

Route Plans 2007
Route 14
South and Central Wales
and Borders

Network Rail



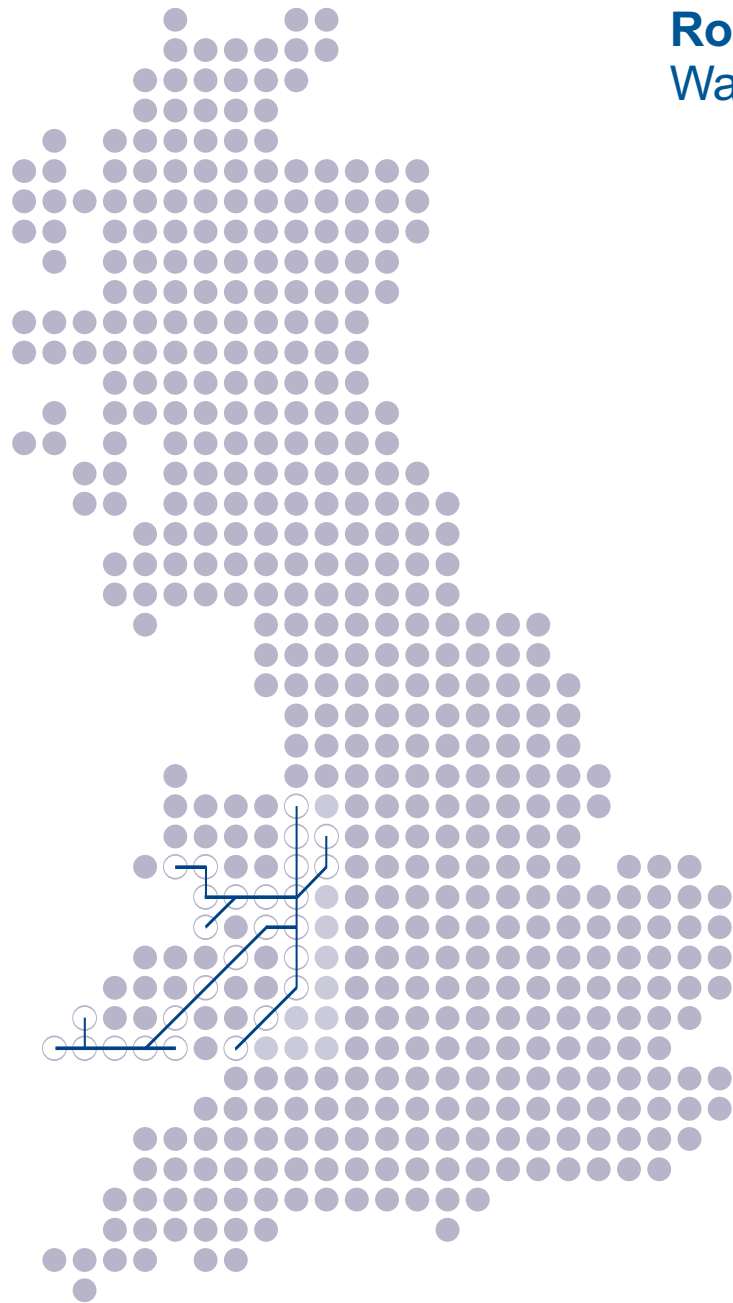
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Route 14 South and Central Wales and Borders

14 14

Today's route

The principal elements of the route are described below. The relevant Strategic Route Section is shown in brackets:

