Taenu Halen



### 6.5.1 Triniaeth Ragofalus

Gweler y matrices sy'n gwneud y penderfyniadau yn Atodiad IV, gan gysidro sawl senario. Gall y rhain gael ei addasu trwy gysidro faint o halen sydd dros ben neu leithder yr arwyneb.



## 7.0 BLAENORIAETHAU

### 7.1 Cyn-graeau y Gerbydlon

Ein nod yw darparu gwasanaeth graeanu rhesymol ac ymarferol cyn unrhyw dywydd garw ar y ffyrdd mwyaf strategol/pwysicaf yng Ngwynedd. Adwaenir y rhain fel Prif Lwybrau a byddid yn sicrhau bod modd teithio yn ddiogel ar eu hyd ac nad oes perygl gan rew ac eira. Mae cyn-raeanu y gerbydlon yn gyfyngedig i brif ffyrdd ac yn cael ei gario allan gan gerbydau graeanu yn unig.

Y Prif Lwybrau ( y cerbydlonydd sydd gyda blaenoriaeth cyntaf) yw:

- A55, A5, A487, A470, A494 Cefnffyrdd.
- Priff ffyrdd A a ffyrdd strategol B.
- Ffyrdd cysylltiedig pwysig eraill sydd yn:-
  - a) Ffyrdd gyda traffig uchel.  
neu
  - b) Darparu o leiaf un mynediad i'r canolfannau sy'n ymateb i argyfwng neu sy'n derbyn derbyniadau argyfwng.  
neu
  - c) Ffyrdd Dosbarth Sirol II neu III gydag oddeutu un mynediad i'r trefi a phentrefi.

### 7.2 Ôl Halenu y Gerbydlon

Bydd ôl halenu yn cael ei gario allan mewn tywydd garw eithafol yn unig, neu tra y disgwylir y tywydd garw barhau, ac os na fydd y ffyrdd perthnasol wedi derbyn triniaeth yn ystod y 36 oriau blaenorol. Rhoddir blaenoriaeth i gadw'r Prif Lwybrau ar agor cyn cysidro gwaith ar drin a clirio Ffyrdd Eilradd ac ymdrin a gweddill y Ffyrdd Sirol yn ddilynol

Y Ffyrdd Eilradd (y cerbydlonydd sydd yn cael ail flaenoriaeth) yw:

- Y ffyrdd Sirol Dosbarth III ar ôl nad ydynt yn cael eu cynnwys fel ffyrdd blaenoriaeth cyntaf.
- Ffyrdd eraill sy'n darparu o leiaf un mynediad i ysgolion, canolfannau hyfforddiant neu fannau diwydiannol.
- Ffyrdd Sirol Dosbarth II eraill sy'n darparu o leiaf un mynediad i Ysbytai neu Canolfannau Gofal Iechyd dyddiol.
- Ffyrdd eraill sydd yn cael eu adnabod fel angen triniaeth oherwydd graddiant serth neu uchder.

Bydd triniaeth ôl graeanu dim ond yn cael ei gario allan yn ystod golau dydd a gwneir hyn pan fydd adnoddau ar gael yn unig gan ystyried y gofynion i ddarparu Prif Ffyrdd a chyflwr y tywydd yn gyffredinol.

### 7.3 Halenu Troedffyrdd a Lonydd Beics

Ni fydd cyn-driniaeth i droedffyrdd a llwybrau beics. Yn ychwanegol, ni fydd ôl driniaeth o unrhyw fath yn cael ei hystyried hyd nes bydd adnoddau ar gael ar ôl cadw prif ffyrdd a ffyrdd eilradd mewn cyflwr derbyniol. Mae hyn yn cynnwys ôl driniaeth prif ardaloedd siopa.

### 7.4 Clirio Rhew

Bydd clirio eira yn cael ei gario allan gyntaf ar y ffyrdd sydd ar y rhestr i gael cyn-driniaeth halenu. Bydd gweddill y rhwydwaith sydd ddim yn cael eu trin yn cael eu trin mewn tywydd eithafol fel daw adnoddau ar gael.

## **7.5 Binau Halen**

Yn ychwanegol i'r gwasanaeth graeanu rhagofalus ,ymatebol ac atodol ddarparir gan y Cyngor fe baratoi'r, drwy gytundeb gyda'r cynghorau cymuned /tref, wasanaeth binau halen mewn lleoliadau penodol o'r rhwydwaith sydd ddim wedi ei adnabod ar y rhwydwaith graeanu blaenoriaeth gyntaf.

