

CP5 Delivery Plan

2018/19 Update

Network Rail's Delivery Plan for Control Period 5 – 2018/19 Update

Purpose

This document sets out what we plan to deliver in the final year of Control Period 5 (CP5), which runs from April 2014 to March 2019. The forecast outputs reflect the latest annual update to our plans, based on four years of actual delivery out of the five year period. The updated plans are set alongside the original CP5 Delivery Plan for comparative purposes.

The outputs framework in CP5

The outputs framework for CP5 consists of formal regulated outputs, indicators which are used for monitoring purposes, and enablers which assess the capability of the company in both the short and long term.

Final Determination

Network Rail accepted ORR's Final Determination in February 2014 but in doing so highlighted our concern that the regulated outputs for train performance were unlikely to be achievable (particularly in the first two years of the Control Period). Notwithstanding our commitment to deliver these outputs, we have not met the England and Wales or Scotland passenger train performance targets in the first four years of CP5.

Key changes since original CP5 Delivery Plan

The key changes compared to the original CP5 Delivery Plan are:

- Overall train performance in 2017/18 has been below the level we set out to achieve. A number of factors influenced PPM during 2017/18; these included Network Rail asset reliability, operational issues (such as planning of the timetable and management of the train service on the day), train operator rolling stock and crewing issues, and third party impacts which are managed by Network Rail on behalf of the industry.
- Year on year performance in England and Wales for PPM improved by 0.2 percentage point from 2016/17 to 2017/18. This is the first year that we have seen an improvement in PPM in England & Wales since 2011/12.
- As a result of higher costs within available funding, output volumes of both renewals and maintenance activities are overall lower than originally planned. Performance also reflects the challenge of delivering consistent performance on one of the busiest railways in Europe whilst maintaining and improving the aging infrastructure.
- There are significant changes to each route's work mix and scope against those originally set out, reflecting updated knowledge of asset conditions and revised workbanks for each deliverer.

Change control and updates

This is the final annual update of the CP5 Delivery Plan. Next year Network Rail will provide the baseline delivery plan for CP6, which runs from April 2019 to March 2024.

Regulated outputs

Formal regulated outputs as set out in ORR's CP5 Final Determination. A failure to deliver these outputs could result in a formal investigation as to whether Network Rail has done everything reasonably practicable to deliver the output.

Performance

Table 1: PPM - England & Wales and Scotland

	BP18					Delivery Plan (mar 2014)					
	2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
England & Wales											
Actual / forecast	89.6%	88.9%	87.4%	87.6%		89.8%	91.0%	91.5%	92.3%	92.4%	92.5%
Target	91.9%	92.1%	92.3%	90.0%	89.0%	92.6%	91.9%	92.1%	92.3%	92.4%	92.5%
Scotland											
Actual / forecast	90.5%	90.6%	90.3%	89.5%		91.1%	92.0%	92.0%	92.0%	92.0%	92.5%
Target	92.0%	92.0%	92.0%	91.7%	91.5%	92.0%	92.0%	92.0%	92.0%	92.0%	92.5%

Commentary

The Public Performance Measure (PPM) shows the percentage of trains which arrive at their destination within five minutes of their scheduled arrival time (ten minutes for long distance services). The England and Wales forecast is the weighted sum of the individual operator forecasts.