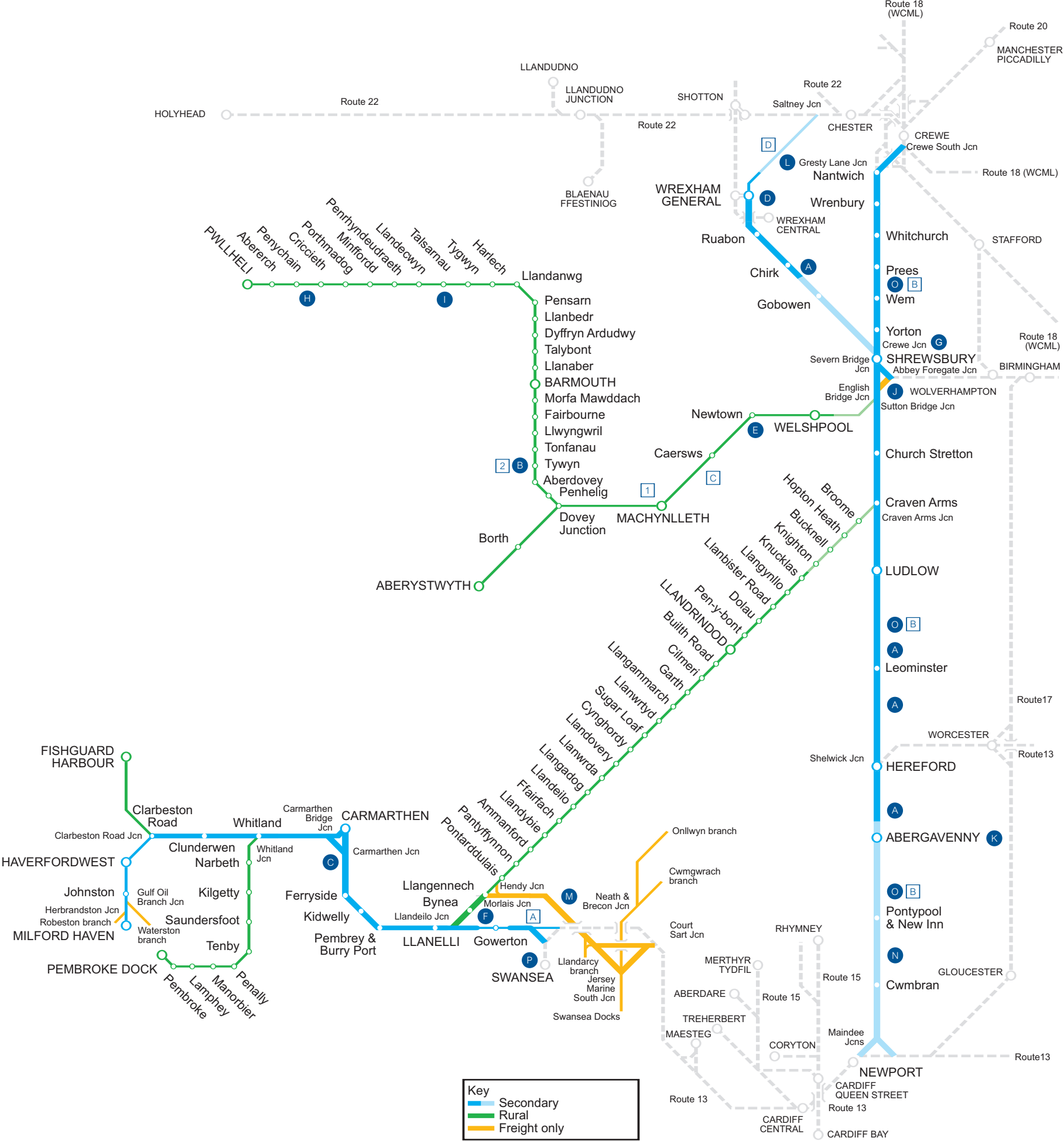
- the 'North and West' section between Crewe and Newport linking borders market towns with the county towns of Shrewsbury and Hereford, and serve multiple local demands as well as fulfilling an inter-regional role, linking the North West and South Wales, in the manner of a secondary main line (14.01 and 14.02). Shrewsbury acts as the 'hub' for three other sections:
- the 'Cambrian Lines' running westwards to Machynlleth and Aberystwyth, and around the coast to Barmouth and Pwllheli (14.06 and 14.08);
- the line north-westwards through Wrexham to Chester (14.03, 14.04 and 14.05)
- the 'Heart of Wales Line' southwestwards, from Craven Arms to Llanelli (14.07 and 14.09). The fifth component runs westwards from Swansea, beyond the end of the Great Western Main Line, to Carmarthen and Milford Haven (14.12), with two branches:
 - from Whitland to Tenby and Pembroke (14.10), and;
 - a short section beyond Clarbeston Road to Fishguard Harbour (14.11).

Route context

The majority of this extensive route lies in the rural counties of Wales and its role and usage thus reflects the demographic features of numerous small towns and generally low population densities. Services operate beyond the confines of the route such that most components have a link to the primary network whether at Crewe, Birmingham or Cardiff.

The bulk of today's traffic is passenger. A Wales Rail Planning Assessment will be published in 2007, to be followed by a Wales Route Utilisation Strategy (RUS), to cover all of Wales, and which will also take account of the considerable portion of route in the English border counties of Herefordshire, Shropshire and Cheshire.

Route 14 South and Central Wales and Borders



Passenger and freight demand

Much of the route is rural in nature, and passenger traffic patterns vary considerably between the sections, with considerable long distance flows between the West Midlands and mid Wales over the Cambrian Lines which reflect through service provision as well as competitive journey times relative to roads across mid Wales. Road competition is more acute in west Wales where the M4 and its extensions often offer more direct journey opportunities than by train as the terminal stations at Swansea and Carmarthen necessitate time-consuming reversals. Much passenger demand to and from the rural parts of Wales is naturally long distance in nature, and rail reduces peripherality in the more remote areas by giving direct links to the capitals of both Wales and England as well as to the West Midlands and the north West.

West of Shrewsbury, the Cambrian Lines serve a largely rural catchment, and nearly all services run through from Birmingham New Street to Aberystwyth, with an element of through running to and from the Cambrian Coast section between Dovey Junction and Pwllheli, where summer traffic levels still make strengthening of trains necessary. Schools traffic on the Cambrian Coast Line (to Harlech, from either direction) drives the timetable on this single track section which has few passing loops. Passenger volumes on the Heart of Wales Line reflect the much lower frequencies with less of a pattern to demand, and a very large number of halts serving small communities which in some

cases have practically no other public transport alternative. 'Heart of Wales' Line services generally run throughout between Swansea, Llanelli (where reversal takes place) and Shrewsbury, calling at all of the stations and halts, in some cases only on demand. The highly scenic character of much of the route is a factor in the promotion of rail travel for leisure in this part of Wales, along with significant seasonal fluctuations in demand in the popular holiday areas along the Cambrian Coast and around Tenby.

West of Swansea, the majority of local train services are provided by two car or single vehicle units timed to connect with London services, supplemented (between Swansea and Carmarthen) by the recently extended Manchester to Cardiff services to cater for demand on the more urban part of this section. The section beyond Clarbston Road to Fishguard Harbour is used solely by local, twice-daily trains running in connection with the Stena ferry service from Fishguard to Rosslare in southern Ireland.

Steel traffic from Llanwern in south Wales passes over the 'North & West' route (between Newport and Crewe) via Shrewsbury and Wrexham (for Shotton). In west Wales the oil refineries near Milford Haven generate long distance flows to the Home Counties. No scheduled freight services operate on either the Cambrian Lines or the Heart of Wales Line except between Morlais Junction (south of Pontarddulais) and Llanelli.