## **7.6 Amser Ymateb a Thrin**

- Yr amser ymateb yw'r cyfnod rhwng gwneud y penderfyniad i weithredu a bod y cerbydau yn gadael y depo, sef un awr ac yn ystod oriau gwaith.
- Caiff holl gefnffyrdd Gwynedd eu trin cyn pen 2 awr o ddechrau eu graeanu.
- Yr amser triniaeth ar gyfer ffyrdd blaenoriaeth fydd oddeutu tair awr, ond gwneir pob ymdrech i ostwng hwn drwy wella nodweddion a chynhwysedd cerbydau, lleoliadau depo a halen a gostwng teithio am ddim ar lwybrau.
- I rai ffyrdd, lle mae angen i fwy na 20gms/m<sup>2</sup> gael ei daenu dylid teithio'r ffordd ddwywaith er mwyn cyrraedd y raddfa ledaenu ddymunol. Yn yr amgylchiadau hyn gall y ffordd gymryd hyd at 6 awr i'w chwblhau.

## 8.0 RHEOLI HALEN



Caiff yr halen ei gadw yn y chwech lleoliad isod:

	Cynnwys (Mewn Tunelli)
➤ Cibyn Depot, Caernarfon	2,500
➤ Afonwen Depot, Chwilog	3,000
➤ Ffridd Arw, Dolgellau	3,800
➤ Bala Depot	3,000
➤ Blaenau Ffestiniog	4,500
➤ Llandygai	4000

Mae gan y pedwar lleoliad cyntaf gromen halen pwrpasol.

Cedwir yr halen o dan do yn Blaenau Ffestiniog a Llandygai sydd hefyd yn Storfa Llywodraeth Gymreig Strategol.

## 9.0 ADNODDAU

Mae'r Gwasanaeth Cynnal a Chadw Gaeaf yn dibynnu ar y taenu effeithiol o halen o gerbydau pwrpasol i weithredu fel dad-rewr a defnyddir halen neu gymysgfa o halen a graean i leihau effaith rhew ac eira. Mae eira gorweddol yn cael ei symud gyda swch eira neu eu lwytho yn gorfforol.

### Lleoliadau'r Gweithlu

Ardal	Gyrrwyr	Mecanics (Priffyrdd)
Arfon	18	4
Dwyfor	14	5
Meirionnydd	25	5
Cyfanswm	57	14

### Lleoli Peiriannau a Cherbydau

Safle	Peiriannau a Cherbydau					
	Wedi eu hadeiladu yn bwrpasol	Sychau Eira	Graeanwyr y Gellir eu tynnu	Pwrpas Deuol	Chwythu Eira	Wrth Gefn Adeiladwyd yn Barpasol
Cibyn	5	8	2	0	0	1
Afonwen	6	8	0	1	0	1
Dolgellau	3	6	2	1	0	2
Bala	3	4	1	0	0	0
Llan Ffestiniog	3	4	0	0	0	0
Tywyn	2	2	0	0	0	0
Cyfanswm	22	32	5	2	0	4

## MANYLION CERBYDAU GRAEANU

### ARFON

3540	CE68EGX	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3541	CE68EGY	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3519	KM10TJV	Gritter (Dedicated)	Volvo FE340	6x4	Romaquip
3530	DE64XZS	Gritter (Dedicated)	Mercedes Benz Arocs 3333A	6x6	Romaquip
3535	DG66JJV	Gritter (Dedicated)	Mercedes Benz Arocs 3333A	6x6	Romaquip
3522	WX64ZKA	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip

### DWYFOR

3521	WR61YSH	Gritter (Dedicated)	MAN 18.290	4x4	Romaquip
3537	KU68BYN	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3538	KU68BYO	Gritter (Dedicated)	Volvo FE340	6x4	Romaquip
3539	KU68BYP	Gritter (Dedicated)	Volvo FE340	6x4	Romaquip
3542	CE68EGZ	Gritter (Dedicated)	Volvo FE340	6x4	Romaquip
3532	DE64XZV	Gritter (Dedicated)	Mercedes Benz Arocs 3333A	6x6	Romaquip
0131	CN09CGU	Gritter (De-Mount)	Mercedes Benz Axor 2629B	6x4	Econ

