

CEREDIGION COUNTY COUNCIL

REPORT TO:	Thriving Communities Overview and Scrutiny Committee
DATE:	11 July 2024
LOCATION:	Council Chamber, Penmorfa & Zoom
TITLE:	Winter Service Provision
PURPOSE OF REPORT:	To provide a comprehensive review of the Winter Service to members of the Thriving Communities Overview and Scrutiny Committee.
REASON SCRUTINY HAVE REQUESTED THE INFORMATION	It was AGREED at the Thriving Communities Overview and Scrutiny Committee held at the Council Chamber, Neuadd Cyngor Ceredigion, Penmorfa, Aberaeron and remotely on Monday, 31 July 2023 that officers undertake a comprehensive review of the Winter Service in readiness for the 2024/25 Winter Season.
BACKGROUND	<p>The statutory basis for Winter Service was revised by the Secretary of State for Transport in the Railways and Transport Safety Act (2003)</p> <p>This legislation extended the statutory duty of highway authorities to maintain the highway by the insertion, after Section 41(1) of the Highways Act (1980), of:</p> <p>‘(1A) 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’.</p> <p>Given the scale of financial and other resources involved in delivering the Winter Service it is not deemed reasonable or realistic to:</p> <p>Provide the service on all parts of the Network nor Ensure that running surfaces are kept free of ice or snow at all times, even on the treated parts of the network.</p> <p>The various Winter Service reviews over time, since circa 2006, have, in the main, concentrated on the</p>

assessment matrix which is used to score each route and ultimately determines which routes, given the budget available, receive pre-treatment in advance of forecasted ice and / or snow.

This is known as precautionary treatment and is pre-emptive.

CURRENT SITUATION

Under the 2014 assessment matrix, the length of network which was subject to pre-treatment was set at 437.0km, and therefore to maintain this pretreatment length due to the constraints imposed by the available budget dictated by the size of the winter maintenance fleet and other ancillary plant and equipment the cut-off point for pre-treatment under the 2018 assessment matrix was to be set at +3, equating to pre-treatment network length of 427.9km.

Returning to what may be considered 'reasonable'. When comparing the percentage of the county road network which is pretreated in advance of forecasted ice and/or snow by our neighbouring authority areas, Ceredigion's % is circa 20% whilst Pembrokeshire is 19%; Powys is 19%; and Carmarthenshire is 22%.

The review undertaken in 2018 was in response to members of the committee requesting that officers review the assessment methodology used to score each route to allow consideration/recognition of the effect that altitude has on temperature and climate.

Due to investment in salt spreading technology and new vehicles since 2014, officers also undertook an assessment to ascertain whether there was scope to

increase the length of network that could be pretreated using the available fleet requiring additional/increased investment of £18k based on average winter gritting data.

This further assessment identified that there was capacity available within the existing fleet to increase

the length of network that could be the subject of pre-treatment from the 2014 level by 26.1km, which

would allow the pre-treatment to be set at +2, equating to pre-treatment network length of 463.1km

REVIEW 2024-25

The proposed update in advance of the 2024-25 Winter Season will need to align with the approved new Code of Practice for Highway Safety Inspection and Defect Rectification Policy. This code is attached in **Appendix A**.

The new code follows the recommendations and guidance provided to all 22 Welsh Authorities, who each had input in to the review undertaken by the County Surveyors Society Wales (CSSW) which advocates a purely risk-based data led assessment for the inspection and defect rectification strategy and is the cornerstone policy document for all Highways activities. It will be reflected in all future policy documents including the Winter Service Policy and the assessment within that policy which determines on a data led, risk-based assessment, those routes that are pretreated in advance of forecasted ice and/or snow.

The new assessment matrix is attached in **Appendix B** together with the existing assessment matrix for comparison.

All routes have been reassessed using the new assessment matrix resulting in the reassessment of the scores attributed to each individual route or, if appropriate, in some circumstances parts of routes.

ASSESSMENT SCORING 2024-25

The result of reassessment of route scoring using the new assessment matrix is appended in **Appendix C**.

BUDGET / PRE-TREATED ROUTE LENGTH

In 2018 the threshold for the pre-treatment was set at +2, equating to pre-treatment network length of 463.1kms and it was noted in the report at that time that this would require an increase in the winter Service budget provision of £18k for salt procurement based on an average winter season.