Current services

Arriva Trains Wales operates a 'Standard Pattern Timetable' for all services on the route, except in west Wales where First Great Western operates one return service per day between Carmarthen and Paddington and a summer Saturday service between London Paddington and Pembroke Dock, to address seasonal demand fluctuations.

On the north – south axis, the Standard Pattern Timetable typically offers an hourly service between Carmarthen and Manchester via Cardiff and a two-hourly service between Cardiff and Holyhead / Bangor via Wrexham mainly operated by three car trains with 100mph capability. In the north east part of the route an hourly service operates between Shrewsbury and Chester and a two-hourly service between Shrewsbury and Crewe. In mid Wales a two-hourly service operates between Shrewsbury and Aberystwyth and between Machynlleth and Pwllheli. In the south western part of the route a two-hourly service operates between Swansea and Milford Haven/Pembroke Dock. Two trains per day, in each direction, operate on the Fishguard Harbour branch. The above services are mainly operated with two car trains. Four single car trains per day in each direction operate on the Heart of Wales Line.

English, Welsh and Scottish Railway, Freightliner Heavy Haul and Freightliner Intermodal operate freight services throughout the route.

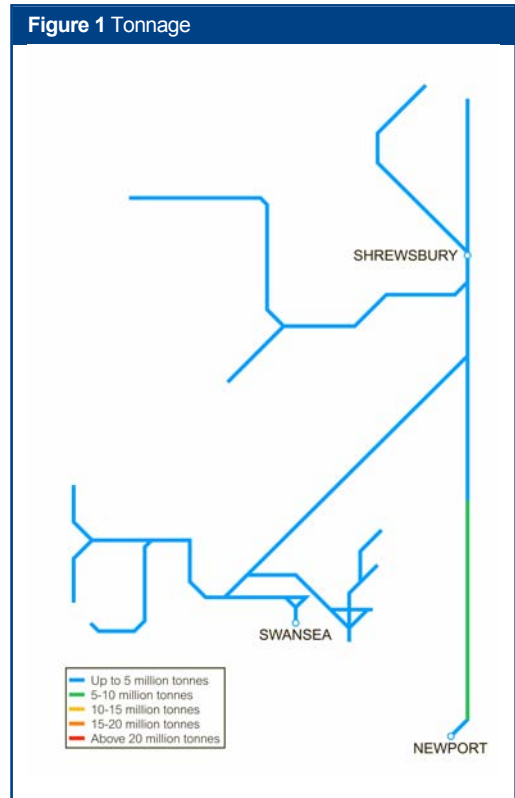


Figure 1 shows the tonnage levels on the route.

Figure 2 shows the current level of service on the route.

Figure 3 summarises Traffic volumes

Figure 2 Current train service level (trains per hour)	
Regional/Rural Services	Trains per hour each way
Swansea – Milford Haven	1 every 2 hours
Swansea – Pembroke Dock	1 every 2 hours
Swansea – Carmarthen	3 every 2 hours
Swansea – Shrewsbury (via Heart of Wales Line)	4 trains per day
Carmarthen – Manchester Piccadilly (via Cardiff)	1
Cardiff – Holyhead	1 every 2 hours
Shrewsbury – Crewe (stopping services)	1 every 2 hours
Shrewsbury – Chester	1
Shrewsbury – Aberystwyth	1 every 2 hours
Machynlleth – Pwllheli	1 every 2 hours

Figure 3 Current use			
	Passenger	Freight	Total
Train km per year (millions)	8	1	9
Train tonne km per year (millions)	817	829	1,646

Current infrastructure capability

The following maps set out the capability of the current network.