### MEIRIONNYDD

3520	WR61YSG	Gritter (Dedicated)	MAN 18.290	4x4	Romaquip
3523	WX64ZKB	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3524	WX64ZKC	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3525	WX64ZKD	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3526	WX64ZKH	Gritter (Dedicated)	MAN 15.250	4x4	Romaquip
3527	WX64ZKJ	Gritter (Dedicated)	MAN 15.250	4x4	Romaquip
3528	WX64ZKK	Gritter (Dedicated)	MAN 15.250	4x4	Romaquip
3529	WX64ZKL	Gritter (Dedicated)	MAN 15.250	4x4	Romaquip
3533	CN66YMR	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3534	CN66YMS	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3531	DE64XZU	Gritter (Dedicated)	Mercedes Benz Arocs 3333A	6x6	Romaquip
0130	CN09CGG	Gritter (De-Mount)	Mercedes Benz Axor 1824AK	4x4	Econ
3515	CN09CGF	Gritter (Dedicated)	Mercedes Benz Axor 1824AK	4x4	Econ



# **WINTER SERVICE OPERATIONAL PLAN**

**2019 / 2020**

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## **Plan Management**

This plan has been produced by the Highways and Municipal Department, Gwynedd Council, Caernarfon, Gwynedd LL55 1SH

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## **1.0 INTRODUCTION**

The purpose of this plan is to set out the principles that the Council uses to meet its obligations and duties in respect of its winter service. It lays down which categories of road are to be treated, in what order of priority, and how quickly they should be treated. It is intended, through the use of this plan, to ensure that there is an uniform level of service throughout the county.

This plan reflects the recommendations of the Gwynedd Council's Highway Asset Maintenance Plan, which was adopted by the Council Board on 13/07/2010.

The Council, as the Highway Authority, is responsible for providing a winter service on adopted public highways within the county which includes all trunk roads, which are dealt with on behalf of the North and Mid Wales Trunk Road Agency (NMWTRA).

The purpose of the winter service is to provide assistance to road users by treating the highway network to mitigate the effects of ice and snow and to maintain traffic movements, whilst minimising the impact of the service operations on the environment.

The service is essential for public safety and to the national and local economy in maintaining movement of vehicular traffic, cycles and pedestrians. Owing to limited resources and available finance it is essential that provision of winter service reflects the importance of traffic routes. It will not be reasonably practicable to provide the service on all parts of the network or to ensure all surfaces are kept free of ice or snow at all times, even on the treated parts of the network.

The objective is that a network of treated routes should be reasonably accessible for the majority of residents and businesses, supplemented by targeted provision of self-help facilities.

It should be noted that the service does not guarantee that at any given time a highway will be free of ice or snow, even following treatment.

## 2.0 LEGISLATION AND GUIDANCE

Section 41 of the Highways Act 1980 imposes a duty on highway authorities to maintain highways maintainable at public expense. In particular, Section 41 (1A), as inserted by Section 111 of the Railways and Transport Safety Act 2003, which imposes a duty on highway authorities to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice.

Section 13.3 of the Council's Highway Asset Management Plan states that best practice would be to adopt and publish a Winter Service Operational Plan which should be reviewed annually to take account of changing circumstances.

Under Section 150(1) of the Highways Act 1980, there is a requirement for the Highway Authority to remove any accumulation of snow which forms an obstruction, and Section 150(3) of the Act states that the following factors should be taken into account:

- the character of the highway and the nature and amount of traffic using it
- the nature and extent of the obstruction
- the resources of the workforce, vehicles and equipment available to the Highway Authority and extent to which those resources are being, or need to be employed on such work

In addition, the Traffic Management Act 2004 places a network management duty on all local traffic authorities in Wales. It requires authorities to do all that is reasonably practicable to manage the network effectively to keep traffic moving.

Thus it is recognised that it would not be practical for any Highway Authority to treat all roads and footways in the event that ice forms or snow falls.

### OBJECTIVES

The Council aims to provide a Winter Service which will permit, as far as is reasonably possible, the safe movement of vehicular traffic on the more important parts of the highway network and keep to a minimum delays and accidents resulting from adverse weather conditions.