Following the reassessment/review in 2024 the closest network length to 463.1km coincides with a score of +1 at **458.1kms**

2018 routes achieving the threshold score following the 2024 assessment review and will now be pre-treated are,

1. Rhodfar Felin, Cardigan, +2 (0.87kms)

2018 routes not achieving the threshold score following 2024 review and will not be pre-treated are,

1. B4570 Manarafon to Cwm Cou, -1 (13.7kms)
2. C1001C Jct. C1007 Comins Coch - Capel Dewi - 7 (1.9kms)

The overall length of the network that is pre-treated will ultimately be determined by the budget made available. The draw upon this budget can be split in to two main categories, namely fixed costs, and variable costs.

COST SAVINGS / BUDGET PRESSURES

The budget for providing the winter service in 2023-24 was £232,000.

On 29/02/24, Ceredigion County Council set its budget for 2024-2025. Item 5 Appendix 2: Full List of Budget Reduction Proposals (Item 66 Review and reduce Winter Gritting routes for Winter 2024). Recommendation 3: To approve the following in relation to the Revenue Budget:
a) The Revenue Budget Requirement for 24/25 of £193.572m, as set out in Appendix 1, which includes the Budget Reduction Proposals outlined in Appendix 2.

These proposals included the budget reduction of £25k in relation to the Winter Service provision, and therefore for 2024-25 this budget has been reduced by £25,000 to £207,000, a reduction of 11%.

The review has identified additional cost pressures in the delivery of the service, and these include increases due to,

- i. Plant
- ii. Diesel +31%
- iii. Labour +13%
- iv. Materials – salt +29%

These cost pressure elements will be averaged over the last 5 year period because the budget required is subject to uncontrollable variables, that

is, how severe or mild the winters have been over that period.

BUDGET/COST SAVINGS PROPOSALS

In order to mitigate, as far as is reasonably possible, those additional cost pressures imposed by budget cuts and inflationary pressures on plant, labour, diesel, and materials the Service is proposing the following measures be considered.

1. Review winter service forecasting domains. There are currently three domains, it is recommended to increase these domains to four. The introduction of a coastal domain will result in fewer actions/runs occurring along the routes within this domain due to the warming effect of the sea. The savings would be in a reduction of driving time, salt usage and diesel to include less wear and tear on plant. Domain plans appended in **Appendix D**. No recommendation approval is required. This is deemed to be an operational decision made in accordance with the Winter Service Policy.
2. Removal of Route 5 North (R5N). This route is pre-treated using a small vehicle. The review has determined that the neighbouring Route 2 North (R2N) full size gritter has the capacity to undertake the pre-treatment of both routes. The C1001 (Primrose Hill Junction with A44 at Llanbadarn Fawr to Capel Dewi Junction with A4159 connecting to the C1004 Waun Fawr and the C1007 Comins Coch) has been assessed as two routes. C1001A (A44 to junction with C1007 and C1001C junction with C1007 and junction with A4159). See **Appendix E** for map together with the route assessment for both the C1001A and C1001C.
No recommendation approval is required. This is deemed to be an operational decision made in accordance with the Winter Service Policy for the removal of the C1001C from the pre-treated precautionary route network due to its assessment scoring of -7 which falls below the threshold score of +1 which is dictated by the overall length of the pre-treatment network length that can be pre-treated with the available budget.

3. Reduce threshold for undertaking pre-treatment of the precautionary routes from +1°C to +0.5°C.

Ceredigion, and many other authorities use a forecast temperature of +1°C and below to determine whether to pre-treat the precautionary treatment network. On many occasions the forecast received from the forecaster is termed as being 'marginal'. This is when temperatures are forecast to be between 0°C and +1°C. Weather forecasting is the application of science and technology to predict the conditions of the atmosphere for a given location and time.

Weather forecasts are made by collecting quantitative data about the current state of the atmosphere, land, and ocean and using meteorology to project how the atmosphere will change at a given place. Added to this is the forecasters experience and knowledge given the data available and interpretation of the computer-based models. The result of this manifests itself in the level of confidence that the forecaster applies to the forecast, High, Medium, and Low.