Figure 4 Line speed

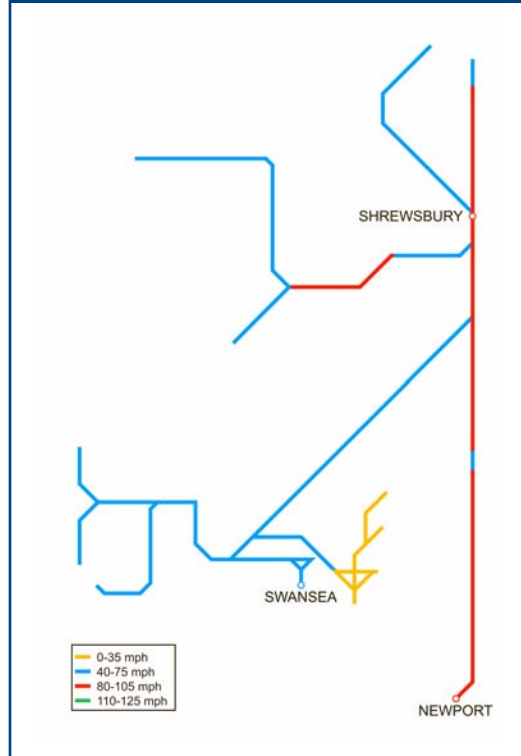


Figure 5 Electrification

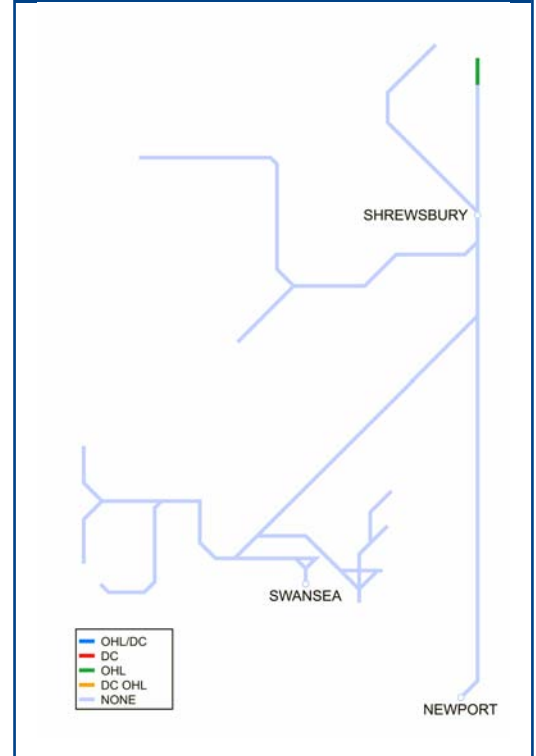


Figure 6 Route availability

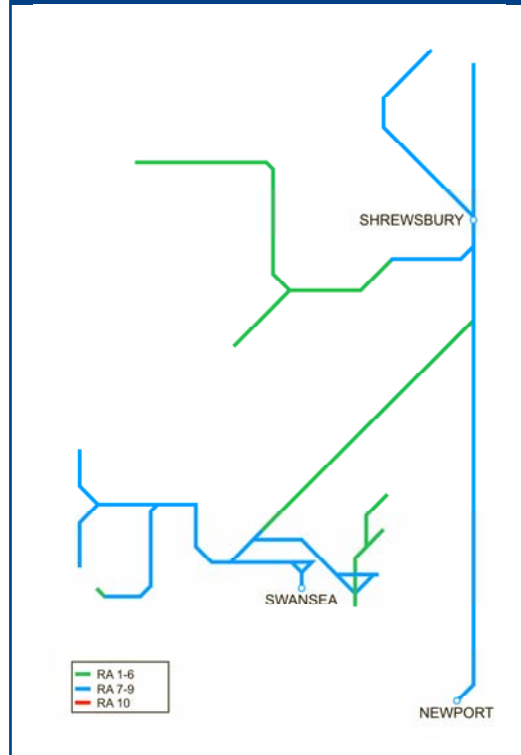
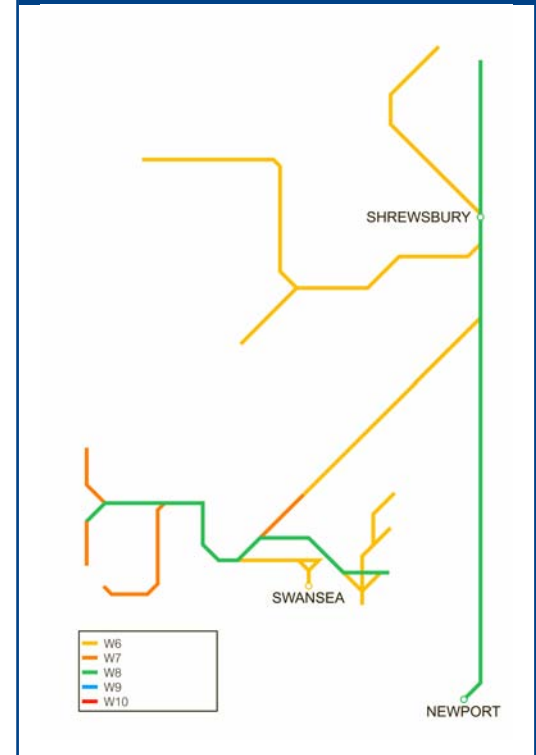


Figure 7 Gauge



Current capacity

Between Newport & Crewe or Wrexham, and beyond Swansea to west Wales, capacity is sufficient for existing volumes and the gradual reduction in freight services has tended to reduce any constraints on catering for passenger demand. On the single track Cambrian Lines section, the limited number of passing loops influences the availability of paths, but other factors off the route – principally pathing over the busy WCML and platform availability at Birmingham New Street – likewise drive overall service provision. The single track 'Heart of Wales' Line between Craven Arms and Pontarddulais has numerous passing loops, not all of which are required to sustain existing service frequencies, but which provide a contingency in the event of out of course running on this long section.

To meet forecast growth, improve overall performance and the passenger journey experience, Arriva Trains Wales have allocated their more modern two car and three car 100 mph Class 175 train fleet to all west/south Wales – Manchester long distance services. This has replaced the 90 mph two car Class 158 trains. Three car Class 175 trains provide 64 extra seats per train. Class 175 trains have also be allocated to key south Wales – north Wales services, however, a small number of Class 158s remain on some of these services.

Figure 8 shows the peak hour train service level for key sections of the route.

Current performance

The Great Western Joint Board generally meets at three-monthly intervals and comprises representatives of Network Rail, all TOCs and FOCs using Western route infrastructure, Department for Transport (DfT) and Office of Rail

Regulation, and focuses particularly on performance issues at a strategic level.

In 2005 the Network Rail Route Director, in conjunction with the Territory Maintenance Director, set up the Performance Improvement Programme (PIP) to target poor performing assets and implement 'quick win' remedial action. To date, this award-winning programme has delivered 56 of the 126 selected schemes across the Western Territory.

To improve operational management an Integrated Control Centre at Cardiff has been introduced.

We are undertaking a programme to remove Temporary Speed Restrictions, imposed due to the poor condition of track, by the end of March 2009.

Delays to the increased frequency of services west of Swansea are compounded when waiting passage across the five mile single line section between Cockett and Duffryn. Similar delays occur over the ten mile single line section between Wrexham North Junction and Saltney Junction (near Chester).

Delays on the Cambrian Line are often exported to and imported from off route and due to the length of single line sections, service recovery is difficult.

Figure 9 shows the current PPM for the main TOC running along the route.