### 3.0 AREA AND RESPONSIBILITIES

Gwynedd covers an area of approximately 985 square miles (2550 square kilometres) and its road network comprises Trunk and Principal, Non Principal and Unclassified County roads. This network is mainly rural in character, but with a significant urban element in the major towns. The network is made up of the following:-

#### 3.1

	<b>Total (km)</b>	<b>Urban (km)</b>	<b>Rural (km)</b>
<b>Trunk</b>	216.6	13.7	196.9
<b>Principal (Class 1)</b>	330.5	71.5	259.0
<b>Non-Principal (Class 2 &amp; 3)</b>	1063.8	103.2	960.6
<b>Unclassified</b>	1318.5	343.2	975.3
<b>Total</b>	<b>2929.4</b>	<b>531.6</b>	<b>2391.8</b>

The Topography of Gwynedd is such that the altitudes of roads vary from sea level to 1,400 feet (427 metres)

#### 3.2 Role of the Service Provider

The Local Service Provider is responsible for:

l.	Development of the Winter Service Plan for its specific routes.
m.	Implementation of the Winter Service Plan and delivery of services as defined in the Plan.
n.	Design of Winter Service treatment routes.
o. *	Day to day gathering of weather forecast and road condition information, decision-making and operational management.
p. *	Liaison with neighbouring service providers to ensure continuous and consistent service.
q. *	Communication of Winter Service Actions to all relevant parties.
r. *	Implementation of Winter Service Actions as communicated.
s. *	Reporting to NMWTRA.
t. *	Monitoring and reviewing performance.
u.	Provision of Plant, labour and materials.
v.	Maintenance and operation of vehicles, compounds and equipment.

*Note: Please see Appendix I\* NMWTRA/Partner Authority Winter Maintenance Procedures*

## **4.0 ORGANISATIONS**

- 4.1 The Department operates at present with a Commissioning and Operational function. The Commissioning Unit specify the requirements and control the operation. The Highways Works Services manages the workforce. Organisational responsibilities are documented in the Service Quality Manual.
- 4.2 The Head of Highways and Municipal has overall responsibility for the Commissioning and operational function.
- 4.3 The Commissioning operations are overseen by the Senior Manager and his Area Engineers based at the area offices.
- 4.4 The Highways Services Senior Manager oversees the workforce that operate the gritting vehicles and other plant as required to undertake precautionary salting on a 24-hour basis and respond to extreme weather conditions.
- 4.5 For Winter Maintenance operations the Authority is divided into three operational areas namely, Arfon, Dwyfor and Meirionnydd with area offices at Caernarfon, Pwllheli and Dolgellau.
- 4.6 Outside normal office working hours, at weekends and at any other time when the offices are closed, an 'On Call Duty Officer System' is in operation. This is manned by the Commissioning staff and Highways Works Service staff on a 24-hour rota system.
- 4.7 In a widespread emergency, the area offices would be manned at all times by both the Commissioning and Highways Works Service staff

## 5.0 WEATHER FORECASTING SERVICE AND ICE PREDICTION SYSTEM

### 5.1 Winter Service Periods

Three Distinct Winter Service Periods are identified as follows:

MARGINAL RISK PERIOD	- severe weather not expected, October, April
LOW RISK PERIODS	- severe weather may occur, November, March
HIGH RISK PERIODS	- severe weather reasonably expected, December, January, February

### 5.2 Weather Forecasting

- The Council is currently provided with winter weather forecasting and advisory services by MetDesk.
- The service will be provided 24/7 and will run from 1 October to 30 April to correspond with the three Winter Service periods and consists of the following:

- Morning summary issued in graph format at 06:00 each day containing a summary of actual weather that has occurred in the previous 36 hours and a preliminary forecast for the following 36 hours.
- 36 hours and 2 – 10 day text forecast and graph issued at 13:00 each day for each of the five climatic domains within the County.
- Review of the forecast at 18:00
- 24hr/day unlimited direct telephone access to a forecaster with local knowledge to discuss any aspect of weather conditions.
- MetDesk forecaster to phone stand by numbers for three areas should there be a significant change in the weather.

- A plan showing the climatic domains are shown in Appendix II.
- The weather forecasts are compiled by MetDesk from data received from radar, models and eight automatic road monitoring stations.
- During normal working hours, weekends and public holidays the weather forecasting information is received via the MetDesk Website <http://www.metdesk.com>. Each officer has an individual login so access can be monitored.
- In the event of a marked change in the weather, MetDesk contacts the Duty Officers directly with any amendment to the forecast.

### 5.3 Ice Prediction System

- In addition to obtaining forecasts from MetDesk, the Council can also monitor data from road monitoring stations via the Icecast software.
- The monitoring stations are located as follows:

Route No.	Location	Map Reference	Ht(m)
A5025	Llansadwrn	SH 545 750	82
A4086	Mymbyr	SH 692 569	203
A4212	Celyn	SH 817 395	350
A499	Abersoch	SH 318 298	16
A499	Pontllyfni	SH 441 537	10
A413	Tywyn	SH 595 014	6
A5	Ogwen	SH 483 968	200
A494	Cefniddwysarn	SH 965 385	247

- Only six of the monitoring stations (Abersoch, Celyn, Pontllyfni, Tywyn, Cefniddwysarn and A5 Ogwen) are located within Gwynedd.
- Sensors installed at the weather stations store and relay information on air and road surface temperature, dew point, wind speed, precipitations and cloud cover.