No recommendation/approval is required, this is deemed to be an operational decision, being, that for a marginal forecast between +0.5°C and +1°C with High forecaster confidence, that no action is taken to pre-treat the precautionary route network.

Has an Integrated Impact Assessment been completed? If, not, please state why

Not at this time. This report is for scrutiny to approve:

Wellbeing of Future Generations:

Summary:
Long term:
Integration:
Collaboration:
Involvement:
Prevention:

Recommendation(s): It is recommended that members of the Thriving

Communities Overview and Scrutiny Committee,

1. Recommends Cabinet approves the new assessment matrix which has been revised in order to align with the approved new Code of Practice for Highway Safety Inspection and Defect Rectification Policy which provides the Council with an enhanced and robust level of compliance with regards its duty under Section 41(1) of the Highways Act (1980).

New threshold score to determine length of pretreated network set at +1 following review.

Reasons for Recommendation (s):	To ensure that the schedule of routes for pre-treatment in advance of forecasted ice and/or snow is the most appropriate schedule
Contact Name	Phil Jones
Designation	Corporate Manager – Highway Services, Highways and Environmental Services
Date of Report:	20 June 2024

APPENDIX A (Code of Practice for Highway safety Inspections)

Code document



Code of Practice for
Highway Safety Insp

Thriving Communities Overview and Scrutiny Committee Report and Minutes



1_Scrutiny Report
Code of Practice for



2_Summary
Paper_CoP_2021.pdf



Printed minutes
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Cabinet Approval Minutes



Printed minutes
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APPENDIX B (2024 assessment matrix comparison)

ROUTE ASSESSMENT 2024 Route A123					
Item no.	Characteristic	Requirements		Score	Route A123
1	Impact on the Network	CoP Hierarchy	Traffic Band		
1.1	Traffic Volume Flows	CH1	10,000 - 20,000	2	
		CH2	5,000 - 10,000	1	
		CH3	1,000 - 5,000	0	
		CH4	200 - 1,000	-1	
		CH5	< 200	-2	
1.2	Transport Links, service buses, popular HGV route, eg milk tankers	regular bus service or HGV route		2	
		Main access to Bus Depot		2	
		Infrequent local bus service or HGV rt		1	
		taxi links, occasional HGV route		0	
		no service rare HGV		-2	
1.3	Link to other County	where treated by neighbour county		2	
		others		0	
2	Impact on the Community				
2.1	Size of settlement	>500 properties		2	
		250 - 500 properties		1	
		50 - 250 properties		0	
		<50 properties		-2	
2.2	Proximity of emergency facility	adjacent to or main access		2	
		other		0	
2.3	Severance of settlement from main network	single access to settlement		2	
		where alternative exists		0	
2.4	Maintain continuity	existing routes		2	
		others		0	
2.5	Adjacent to school on an incline without footway provision	complies with criteria		2	
		does not comply with criteria		0	
3	Economic Factor				
3.1	Access to major employment centre (Industrial Estate, Hospital, School, Offices etc)	single or main access, >50 employees		2	
		single or main access, 25 - 50 employees		1	
		alternative access		0	
		no employment centre		-2	
3.2	Access to centre of distribution or retail	single or main access to		2	
		alternative access		0	
		no centre of dist. or retail		-2	
4	Impact on Safety				
4.1	Risk Assessment 3 x 2 matrix	score of 6		2	
		score of 5		1	
		score of 4		0	
		score of 3		-1	
		score of 2		-2	
4.2	Accident records	assess accident data		2	
		no accidents		0	
4.3	Topographical Factor (Altitude above sea level)				
	High Mountainous Routes	>=300m		2	
	Highland routes	>=200m and <300m		1	
	Medium high routes	>=100m and <200m		0	
	Valley inland routes	>=50m and <100m		-1	
	Lowland routes	<50m		-2	
5	NMWTRA alternative routes				
5.1		route forms part of NMWTRA alternative route		2	
		route does not form part of NMWTRA alternative route		0	
					0