Future requirements Strategic direction

The Department for Transport and Welsh Assembly Government's (WAG) emerging joint Wales Rail Planning Assessment (WRPA) evaluates rail traffic and infrastructure requirements for the next twenty years. The WRPA recognises

Figure 8 Current train service level (peak trains per hour)

Route Section	Peak trains per hour
'North & West', Leominster to Hereford	2
'Cambrian Lines', Newtown to Shrewsbury	1 every 2 hours
Wrexham to Chester	1
West Wales, Llanelli to Swansea	3
'Central Wales Line', Llandeilo to Swansea	1
'Central Wales Line', Knighton to Shrewsbury	nil

Figure 9 Current PPM MAA (2006/07)

TOC	MAA	As at period
Arriva Trains Wales	87.2%	11

the constraints on infrastructure capacity in south west Wales and in north Wales, and endorsed the need for development of schemes to improve performance and enhance capacity to cater for long term projected growth. The WRPA will inform Network Rail's Wales Route Utilisation Strategy (RUS) for which baseline work began in January 2007. The Wales RUS will be published in May 2008.

Future demand

The Wales Spatial Plan (published in 2004) recognised the importance of the East-West corridors for the movement of people and goods across Wales, and called for "... progressive improvements to North-South links within Wales and through England, which are important for connecting Wales as a country".

Development by the Welsh Assembly Government of a Wales Transport Strategy took place in 2005, and it is intended that transport funding will be used to further the aims of the Welsh Spatial Plan. Specific policies mentioned include some decentralisation of Welsh Assembly Government jobs to Aberystwyth, and (in the Central Wales region) enhancement to rail services through direct support, although it was noted that the area's relatively low population density makes substantial improvements to external links uneconomic.

As the hub of five different sections of route linking mid Wales with England, Shrewsbury station is clearly fundamental in enabling the levels of interchange that are sought to be achieved. Change to platforming requirements at Shrewsbury station for this corridor would have an impact upon its growing 'hub' role. A further factor which would impact upon the operation of Shrewsbury station would be the effect of line speed increases between Wolverhampton and Shrewsbury, identified in the West Midlands RUS.

There is continued interest from the Welsh Assembly Government in an improved frequency of services on the Cambrian Line from Aberystwyth to Shrewsbury and Birmingham, and opportunities to enhance the route in conjunction with the introduction of ERTMS are under consideration. The Welsh Assembly Government will contribute towards the additional infrastructure (i.e. passing-loops) that would be needed to permit improved frequencies as well as to underwrite any additional subsidy needed by the train operators for increased resource commitments.

The introduction (in December 2005) of the Standard Pattern Timetable (SPT) has improved frequencies on those sections which have been experiencing growth, to better cater for predicted demand, but based on existing infrastructure.

Future services

The current Arriva Trains Wales franchise specification does not provide for additional services within the term of the franchise. However, the Welsh Assembly Government plans to introduce an hourly service on the Cambrian Line between Shrewsbury and Aberystwyth. The Welsh Assembly Government is funding the provision of two extra carriages for services on the Cambrian Line to ease overcrowding and enhance performance on the route.

The Sewta Rail Strategy Study published in December 2006, identified the need for a half hourly local service between Cardiff and Abergavenny.

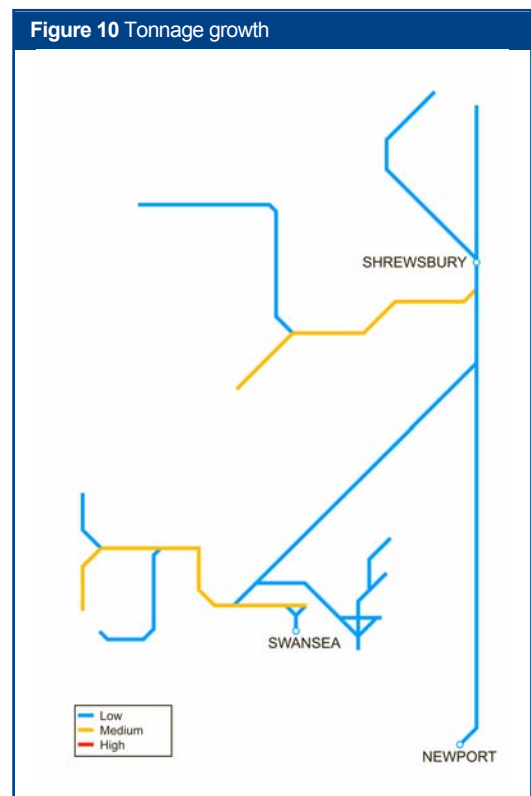


Figure 10 indicates the forecast percentage change in tonnage to 2016.

Future capability

To facilitate Sewta's aspiration for a half hourly local service between Cardiff and Abergavenny a turn back facility would be required at Abergavenny station.

New stations between Wrexham and Chester may be required to meet recommendations emerging from the Chester – Shrewsbury Rail Partnership study to cater for demand.

Additional passing loops on the Cambrian Line are necessary to facilitate the introduction of an enhanced train service and improve performance.

Redoubling of the Cockett – Duffryn single line would facilitate an additional station at Cockett and train service improvements with more frequent calls at Gowerton.

Fragile routes

Network Rail engineers have identified a set of 'fragile routes' across the country where the addition of any further loco hauled traffic would have a significant impact on the residual life of track and/or structures.

The key route section within this route that has been identified as a fragile route and has clearly defined additional tonnage/ train numbers projected by the industry, particularly for diversionary purposes, is the Heart of Wales Line (Llandeilo Junction to Pantyffynnon). Other routes identified include Whitland to Pembroke Dock, Shrewsbury to Aberystwyth and Pwllheli, and Swansea to Llanelli.