## 6.0 SERVICE OPERATING PROCEDURE

### 6.1 Staffing Arrangement

For Winter Service purposes the County is divided into three areas:

- Arfon with an operating depot at Cibyn, Caernarfon
- Dwyfor with an operating depot at Afonwen, Chwilog
- Meirionnydd with operating depots at Dolgellau, Bala and Blaenau Ffestiniog, with the main operational depot being Dolgellau.

- Pre-treatment decisions during normal office hours are undertaken by designated officers within the Highways and Municipal Service in each of the three Area Offices.
- The designated officer will contact the Highways Works Service to give verbal instruction for the proposed works. This work instruction will also be confirmed in writing.
- In addition, each Area Office operates an 'out of hours', on duty system whereby duty officers within the service are available outside office hours to react to changes in the weather conditions as information becomes available. Each officer is contactable via a designated emergency telephone number (Appendix III). In the event of a change in circumstances, the duty officer contacts the Highways Works Service duty officer who then relays the information, and any varied action as necessary, to the gritting operatives.
- Contact telephone numbers within normal and out of working hours for Winter Service enquiries will be included in a full page telephone advertisement in the BT Telephone Directory for North West Wales.

### 6.2 Cross Border Liaison

Pre-treatment decisions are conveyed to NMWTRA who collate the action of all Partnering Authorities (Appendix I). NMWTRA then e-mail the relevant proposed actions to all Partnering Authorities and relevant stakeholders.

To maximise efficiencies some of Gwynedd's roads are salted by our neighbouring authorities.

Likewise, arrangements have been made where the Authority treats roads within Denbighshire and Conwy.

**In these circumstances the actions taken will be in accordance with the policy of the Authority undertaking the work.**

### 6.3 Action

The levels of action are as follows:

• Patrol	- Undertaken by Highway Inspectors for each area
• Stand by	- Of operatives at home to await call out
• Stand to	- Of operatives at depot to await instructions
• Pre Salt	- Undertaken by drivers only in gritting vehicles to apply salt at a specified rate of spread over the complete length of the scheduled routes.
• Snow Clearing	- Undertaken by driver plus one when ploughs are fitted. Salt is also applied in snow conditions but at a higher rate.

### 6.4 Operations

The Winter Service Fleet of vehicles is made up of purpose built gritting and demountable vehicles. The Fleet Manager is responsible for the maintenance of the Winter Maintenance Fleet.

The Highways Works Service Senior Manager has the responsibility of providing the operatives to man the fleet and any other vehicles that are required for the demountable gritter bodies. The fleet is maintained and serviced by the Fleet Unit workshops located within each Area.

Normal Winter Maintenance precautionary gritting operations are carried out by single manned gritters. Risk assessments for the procedures were carried out which identified lone working in potentially hazardous conditions on a high risk activity.

As a consequence all vehicles are installed with tracking devices which tracks the vehicle's position.

The system provides a panic button in each vehicle which can send an alert to the relevant manager within the Highways Works Service. Gritting data is collected via the same tracking system. All gritting vehicles are also supplied with mobile phones.

### 6.5 Application of Salt



#### 6.5.1 Precautionary Treatment

A decision making matrix, taking into account various operational scenarios is shown in Appendix IV can be modified to take account of residual salt or surface moisture.

## **7.0 PRIORITIES**

### **7.1 Pre-salting of Carriageway**

Our aim is to provide a reasonable and practicable gritting service in advance of inclement weather on the most strategic/important roads in Gwynedd known as Primary Routes such that safe passage along those roads is not endangered by snow and ice. Pre-salting of carriageways is restricted to Primary Routes and is undertaken by gritting vehicles only.

The Primary Routes (the carriageways which will have first priority) are:

- A55, A5, A487, A470, A494 Trunk Roads.
- Principal A Roads and strategic B Roads.
- Other important connecting routes which:-
  - a) Are through routes with high volumes of traffic.  
or
  - b) Provide at least one access to centres which respond to emergencies or receive emergency admissions.  
or
  - c) County Class II or III Roads which provide at least one access to towns and villages.