Table 2: PPM - franchised TOCs

	BP18					Delivery Plan (mar 2014)						
	2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	CP5 exit
Franchised operators												
Abellio Greater Anglia	89.9%	89.3%	88.8%	88.9%	89.7%	91.8%	92.3%	92.6%	92.7%	92.8%	92.8%	90% min
Arriva Trains Wales	93.0%	92.2%	91.9%	92.2%	91.8%	93.1%	93.5%	94.0%	94.2%	94.4%	94.5%	90% min
c2c	96.9%	96.7%	94.5%	95.3%	96.0%	96.6%	97.0%	97.1%	97.1%	97.0%	97.0%	90% min
Chiltern Railways	95.0%	94.4%	93.1%	92.6%	93.8%	94.9%	94.9%	95.0%	95.0%	95.0%	95.0%	90% min
CrossCountry	88.8%	89.5%	89.7%	87.7%	90.0%	86.9%	89.0%	90.0%	90.8%	90.8%	90.8%	90% min
Virgin Trains East Coast	88.6%	85.2%	83.1%	81.5%	83.8%	84.0%	86.0%	86.5%	87.0%	87.8%	88.0%	88% min
East Midlands Trains	92.1%	92.8%	92.0%	91.9%	91.7%	91.3%	93.0%	93.2%	93.3%	93.3%	93.5%	90% min
Govia Thameslink Railway	83.8%	81.5%	74.2%	81.3%	83.1%	86.1%	88.0%	89.2%	89.7%	89.7%	90.0%	90% min
First Great Western	88.9%	89.5%	88.4%	85.5%	87.6%	87.8%	90.3%	91.1%	91.8%	91.9%	92.0%	90% min
<i>FGW High Speed Services</i>							85.2%	86.4%	87.3%	87.6%	88.1%	88% min
ScotRail	90.5%	90.6%	90.3%	89.5%	91.5%	91.1%	92.0%	92.0%	92.0%	92.0%	92.5%	92.5% min
First TransPennine Express	88.6%	87.8%	88.8%	86.3%	88.5%	90.3%	91.0%	91.5%	91.5%	92.0%	92.2%	90% min
London Midland	88.0%	88.1%	88.8%	87.5%	88.8%	85.7%	87.0%	88.2%	89.5%	89.8%	90.0%	90% min
London Overground	95.0%	94.4%	94.5%	94.4%	95.1%	96.2%	97.0%	97.0%	97.0%	97.0%	97.0%	90% min
Merseyrail	95.6%	95.3%	95.8%	94.9%	95.1%	95.8%	96.0%	96.0%	96.1%	96.2%	96.3%	90% min
Northern	90.9%	90.7%	91.1%	88.2%	90.0%	90.9%	91.4%	92.2%	92.9%	93.0%	93.1%	90% min
South West Trains	90.1%	90.1%	87.1%	84.3%	86.5%	89.6%	92.0%	92.5%	93.0%	93.5%	94.0%	90% min
Southeastern	89.3%	86.9%	86.1%	88.7%	90.5%	89.3%	90.5%	90.5%	90.5%	90.4%	90.8%	90% min
Virgin Trains West Coast	84.7%	86.0%	89.1%	84.2%	87.0%	85.2%	85.5%	86.2%	87.0%	87.4%	88.0%	88% min
Caledonian Sleeper	89.9%	86.0%	89.2%	85.7%	89.3%							
TfL Rail	91.7%	94.0%	94.7%	93.4%	93.5%							

Commentary

Individual train operator level performance trajectories are currently being finalised with the TOCs as part of the annual performance strategy planning process. These figures represent the Network Rail view as of the 31st March 2018

The first year target of each Performance Strategy will be subject to scrutiny by ORR. Recognising that there will be variability around the achievement of Performance Strategy targets, ORR has set a floor of 2 percentage points below the agreed Performance Strategy PPM commitments for the first year targets.

Commentary

For all but two regulated operators in England & Wales there is a regulated output to achieve 90 per cent PPM by the end of the control period. Virgin trains and East Coast have a dual PPM and CaSL target, with a target of 88 per cent PPM. The 88 per cent PPM minimum requirement also applies to First Great Western high speed services, in addition to the 90 per cent for all the services it runs.

Table 3: CaSL - England & Wales

	BP18	Delivery Plan (mar 2014)									
		2013/14	2014/15	2015/16	2016/17	2017/18	2018/19				
England & Wales											
Actual / forecast	2.9%	3.1%	4.0%	3.9%	3.3%	2.9%	2.4%	2.3%	2.2%	2.2%	2.2%
Target	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%

Commentary

CaSL (Cancellation and Significant Lateness) is a combined measure of punctuality and reliability. It is a percentage measure of scheduled passenger trains which are either cancelled (including those cancelled en route), miss one or more scheduled stops or arrive at their scheduled destination 30 or more minutes late.