Future capacity

Arriva Trains Wales' Standard Pattern Timetable introduced long distance services between west Wales and the north west of England, via Cardiff. This and higher frequency local services west of Swansea have increased capacity utilisation between there and Llanelli, and puts pressure on the five mile long single line section between Cockett and Duffryn, which traverses Loughor viaduct. Loughor viaduct is planned to receive major repairs in 2010 and we are developing a scheme to redouble this section of single line. Consequentially, we are reviewing the usage of the Swansea District Line, west of Llandarcy, which requires major structural investment over the next five years.

We are developing schemes funded by the Welsh Assembly Government across the route. These include the redoubling of the Cockett – Duffryn and Wrexham – Chester single line sections to increase capacity, improve performance, and potentially facilitate new stations and a scheme to provide additional passing loops on the Cambrian Line to facilitate an hourly service between Shrewsbury and Aberystwyth.

At Shrewsbury we plan to reconfigure the approaches to the station from the Hereford direction to allow through working at Platform 3. This is a Network Rail funded scheme.

To the north of the route the ten mile section of single line between Wrexham and Saltney Junction (south of Chester) is a restriction on service growth. The Chester – Shrewsbury Rail Partnership is reviewing passenger demand and considering new stations and part redoubling of the single line section between Wrexham North Junction and Saltney Junction to accommodate growth in this area.

We shall continue to maximise opportunities presented by future area signalling renewal schemes to reduce signalling headways where possible to improve capacity and performance.

We believe that the solution to passenger growth and future capacity requirements for the sections of route with a higher capacity utilisation can be met by a combination of train lengthening, and where appropriate supported by platform lengthening and incremental enhancements (which can be delivered as improvements to planned track, structures and signalling renewals) and certain limited stand alone enhancements. These have the potential to improve performance (necessary for growth), enable specific increases in train paths and facilitate timetable restructuring.

Any future capacity enhancements will take consideration of freight companies' aspirations, particularly over the North and West route.

Future performance

In addition to continued improvement in asset reliability, a major focus of attention going forward is the work necessary to devise more robust train timetables. Network Rail is working closely with Arriva Trains Wales to gain operational experience

Figure 11 Forecast reduction in delay minutes

	2007/08	2008/09
% reduction in delay minutes	15%	23%

Figure 12 Forecast PPM MAA

TOC	2007/08	2008/09
Arriva Trains Wales	87.9%	88.5%

of its Standard Pattern Timetable and to support and improve its performance. Resource plans that are robust in terms of recovery from incidents are being developed.

The introduction of a new signalling control centre for South Wales will deliver greater operational and performance management benefits for all our customers.

Figure 11 shows the forecast reduction in Network Rail delay minutes compared with 2006/07.

Figure 12 shows the forecast PPM for the main TOCs running along the route.

Engineering access

The Newport – Crewe route features key seven day per week freight flows and has a strategic role in handling freight diverted from the route between Crewe, Wolverhampton, Birmingham and Gloucester. Thus it is complex to assess for engineering access.

For engineering access purposes the route divides broadly into three sections – south, mid and north. On the south between Newport (Maindee West Junction) and Hereford, and mid, between Hereford (Shelwick Junction) and Shrewsbury (Sutton Bridge Junction), restrictive midweek night access is routinely available through single line working. However, diversionary activity frequently affects the pattern.

On the northern section between Shrewsbury (Crewe Bank) and Crewe (Gresty Lane), access is heavily restricted to two opportunities per year single line working.

Between Shrewsbury (Crewe Junction) and Chester (Saltney Junction), midweek nights access can be granted.

On the Cambrian Lines, midweek nights access can be granted, based around start-up times of empty stock workings from Machynlleth depot. The installation works for ERTMS, due for completion

by the end of 2008 will result in increased access requirements for driver training, rolling stock modification and commissioning purposes. Major work tends to take place in the school holidays by agreement with Arriva Trains Wales.

The west Wales section divides broadly into two sub-sections. Between Swansea and Llanelli, midweek nights access can be granted provided that this does not conflict with periods when the Swansea District Line (between Briton Ferry and Llandeilo Junction via Llangyfelach) is under occupation. Beyond Llanelli, midweek nights access can be granted, with single line working on the double track section to Clarbeston Road (provided that the night-time Fishguard boat-train can still be passed).

On the Heart of Wales section (north of Morlais Junction through to Craven Arms), ample midweek nights access is available. The route is maintained to W5 standard because it is essential for occasional EWS diversions for Margam and Llanwern traffic when the south Wales route is closed (e.g. for signalling commissioning).

Opportunities and challenges

We recognise that the low levels of growth forecast for the more rural parts of the route may well increase depending on the success of the Standard Pattern Timetable.

The Welsh Assembly Government is seeking to maximise the 100 mph capability of the Arriva Trains Wales Class 175 fleet over the route between Newport and Crewe. The route is mainly restricted to 70 mph with a 90 mph differential speed limit and would need substantial investment to achieve 100 mph capability.

The Welsh Assembly Government is investigating the possibility of operating Arriva Trains Wales two car Class 158 trains on the Heart of Wales line to replace the Class 153 single car trains that currently operate over the route. This would provide an additional 72 seats per train. However, this will require gauge clearance through some stations.

Delivering future requirements Expenditure

The most significant individual renewal items are outlined in the tables below. However, the precise timing and scope of renewals remains subject to review to enable us to meet our overall obligations as efficiently as possible consistent with reasonable requirements of operators and other stakeholders.

The age of rail and sleepers on the route is amongst the highest on the national network and varies between 30 and 40 years old and to address this we are implementing a track renewals strategy which matches the traffic usage of the route. This will include targeted renewals and ballast cleaning on the most heavily used sections and patch repairs and renewals to maintain stable infrastructure on the more rural lines.