### **7.2 Post Salting of Carriageway**

Post salting will only be carried out during extreme weather conditions or where adverse weather conditions persist and when the relevant routes have not been treated within the preceding 36 hours. Priority will be given to keeping Primary Routes open before considering work on treating and clearing Secondary Routes followed by the remainder of the County Roads.

**The Secondary Routes (the carriageways which will have second priority) are:**

- Remaining County Class II Roads not included as first priority routes
- Other roads which provide at least one access to schools, training centres, or industrial areas
- Other County Class III Roads which provide at least one access to Hospitals or Day Health Care Centres.
- Other roads identified as requiring treatment due to steep gradients or altitude.

Post-Salting treatment will only be carried out in hours of daylight and will only be effected when resources become available having due regard to the requirements of treating Primary Routes and prevailing weather conditions.

### **7.3 Salting of Footways and Cycleways**

There shall be no pre-treatment of footways and cycleways. In addition, no post-treatment work of any sort will be considered until resources are available following keeping Primary and Secondary Routes in an acceptable condition. This includes the post treatment of main shopping areas.

#### **7.4 Snow Clearance**

Snow clearance will first be carried out on the routes scheduled for pre-treatment salting. The remainder of the network not treated will be treated in severe weather as resources become available.

#### **7.5 Salt Bins**

In addition to the precautionary , reactive and supplementary gritting service prepared by the Council ,provision and servicing of salt bins is prepared by agreement with the Community / Town Council .Salt bins are provided at specific locations of the network not identified on either the first priority gritting routes.

#### **7.6 Response and Treatment Times**

- The response time is the period between a decision being taken to begin treatment and vehicles leaving the depot which is one hour both within and outside working hours.
- All Trunk Roads in Gwynedd are treated within 2 hrs of commencement of salting.
- The treatment time for primary routes shall be approximately 3 hours but every effort is made to reduce this by improving vehicle characteristics and capacity, depot and salt location and reducing free travel on routes.
- For some routes, where more than 20 gms/m<sup>2</sup> is required to be spread, the route has to be travelled twice in order to achieve the desired rate of spread. In these circumstances the route can take up to 6 hours to complete.

## 8.0 SALT MANAGEMENT



Salt is stored at six locations as listed:

	Capacity ( Tonnes)
➤ Cibyn Depot, Caernarfon	2,500
➤ Afonwen Depot, Chwilog	3,000
➤ Ffridd Arw, Dolgellau	3,800
➤ Bala Depot	3,000
➤ Blaenau Ffestiniog	4,500
➤ Llandygai	4000

The first four locations have purpose built Salt Domes.  
At Blaenau Ffestiniog and Llandygai salt is stored undercover which are also Welsh Government Strategic Stores.

## 9.0 RESOURCES

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

### Manpower Deployment

Area	Drivers	Mechanics (Highways)
Arfon	18	4
Dwyfor	14	5
Meirionnydd	25	5
<b>Total</b>	<b>57</b>	<b>14</b>

### Plant Vehicle Deployment

Depot	Plant and Vehicle					
	Purpose Built	Ploughs	Demountable Gritter <sup>2</sup>	Dual Purpose	Snow Blower	Spare Purpose Built
Cibyn	5	8	2	0	0	1
Afonwen	6	8	0	1	0	1
Dolgellau	3	6	2	1	0	2
Bala	3	4	1	0	0	0
Blaenau Ffestiniog	3	4	0	0	0	0
Tywyn	2	2	0	0	0	0
<b>Total</b>	<b>22</b>	<b>32</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>4</b>

## GRITTING VEHICLE DETAILS

### ARFON

3540	CE68EGX	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3541	CE68EGY	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3519	KM10TJV	Gritter (Dedicated)	Volvo FE340	6x4	Romaquip
3530	DE64XZS	Gritter (Dedicated)	Mercedes Benz Arocs 3333A	6x6	Romaquip
3535	DG66JJV	Gritter (Dedicated)	Mercedes Benz Arocs 3333A	6x6	Romaquip
3522	WX64ZKA	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip

### DWYFOR

3521	WR61YSH	Gritter (Dedicated)	MAN 18.290	4x4	Romaquip
3537	KU68BYN	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3538	KU68BYO	Gritter (Dedicated)	Volvo FE340	6x4	Romaquip
3539	KU68BYP	Gritter (Dedicated)	Volvo FE340	6x4	Romaquip
3542	CE68EGZ	Gritter (Dedicated)	Volvo FE340	6x4	Romaquip
3532	DE64XZV	Gritter (Dedicated)	Mercedes Benz Arocs 3333A	6x6	Romaquip
0131	CN09CGU	Gritter (De-Mount)	Mercedes Benz Axor 2629B	6x4	Econ