ROUTE ASSESSMENT 2023- Route A123					
Item no.	Characteristic	Requirements		Score	Route A123
1	Impact on the Network				
1.1	Strategic Impact	strategic routes		2	
		other B made		1	
		C class roads		0	
		Unclassified		-1	
		Boats etc		-2	
1.2	Transport Links, service buses, popular HGV route, eg milk tankers	regular bus service or HGV route		2	
		Main access to Bus Depot		2	
		Infrequent local bus service or HGV rt		1	
		taxi links, occasional HGV route		0	
		no service rare HGV		-2	
1.3	Traffic Flows	> 1000 vehicles/day		2	
		800 - 1000		1	
		400 - 800		0	
		<400		-2	
1.4	Link to other County	where treated by neighbour county		2	
		others		0	
2	Impact on the Community				
2.1	Size of settlement	>500 properties		2	
		250 - 500 properties		1	
		50 - 250 properties		0	
		<50 properties		-2	
2.2	Proximity of emergency facility	adjacent to or main access		2	
		other		0	
2.3	Severance of settlement from main network	single access to settlement		2	
		where alternative exists		0	
2.4	Maintain continuity	existing routes		2	
		others		0	
2.5	Adjacent to school on an incline without footway provision	complies with criteria		2	
		does not comply with criteria		0	
3	Economic Factor				
3.1	Access to major employment centre (Industrial Estate, Hospital, School, Offices etc)	single or main access, >50 employees		2	
		single or main access, 25 - 50 employees		1	
		alternative access		0	
		no employment centre		-2	
3.2	Access to centre of distribution or retail	single or main access to		2	
		alternative access		0	
		no centre of dist. or retail		-2	
4	Impact on Safety				
4.1	Risk Assessment 3 x 2 matrix	score of 6		2	
		score of 5		1	
		score of 4		0	
		score of 3		-1	
		score of 2		-2	
4.2	Accident records	assess accident data		2	
		no accidents		0	
4.3	Topographical Factor (Altitude above sea level)				
	High Mountainous Routes	>=300m		2	
	Highland routes	>=200m and <300m		1	
	Medium high routes	>=100m and <200m		0	
	Valley inland routes	>=50m and <100m		-1	
	Lowland routes	<50m		-2	
5	NMWTRA alternative routes				
5.1		route forms part of NMWTRA alternative route		2	
		route does not form part of NMWTRA alternative route		0	
					0

APPENDIX C

Assessment Scoring 2024 with continuity Traffic Counts				
				1
Road No.	Description	Length km	Assessment score	cumulative distance (km)
A486A	Llandysul By-Pass to Synod Inn	17.3	17	
	total length	17.3		17.3
Road No.	Description	Length km	Assessment score	
A475B	Horeb Jct to Lampeter, Harford Square	20.6	16	
A482	Aberaeron - Cwmanne Square	22.4	16	
A484	Cardigan - Cenarth	14.4	16	
	total length	57.4		74.7
Road No.	Description	Length km	Assessment score	
A485A	Llanfarian - Tregaron	24.4	15	
	total length	24.4		99.1
Road No.	Description	Length km	Assessment score	
A475A	Adpar at roundabout on bridge - Horeb Jct	9.7	14	
A485B	Lampeter - Tregaron	19.5	14	
B4333A	Adpar - Tanygroes	9.9	14	
A4120B	Southgate Roundabout to Morrison's Roundabout	0.59	14	
	total length	39.7		138.8
Road No.	Description	Length km	Assessment score	
A4120A	A44(T) Llanbadarn roundabout - Morrison's Roundabout	0.8	13	
	total length	0.8		139.6
Road No.	Description	Length km	Assessment score	
A486B	Synod Inn to New Quay Jct with Hill street	6.9	12	
	total length	6.9		146.5
Road No.	Description	Length km	Assessment score	
B4546	Pentwd Roundabout - Cardigan Bridge	0.5	11	
CLASS 3	Morrison's Roundabout - Mill St (Boulevard St Bric)	1.61	11	
	total length	2.1		148.6