Figure 13 shows the planned level of expenditure on renewals on this route over the next two years.

Figure 13 Forecast expenditure		
£m (2006/07 prices)	2007/08	2008/09
Renewals		
Track		
Plain line	12	14
Switches and crossings	–	6
Track total	12	20
Civils		
Underbridges	3	2
Overbridges	0	–
Bridgeguard 3	0	–
Footbridges	–	0
Earthworks	2	0
Tunnels	0	–
Coast and estuary defence	1	2
Major structures	0	1
Civils total	6	5
Signalling		
Resignalling	–	0
Minor works/other	8	10
Over-planning	(0)	–
Signalling total	8	10
Telecoms		
Concentrators		
Small	0	–
Other	0	–
Telecoms total	0	–

Operational property		
Stations		
Franchised	–	1
Operational property total	–	1
Plant and machinery		
Fixed plant		
Point heating	0	0
Signal supply points	0	0
Other	0	0
Plant and machinery total	1	1
Total Renewals	27	37
Enhancements (funded by)		
Network Rail		
Planned		
ERTMS Cambrian	24	22
ERTMS programme	10	14
Total	34	36
Potential schemes	5	6
Total	39	42
Network Rail (RAB)		
Potential schemes	2	10
Total	2	10
Welsh Assembly		
Planned		
South Wales platform extension	11	0
ERTMS Welsh Assembly Government (WAG)	4	1
Total	16	1
Other third party		
Planned		
Other	–	0
Total	–	0
Potential schemes	1	–
Total	1	0
Total Enhancements	58	53

Figure 14 Forecast volumes

	2007/08	2008/09
Track		
Plain line (km)		
Rail	21	25
Sleepers	21	24
Ballast	22	26
Total	65	75
Switches & crossings (no.)		
Complete renewal	–	13
S&C (equivalent units)	–	13
Civils		
Underbridges (m ²)	2,016	966
Overbridges (m ²)	105	–
Bridgeguard 3 (m ²)	66	–
Footbridges (m ² decking area)	–	46
Earthworks (m ² slope surface)	10,350	–
Tunnels (m ²)	10	–
Coast and estuary defence (lm)	400	960

The planned volume of renewals is detailed in Figure 14.

It should be noted that in order to manage the deliverability of our Civils, Signalling & Electrification plans we have included an element of overplanning in our work banks. As a consequence the sum of our route plans exceeds our plan for the network as a whole. It is likely that a small proportion of the activities in these areas will slip to subsequent years.

Maintenance

Figure 15 shows the planned level of expenditure on maintenance on this route over the next two years.

Figure 15 Forecast expenditure

£m (2006/07 prices)	2007/08	2008/09
Maintenance	26	24

Infrastructure investment

Figure 16 highlights schemes that are planned for completion in the financial year shown.

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage	Completion Year
A Track Renewals (14.02 & 14.04)	Plain line renewals at Orleton and Rhosymedre	Renewal	Track	Network Rail		2007/08
B Aberdovey Cutting (14.06)	Stabilisation works	Renewal	Earthworks	Network Rail	4	2007/08
B Abertafol (14.06)	Stabilisation works	Renewal	Earthworks	Network Rail	4	2007/08
B Tywyn (14.06)	Sea Defence strengthening	Renewal	Structures	Network Rail	4	2007/08
C Carmarthen Viaduct (14.12)	Strengthening works	Renewal	Structures	Network Rail	3	2007/08
A Track Renewals (14.01 & 14.02)	Plain line renewals at Pontilas, St Devereux and Wellington	Renewal	Track	Network Rail		2008/09
G Track Renewals (14.02)	S&C renewals at Crewe Junction	Renewal	Track	Network Rail		2008/09
D Croes Newydd (14.03)	North Fork Signal box renewals	Renewal	Signals	Network Rail	1	2008/09
E Cambrian Lines (14.06)	Additional passing loops	Facilitate hourly train service	Track, signals	Network Rail/ Welsh Assembly Government	1	2008/09
F Loughor viaduct (14.12)	Strengthening works	Renewal	Structures	Network Rail	3	2008/09
G Battlefield Embankment (14.02)	Stabilisation works	Renewal	Earthworks	Network Rail	2	2009/10
H Afon Wen (14.06)	Sea Defence strengthening	Renewal	Structures	Network Rail	3	2009/10
I Traeth Bach viaduct (14.06)	Strengthening works	Renewal	Structures	Network Rail	2	2009/10

Figure 17 highlights other schemes under consideration.

Figure 17 Infrastructure investment under consideration						
Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage	
J	Abbey Foregate Loop (14.02)	Reduce double track loop to single track	Track, signals	Network Rail	1	
G	Shrewsbury platform 3 (14.02)	Direct access to platform 3 from the Craven Arms direction	Track, signals	Network Rail Discretionary Fund	3	
L	Wrexham North Junction – Saltney Junction single line (14.03)	Options to redouble single line sections in part or whole	Earthworks, structures, track, signals	Welsh Assembly Government	1	
F	Cockett – Duffryn single line (14.12)	Reinstate double track	Earthworks, structures, track, signals	Network Rail/ Welsh Assembly Government	1	
M	Swansea District Line (14.14)	Review usage west of Llandarcy – linked to Cockett – Duffryn redoubling	Earthworks, structures, track, signals	Network Rail	1	

Figure 18 highlights Route enhancement aspirations

Figure 18 Route enhancement aspirations					
Project	Project description	Output change	Main asset type(s)	Funding	Status
N	Caerleon (14.01)	New station	Stations	Third party	Proposed under Sewita rail strategy
K	Abergavenny (14.01)	Turnback facility	Track, stations, signals	Third party	Proposed under Sewita rail strategy

Figure 18 Route enhancement aspirations

Project	Project description	Output change	Main asset type(s)	Funding	Status
○ Newport – Crewe (14.01 & 14.02)	Linespeed increase	Maximise the 100mph capability of Arriva Trains Wales Class 175 fleet	Track	Third party	Welsh Assembly Government aspiration
● Swansea Loop East Junction (14.12)	Junction layout revised	Improved capacity and capability	Track, signals	Third party	SWWITCH proposal

Non infrastructure developments

Figure 19 shows potential developments which do not involve changes to the infrastructure.