Table 4: CaSL - franchised TOCs

	BP18					Delivery Plan (mar 2014)					
	2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Franchised operators											
Abellio Greater Anglia	2.6%	2.8%	3.1%	3.3%	2.9%	2.2%	1.6%	1.6%	1.6%	1.6%	1.6%
Arriva Trains Wales	2.6%	2.7%	2.9%	3.0%	2.9%	2.6%	2.4%	2.3%	2.2%	2.2%	2.1%
c2c	1.3%	1.3%	2.2%	2.3%	1.9%	1.5%	1.1%	1.1%	1.2%	1.2%	1.2%
Chiltern Railways	1.6%	1.4%	1.8%	1.8%	1.4%	1.6%	1.4%	1.4%	1.4%	1.4%	1.4%
CrossCountry	4.5%	3.9%	4.0%	4.9%	3.9%	5.2%	4.5%	4.2%	4.0%	4.0%	3.9%
Virgin Trains East Coast	3.7%	5.5%	6.9%	6.8%	5.7%	5.9%	5.4%	5.1%	5.0%	5.0%	4.2%
East Midlands Trains	2.0%	2.0%	2.4%	2.3%	2.1%	2.6%	2.2%	2.1%	2.1%	2.1%	2.0%
Govia Thameslink Railway	4.6%	5.3%	9.2%	6.2%	5.3%	4.0%	3.0%	3.4%	3.4%	3.4%	3.3%
First Great Western	3.0%	2.6%	3.0%	4.6%	3.5%	3.4%	2.5%	2.3%	2.2%	2.1%	2.1%
First TransPennine Express	4.3%	5.8%	5.0%	6.0%	4.3%	4.8%	3.5%	3.6%	3.6%	3.5%	3.5%
London Midland/West Midland	2.8%	2.9%	2.9%	3.7%	2.5%	3.6%	2.7%	2.6%	2.5%	2.5%	2.5%
London Overground	1.8%	2.2%	2.3%	3.0%	2.5%	1.9%	2.0%	1.8%	1.8%	1.8%	1.8%
Merseyrail	1.9%	1.9%	1.7%	2.0%	1.9%	1.7%	2.0%	2.0%	1.9%	1.9%	1.9%
Northern	1.8%	1.7%	1.9%	2.5%	2.1%	1.8%	1.9%	1.7%	1.6%	1.7%	1.6%
South West Trains	2.7%	2.8%	3.6%	4.5%	3.7%	3.0%	2.1%	1.9%	1.8%	1.7%	1.5%
Southeastern	2.8%	3.6%	4.0%	3.4%	3.0%	3.2%	2.5%	2.5%	2.5%	2.5%	2.5%
Virgin Trains West Coast	5.0%	4.7%	3.9%	6.3%	2.9%	5.0%	4.0%	3.8%	3.8%	3.5%	2.9%
TFL	3.0%	2.6%	2.7%	3.1%	5.1%						

Table 5: Freight Delivery Metric - Network-wide

	BP18	Delivery Plan (mar 2014)										
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Actual / forecast		94.3%	94.3%	94.3%	93.5%	94.0%	93.5%	92.5%	92.5%	92.5%	92.5%	92.5%
Target		92.5%	92.5%	92.5%	92.5%	92.5%		92.5%	92.5%	92.5%	92.5%	92.5%

Commentary

The ORR has set a target to maintain freight performance at 92.5% moving annual average (MAA) throughout CP5.

Commentary

The freight Delay Metric (FDM) measures the percentage of freight trains arriving at their destination within 15 minutes of scheduled time. It only covers delay caused by Network Rail and non commercial freight operators

Network Availability

Table 6: PDI-P - Network-wide

	BP18						Delivery Plan (mar 2014)						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5 exit	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	CP5 exit
Actual / forecast	0.71	1.10	1.25	1.53			0.65	0.79	0.81	0.80	0.70	0.58	0.58
Target		0.79					0.63						0.58

Commentary

PDI-P ended 2016/17 at 1.25 per cent, significantly higher than expected when the original forecasts for CP5 were made. However, service group changes resulting from changes to franchises mean that this out-turn is unreliable, not representative of our performance and not comparable with the regulatory targets that were set by the ORR before the start of the control period.

We do not believe that PDI metrics are now a reliable indicator of network availability.