Assessment Scoring 2024 with continuity Traffic Counts				2
Road No.	Description	Length km	Assessment score	cumulative distance (km)
B4337A	Market Square Llanybydder - Llanwnen	6.6	10	
C111	Cardigan Streets	1.6	10	
B4576	Abermad - Llangwyrfon- Bethania	15.7	10	
	total length	23.9		172.5
Road No.	Description	Length km	Assessment score	
A4159	Bow Street - Lovesgrove	3.49	9	
B4571	Adpar - Ffostrasol	10.1	9	
B4343A	Cwmanne - Llanddewi Brefi- Tregaron	17.2	9	
	total length	30.8		203.3
Road No.	Description	Length km	Assessment score	
B4333B	Tanygroes - Blaenannerch	6.7	8	
A4120C	A487(T) Jct Southgate to Ponterwyd	22.27	8	
B4343B	Tregaron - Ponrhydfendigaid	9	8	
	total length	38.0		241.3
Road No.	Description	Length km	Assessment score	
B4577A	Aberarth - Cross Inn - Bethania	12.6	7	
UT 6	Llyn y fran Road Jct B4624 to Jct B4624	1.9	7	
U/C	Junction A475 - Peterwell Terrace Lampeter	0.35	7	
A478	Glanpwllafon county Boundary to Ridgeway Roundabout	1.65	7	
	total length	16.5		257.8
Road No.	Description	Length km	Assessment score	
B4343C	Ponrhydfendigaid - Devil's Bridge	14	6	
B4337C	Temple Bar - Llanrhystud	18.1	6	
B4574A	Devil's Bridge - Jct B4574B/C1118 Cwm Ystwyth - turning point	7.6	6	
B4577B	Bethania - Tyncelyn	7.8	6	
C1010B	Gogerddan Xrds(A4159) - Penrhyncoch PO	1.78	6	
C1/C2	Hill St & Park St New Quay	0.3	6	
C1004	Penglais - Waunfawr - Lluest Jct	1.19	6	
B4624A	County boudnary (old bridge) to Groesfordd Roundabout.	2.75	6	
	total length	53.5		311.3

Assessment Scoring 2024 with continuity Traffic Counts				3
Road No.	Description	Length km	Assessment score	cumilative distance (km)
B4338D	Talgarreg - Synod Inn	4.4	5	
B4337B	Llanwnnen - Temple Bar	8.5	5	
C1001A	Jct C1007 Commins Coch - Llanbadarn	1.6	5	
B4624B	New Road, Llandysul	0.6	5	
B4342C	New quay - Llanarth	4.8	5	
U/C	Panteg Road Aberaeron	0.7	5	
C1028	Glanyrafon - Factory Bridge	0.84	5	
B4321	Llangrannog - Pentregat	6.5	5	
B4338B	Drefach - Cwrtnewydd	2.66	5	
B4340	Southgate - Pontrhydfendigaid	21.6	5	
	total length	52.2		363.5
Road No.	Description	Length km	Assessment score	
B4334A	Henllan - Aberbanc	2.1	4	
B4459A	Llanfihangel - Rhydowen	6.61	4	
C1016	Penrhynoch PO - Jct C1013/Pengar turn around	1.58	4	
ZU3423	Station Road leading to Pentood Industrial/Retail Estatae	0.26	4	
	total length	10.6		374.0
Road No.	Description	Length km	Assessment score	
B4353	Bow Street - Borth - Treddol	13.6	3	
B4572A	Llangorwen x-roads - penglais hill	2.5	3	
B4459B	Rhydowen - Talgarreg	6.85	3	
B4342A	Talsarn - Llangeitho - Trecefel	14.30	3	
UC	Alban Square	0.32	3	
C1007	Jct C1001 via Commins - Dorglwyd	0.98	3	
B4334C	Penrhiwpal - Brynhoffnant	6.85	3	
	total length	45.4		419.4
Road No.	Description	Length km	Assessment score	
B4548	Cardigan - Gwbert	4.5	2	
B4546	Ty- Johnny - Cardigan	0.95	2	
B4346	Pier St., Marine Terrace, North Rd.	1.28	2	
B4342D	Llanarth - Ystrad Aeron	15.3	2	
	Rhodfa'r Felin Cardigan	0.87	2	
B4338C	Cwrtnewydd - Talgarreg	9.2	2	
	total length	32.1		451.5

Assessment Scoring 2024 with continuity Traffic Counts 4

Road No.	Description	Length km	Assessment score	cumulative distance (km)
UC	Market St.	0.16	1	
C1003	Gwndwngwyn - Radar Bend	1.2	1	
B4343D	Tynffordd - Dyffryn Castell (splash)	2.9	1	
C1024	Radar Bend - Trem Y Bae	2.3	1	
	total length	6.6		458.1