### MEIRIONNYDD

3520	WR61YSG	Gritter (Dedicated)	MAN 18.290	4x4	Romaquip
3523	WX64ZKB	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3524	WX64ZKC	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3525	WX64ZKD	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3526	WX64ZKH	Gritter (Dedicated)	MAN 15.250	4x4	Romaquip
3527	WX64ZKJ	Gritter (Dedicated)	MAN 15.250	4x4	Romaquip
3528	WX64ZKK	Gritter (Dedicated)	MAN 15.250	4x4	Romaquip
3529	WX64ZKL	Gritter (Dedicated)	MAN 15.250	4x4	Romaquip
3533	CN66YMR	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3534	CN66YMS	Gritter (Dedicated)	MAN 18.250	4x4	Romaquip
3531	DE64XZU	Gritter (Dedicated)	Mercedes Benz Arocs 3333A	6x6	Romaquip
0130	CN09CGG	Gritter (De-Mount)	Mercedes Benz Axor 1824AK	4x4	Econ
3515	CN09CGF	Gritter (Dedicated)	Mercedes Benz Axor 1824AK	4x4	Econ





# Atodiad I/Appendix I

## North and Mid Wales Trunk Road Agency Weather Plan

The North & Mid Wales Trunk Road Agent (NMWTRA) is a partnership agreement between the eight local authorities of Ceredigion, Conwy, Denbighshire, Flintshire, Gwynedd, Powys, Wrexham and Ynys Môn (the Partner Authorities). Cyngor Gwynedd Council is the lead authority for the partnership and is engaged through the Welsh Government Managing Agent Agreement (WGMAA) as Agent responsible for managing a wide range of trunk road services on behalf of Welsh Government (WG), the Highway Authority. These services are in turn delivered by the Partner Authorities (PA's) Service Provider Units (SPU) or procured through frameworks with the private sector. The lead authority has established a Trunk Road Management Unit (TRMU) to implement and manage the WGMAA requirements which are expressed in further detail through the Welsh Government Trunk Road Maintenance Manual (WGTRMM).

In April 2016, NMWTRA introduced a revised Service Delivery Agreement (SDA) with the PA's within which in Annex 1, Volume C provides the specification for Adverse Weather Services to be delivered by the PA's. The specification was developed in conjunction with the South Wales Trunk Road Agent (SWTRA) and provides a common approach between Agents in so far as is possible given the different service models for delivery. In order to optimise winter maintenance operations on a predominantly rural single carriageway network NMWTRA operates an integrated County and Trunk Road route delivery model whereas SWTRA which has a high motorway and dual carriageway network has trunk road only route delivery model.

The winter maintenance season 2018/19 will utilise forecasting services provided by METDesk. In conjunction with the WGTRMM and the SDA, this Adverse Weather Plan describes the policy objectives, procedures and operational arrangements for the delivery of an adverse weather service and details the alert procedures and actions in the event of adverse weather on the trunk road network in North and Mid Wales.

The NMWTRA Partner Authorities together provide an integrated and holistic service across both the county and trunk road networks for delivering the adverse weather response, which provides additional resilience benefits.







## **Atodiad III/Appendix III**

### **Rhifau Ffon Argyfwng 24 awr 24 hr Emergency Telephone Numbers**

Arfon: 01286 677067

Dwyfor: 01766 810382

Meirionnydd: 01341 422592



# Atodiad IV/Appendix IV

## Decision Matrix Guide

		Predicted Road Conditions		
Road Surface Temperature	Precipitation etc.	Wet	Wet Patches	Dry
May fall below 1°C	No rain No hoar frost No fog	Salt before frost	Salt before frost (see note A)	No action likely, monitor weather (see note A)
Expected to fall below 1°C	No rain No hoar frost No fog			
	Expected hoar frost Expected fog	Salt before frost (see note B)		
	Expected rain BEFORE freezing	Salt after rain stops		
	Expected rain DURING freezing	Salt before frost and after rain stops (see note C)		
	Possible rain Possible hoar frost Possible fog	Salt before frost	Monitor weather conditions	
Expected snow		Salt before snow fall		
Freezing Rain	Before rain	Salt before rainfall (see note C)		
	During rain	Salt during rainfall (see note C)		
	After rain	Salt after rainfall (see note C)		

- A. Particular attention should be given to any possibility of water running across carriageways and such locations should be monitored and treated as required.
- B. When a weather warning contains reference to expected hoar frost, considerable deposits of frost are likely to occur and close monitoring will be required. Particular attention should be given to the timing of precautionary treatments due to the possibility that salt deposited on a dry road may be dispersed before it can become effective.
- C. Under these circumstances rain will freeze on contact with running surfaces and full pre-treatment should be provided even on dry roads. This is a most serious condition and should be monitored closely and continuously throughout the danger period.