Furthermore, PDI measures are not used by our business to inform possession planning decisions and we are further aware that PDI is not a measure that is valued by the industry. Following discussions with the ORR, we will continue to report PDI data until the end of CP5 for regulatory purposes, recognising that there are fundamental weaknesses in the measure.

Commentary

The Possession Disruption Index - Passenger (PDI-P) measures the level of disruption caused by possessions over a period of time.

Table 7: PDI-F - Network-wide

	BP18						Delivery Plan (mar 2014)						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5 exit	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	CP5 exit
Actual / forecast	0.88	0.85	1.05	1.00		0.73	0.88	1.00	1.04	0.99	0.94	0.73	0.73
Target		1.00					1.00						0.73

Commentary

The Possession Disruption Index - Freight (PDI-F) measures the level of disruption caused by possessions over a period of time.

Asset Management

Table 8: SSM by category

	BP18					Delivery Plan (mar 2014)					
	2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Category A (England & Wales)											
Actual / forecast	2.05	2.07	2.06	2.04	2.10	2.24	2.24	2.24	2.24	2.23	2.23
Target	2.24	2.24	2.24	2.09	2.23	2.48	2.24	2.24	2.24	2.23	2.23
Category B (England & Wales)											
Actual / forecast	2.29	2.28	2.28	2.29	2.32	2.34	2.34	2.33	2.33	2.33	2.32
Target	2.34	2.33	2.33	2.31	2.32	2.60	2.34	2.33	2.33	2.33	2.32
Category C (England & Wales)											
Actual / forecast	2.35	2.35	2.35	2.33	2.38	2.41	2.40	2.40	2.39	2.39	2.38
Target	2.40	2.40	2.39	2.37	2.38	2.65	2.40	2.40	2.39	2.39	2.38
Category D (England & Wales)											
Actual / forecast	2.33	2.34	2.34	2.32	2.38	2.40	2.40	2.39	2.39	2.38	2.38
Target	2.40	2.39	2.39	2.37	2.38	2.69	2.40	2.39	2.39	2.38	2.38
Category E (England & Wales)											
Actual / forecast	2.35	2.35	2.35	2.35	2.39	2.41	2.40	2.40	2.39	2.39	2.39
Target	2.40	2.40	2.39	2.38	2.39	2.74	2.40	2.40	2.39	2.39	2.39
Category F (England & Wales)											
Actual / forecast	2.43	2.43	2.42	2.41	2.46	2.48	2.48	2.47	2.47	2.46	2.46
Target	2.48	2.47	2.47	2.45	2.46	2.71	2.48	2.47	2.47	2.46	2.46
Scotland											
Actual / forecast	2.21	2.20	2.20	2.17	2.23	2.33	2.33	2.33	2.33	2.32	2.32
Target	2.33	2.33	2.33	2.23	2.32	2.39	2.33	2.33	2.33	2.32	2.32

Commentary

The Station Stewardship Measure (SSM) is an average condition score of stations in each of the station categories A to F in England & Wales, and across all stations in Scotland. A lower SSM score indicates a better station condition.

Table 9: AMEM by core group (Network-wide)

	BP18	Delivery Plan (mar 2014)						
		CP5 SBP	End of CP4 Score	2016/17	2017/18	CP5 SBP	2015/16	2017/18
Asset Management Strategy & Planning								
Actual / forecast		65.8%	67.3%	69.6%	74.8%	65.8%	69.6%	72.0%
Target		-	-	-	72.0%			72.0%
Asset management Decision-Making								
Actual / forecast		58.7%	60.4%	67.8%	69.7%	58.7%	67.8%	72.0%
Target		-	-	-	72.0%			72.0%
Lifecycle Delivery Activities								
Actual / forecast		69.2%	71.4%	72.0%	70.8%	69.2%	72.0%	72.0%
Target		-	-	-	72.0%			72.0%
Asset Knowledge Enablers								
Actual / forecast		60.7%	66.9%	69.7%	74.0%	60.7%	69.7%	72.0%
Target		-	-	-	72.0%			72.0%
Organisation & People Enablers								
Actual / forecast		67.3%	69.2%	72.0%	69.5%	67.3%	72.0%	72.0%
Target		-	-	-	72.0%			72.0%
Risk & Review								
Actual / forecast		60.8%	61.8%	68.0%	72.7%	60.8%	68.0%	72.0%
Target		-	-	-	72.0%			72.0%

Commentary

The Asset Management Excellence Model (AMEM) measures an organisation's asset management capability by assessing its maturity in a range of core asset management activities. A score of over 70% is needed to be in the excellent category. The final externally delivered assessments have associated confidence levels with a range of values between 0.7% and 1.7% (+/-).