Closest to existing 2018 pre-treatment route network in

Road No.	Description	Length km	Assessment score	
B4570	Manarafon - Cwm Cou	13.7	-1	
	total length	13.7		471.8

Road No.	Description	Length km	Assessment score	
B4334B	Aberbanc - Penrhiwpal	5	-2	
	total length	5.0		476.8

Road No.	Description	Length km	Assessment score	
B4342B	Felinfach - Hendrelas	1.48	-3	
B4338A	Highmead - Drefach	3.1	-3	
UC	Caradog Road	0.40	-3	
C1047	Cilcennin	4	-3	
C1008	Llangeitho - B4578 jct Llwyncolfa	4.31	-3	
	total length	13.3		490.1

Road No.	Description	Length km	Assessment score	
B4339	Ciliau Aeron PO - Hall	0.30	-4	
C1069	Bwlchgyroes - Brynhelyg	2	-4	
C1064	Llanafan	2.4	-4	
	total length	4.7		494.8

Assessment Scoring 2024 with continuity Traffic Counts **5**

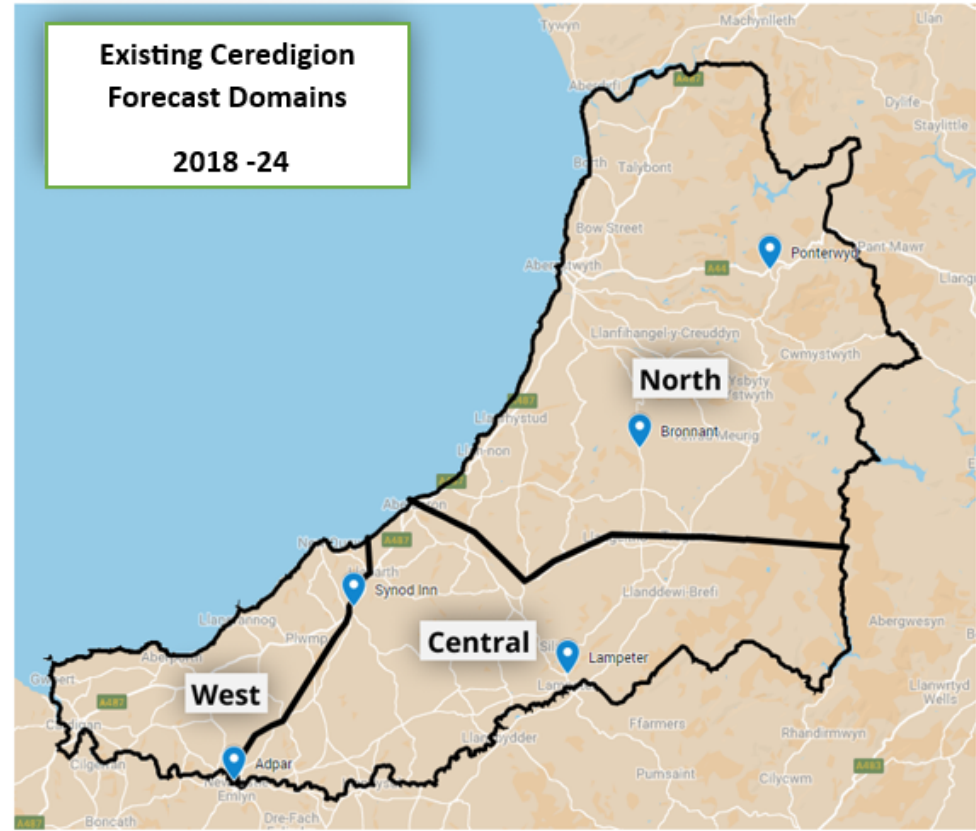
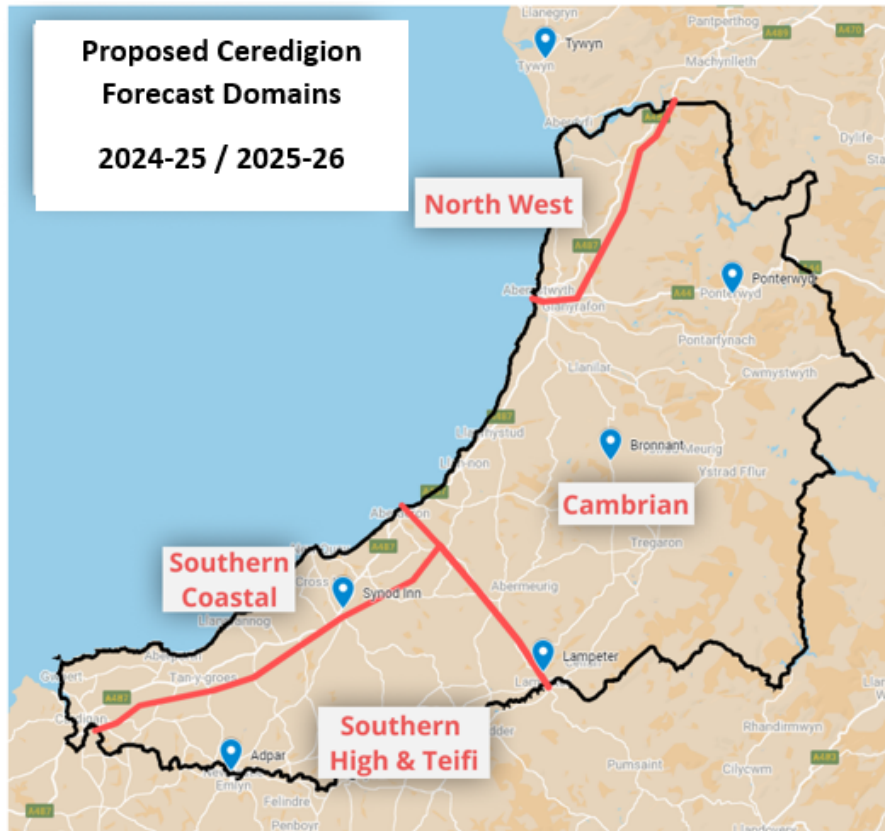
Road No.	Description	Length km	Assessment score	cumulative distance (km)
C1009	Aberporth - Tresaith	4.1	-5	
B4574B	Cwm Ystwyth - Pontrhydygroes	3.7	-5	
C1066	Brongest	5	-5	
C1152	Trefenter	2.5	-5	
B4339	Ciliau Aeron Hall - Dihewyd	3.75	-5	
C1003	Gwbert - Radar Bend	3	-5	
C1048	Caerwedros / Llwyndafydd	4.5	-5	
C1331	Church Road, Llanbadarn	0.25	-5	
	total length	26.8		521.6