## Treatment Matrix Guide

This matrix has been reproduced from WGTRMM 2016 Section 1.1.22 as follows:

Table 1.1.22 - Welsh Government Salt Treatment Matrix						
Weather Conditions, Road Surface Conditions, Road Surface Temperature (RST)	Air Temperature	Required Treatment				
		Dry Salting (g/m <sup>2</sup> )	Pre-wetted Salting (g/m <sup>2</sup> ) (see Note 1)	Pre-Coated Salting (g/m <sup>2</sup> )	Pre-coated / Pre Wetted combination (g/ m <sup>2</sup> )	Ploughing
<b>(MARGINAL CONDITIONS)</b> Frost or forecast frost, RST at or above minus 2°C and dry or damp road conditions. (Note 4 if porous / open textured surfacing)		10 (12)	10 (12)	10 (10)	10 (12)	No
Frost or forecast frost, RST at or above minus 2°C and wet road conditions. (Note 3 if wet and lightly trafficked) (Note 4 if porous / open textured surfacing)		10 (15)	12 see Note 2 (15)	10 (12)	12 see Note 2 (15)	No
Frost or forecast frost, RST below minus 2°C and above minus 5°C and dry or damp road conditions (Note 3 if damp and lightly trafficked) (Note 4 if porous / open textured surfacing)		15 (20)	15 (20)	10 (15)	15 (20)	No
Frost or forecast frost, RST below minus 2°C and above minus 5°C and wet road conditions (Note 3 if wet and lightly trafficked) (Note 4 if porous / open textured surfacing)		20 (25)	20 see Note 2 (25)	15 (20)	20 see Note 2 (25)	No
Frost or forecast frost, RST at or below minus 5°C and above minus 10°C and dry or damp road conditions (Note 3 if damp and lightly trafficked) (Note 4 if porous / open textured surfacing)		20 (25)	20 (25)	15 (20)	20 (25)	No



# Atodiad V/Appendix V

## Network Rail - Beth sydd ei angen ar Groesfannau Rheilffordd

I ddibenion y rheilffordd ni ddylid defnyddio halen i glirio wyneb croesfan rheilffordd oherwydd y perygl o fethiant i gylched ochr anghywir y trac.

Gall Network Rail benderfynu ble mae trêen ar y rhwydwaith drwy ddefnyddio cylchedau'r trac (cerrynt isel sy'n pasio drwy ran o drac a phan fo trêen yn pasio dros y lleoliad yma caiff y cerrynt eu siortio gan felly weithredu offer fel signalau).

Ond pan fo halen yn bresennol gall hyn achosi siortio fydd yn peri i gylched y trac fethu (fydd yn dangos fod trêen yn bresennol pan nad oes un yno) neu mewn achosion difrifol gall achosi methiant i gylched ochr anghywir y trac (gan ddangos bod trêen ddim yn bresennol pan fo un yno) a gall hyn achosi canlyniadau trychinebus.

**Mae Adran B.7.5.43 dogfen y Grŵp Cyswllt Ffyrdd, "*Well-Managed Highway Infrastructure: Code of Practice for Highway Maintenance Management*" (Argraffiad 2016) yn datgan**

## Network Rail – Requirements at Level Crossings

For railway purposes salt must not be used to clear level crossing surface due to the risk of wrong sided track circuit failures.

Essentially, Network Rail can determine where a train is on its network by the use of track circuits (low current passing through a section of track, when a train passes over this location the current is short circuited thereby activating equipment such as signals). But when salt is present this can cause a short circuit creating a track circuit failure (indicating a train is present when it is not) or in extreme cases cause a wrong side track circuit failure (saying a train is not present when in actual fact it is) which can cause catastrophic results.

**Section B.7.5.43** of the Roads liaison group, 'Well-Managed Highway Infrastructure: Code of Practice for Highway Maintenance Management' (2016 Edition) states that

**“Network Rail recommends that salting should not be undertaken between the stop lines of level crossings, even when covered with snow. Before ploughing over a level crossing the driver must stop and telephone the signaller for permission to proceed and then inform the signaller when past the crossing.”**