Figure 19 Timetable development

Description	Key issues	Actions or options being developed	Benefits	Target timetable implementation
Cambrian Line service enhancement	Increase in frequency to hourly service	Timetable review	Enhanced service frequency	2008

Appendix

Figure 20 Strategic route sections

Predominant aspect recorded (secondary aspects recorded in brackets) ELR is Engineers Line Reference and RA is Route Availability												
SRS	SRS Name	ELR	Classification	Funding	Community Rail	Freight Gauge	RA	Speed	Electrification	Signalling Type	Signalling Headway	No of Tracks
14.01	Newport – Pandy (North and West Route, Wales)	MAI, HNL1	Secondary	DfT	No	W8	8	80	none	AB	(AB)	2
14.02	Pandy – Crewe (North and West Route, England)	SYC, WSJ, SHL, HDC, HNL1	Secondary	DfT	No	W8	8	90	none	AB	(AB)	2
14.03	Shrewsbury – Chester South (England)	WSJ	Secondary	DfT	No	W6A	8	70	none	AB	(AB)	2
14.04	Shrewsbury – Chester Central (Wales)	WSJ	Secondary	DfT	No	W6A	8	60	none	AB	(AB)	2
14.05	Shrewsbury – Chester North (England)	WSJ	Secondary	DfT	No	W6A	8	60	none	TCB	(AB)	1
14.06	Cambrian Lines (Wales)	SBA,DJP	Rural	DfT	No	W6A	5	80	none	RETB	(n/a)	1
14.07	Craven Arms – Knighton (Heart of Wales line, England)	CWL1	Rural	DfT	Yes	W6A	5	60	none	NSKT	(n/a)	1
14.08	Sutton Bridge Jn – Border (Welshpool)	SBA	Rural	DfT	No	W6A	7	75	none	RETB	(n/a)	1
14.09	Llanelli – Knighton (Heart of Wales line, Wales)	CWL1,CWL2,V OT,LLA	Rural	DfT	Yes	W6A	5	60	none	NSKT	(n/a)	1

Figure 20 Strategic route sections

Predominant aspect recorded (secondary aspects recorded in brackets) ELR is Engineers Line Reference and RA is Route Availability												
SRS	SRS Name	ELR	Classification	Funding	Community Rail	Freight Gauge	RA	Speed	Electrification	Signalling Type	Signalling Headway	No of Tracks
14.10	Pembroke Dock – Whitland Jn	PEM	Rural	DfT	No	W7	6	50	none	OTW	(AB)	1
14.11	Fishguard – Clarbeston Road Jn	CRL, NPF	Rural	DfT	Yes	W6A	7	55	none	OTW	(AB)	1
14.12	Swansea – Milford Haven	SWL_SWM2,C AN, CNW	Secondary	DfT	No	W8	8	75	none	TCB/AB	6	2
14.13	Freight Lines (England)			DfT	No				none			
14.14	Freight Lines (Wales)			DfT	No				none			

Figure 21 Capacity and operational constraints

- A Cockett – Duffryn: Single line limits capacity
- B Newport – Crewe: Existing line speeds restrict journey time improvements
- C Cambrian Line: Single line sections limit capacity
- D Wrexham North Junction – Saltney Junction: Single line limits capacity

Figure 22 Other issues on the route

- 1 Cambrian line: ERTMS test route
- 2 Tywyn Sea Defences: require constant monitoring

Note

This Route Plan forms part of the business plan suite of documents which is produced annually and in accordance with our network licence condition 7. Our plans and the way in which we intend to achieve those plans are summarised in the Business Plan itself. This document provides further detail on the specific plans for this Strategic Route including the expenditure over the next two years to the end of Control Period 3.

This year our business plan focuses on the remainder of Control Period 3 (to March 2009). We shall provide a submission to the Office of Rail Regulation in October 2007, which will set out our view of the expenditure and activities that will be required in Control Period 4 (2009/10 to 2013/14).

The Route Plan shows in more detail how the strategies set out in the Business Plan will be delivered at a route level across the network, and how we are working with our customers and other stakeholders to improve the

performance and utilisation of the network. It presents a portfolio of activities to develop the network.

The expenditure section contains tables showing the planned level of expenditure and volumes on renewals on the route over the next two years, split by asset category. Expenditure figures are shown in 2006/07 prices, and are rounded to the nearest £1 million. An entry of £0 indicates spend of less than £0.5 million. It should be noted that in order to manage the deliverability of our Civils, Signalling & Electrification plans we have included an element of overplanning in our work banks. As a consequence the sum of our route plans exceeds our plan for the network as a whole. It is likely that a small proportion of the activities in these areas will slip to subsequent years.

Please note that figures in tables may not sum to the totals shown, because of rounding.

The other documents in the business plan suite can be found on the Network Rail website www.networkrail.co.uk



This Route Plan is part of a set.
To view or download the others
visit www.networkrail.co.uk