Road No.	Description	Length km	Assessment score	cumulative distance (km)
B4575	Llanilar - Trawscoed	5.2	-6	
B4572	Ty Du - Borth	1.79	-6	
C1022	Pontrhydygroes Brdg - Abermagwr / new row	8.8	-6	
C1049A	Black lion - Llangorwen	2.19	-6	
C1010C	Penrhyncoch - Pen y Cwm	1.58	-6	
C1002	Blaenpennal/Bontnewydd	4	-6	
C1025	Capel Bangor Church - Rheidol Pwr St	6.62	-6	
	total length	30.2		551.8

Road No.	Description	Length km	Assessment score	cumulative distance (km)
C1282	Rhiw goch, Aberaeron	1.6	-7	
B4576	Penuwch - Bwlchyllan - Hafod Xrds	5.8	-7	
C1033	Cwrtnewydd - Alltybig (Cwmsychbant)	2.7	-7	
C1026	Llanddewi to Pont Llanio	1.5	-7	
C1005	Swyddffynnon Road	7.5	-7	
C1013	Garth jct - Loop to Capel Dewi Jct	11.2	-7	
C1128	Bwlch Llan - Cipyll	1.97	-7	
C1039	Pentrellwyn, Llandysul	2	-7	
C1001C	Jct C1007 Commins Coch - Capel Dewi	1.9	-7	
	total length	36.2		587.9

Road No.	Description	Length km	Assessment score	cumulative distance (km)
B4578	Tyncelyn - Llanio	6.70	-8	
C1076	Hendre Quarry Road ystradmeurig to Ysbytu Ystwyth	7	-8	
C1115	Pontrhydygroes to Llanafan	7	-8	
	total length	20.7		608.6

APPENDIX D



APPENDIX E – MAP