Table 10: Asset data quality (track) Network-wide

Track	BP18	% of core attributes profiled	Distribution of attributes by numeric grade					
			1	2	3	4	5	6
Plain line	100	5	19	2	1	8	-	-
Switches and crossings	100	3	8	2	1	3	-	-
Signalling	100	2	11	-	-	5	-	-
Interlocking	100	57	-	1	1	-	1	-
Signals	100	8	-	-	-	-	-	-
Train Detection Equipment	100	13	-	-	-	-	-	1
Point Operating Equipment	100	12	-	-	1	-	-	-
Level Crossings	100	13	-	1	-	-	-	-
Structures	100	11	-	-	-	-	-	-
Underline Bridges	100	17	6	-	-	8	2	-
Overline Bridges	100	7	5	-	-	4	1	-
		100	10	1	-	-	4	1

Commentary

Asset Data Quality is assessed using confidence grading of data reliability (the process and governance for producing the data: A, best governance, down to D, poorest governance) and a grading of accuracy and completeness (the best score being 1 and the worst 6). Today we are at A2 for the regulatory data specifications.

The accuracy and completeness element of confidence grading is reported in the above table. It is reported using a number of data checks. Data quality scores in this section represent the percentage of data entries that pass all completeness and validity checks applied. The higher the data quality score, the better the grade.

Asset Data Governance – There is a support improvement programme ongoing which includes asset data governance action plan. This improvements are being undertaken as business as usual to enable Network Rail achieve a grade 'A-governance'

This will enable the organisation committed to:

1. understand gaps and risks that exist against the framework, and have a prioritised plan to address them
2. make decisions based on known and agreed business risk profile
3. act to manage unacceptable levels of business risk

Table 11: ORBIS milestones**BP18**

Milestone	Description	Target date	Progress
Track	National roll-out complete	May 2014	Closed Confirmation received from the ORR this milestone is complete
Linear Asset Decisions Support (LADS) will bring together disparate track data sources to enable NR to target work more efficiently			
Signalling	Data specification complete, including for core data	January 2015	Closed Confirmation received from the ORR this milestone is complete
Signalling Decision Support (SDS) will bring together disparate signalling data sources to enable NR to target work more efficiently	National roll-out complete	September 2015	Closed Confirmation received from the ORR this milestone is complete
Electrification & Plant	Data specification complete, including for core data	April 2015	Closed Confirmation received from the ORR this milestone is complete
Electrification & Plant Decision Support (E&PDS) will bring together disparate E&P data sources to enable NR to target work more efficiently	National roll-out complete	December 2015	Closed Confirmation received from the ORR this milestone is complete
	Data specification complete, including for core data	June 2014	Closed Confirmation received from the ORR this milestone is complete
Structures	Asset hierarchies established and Ellipse designated as master system for Civils	Delayed	CSAMS Deployment to the tunnels community for all routes (release 1) will not be delivered for June 2016. Network Rail is upgrading its core asset management system and delays in this programme have impacted the CSAMS regulated output. Network Rail is putting together a revised Delivery Plan for the output.
Ellipse replaces CARRs (Civils Asset Register & Reporting system) as the master system for Civils Structures			
Geographic and Infrastructure System (GEOGIS) decommissioned	GEOGIS will be replaced by strategic Asset Management Platform systems	Delayed	The ORR Regulated Output in December 2016 was missed due to significant issues with system defect resolutions and data migration preparation. The technical go-live date (INM) of the 22/05/17 was missed due to on-going IT issues with the environment (not related to INM). The 'business go-live' on the 19/06/17 is delayed following the update to National BRIG where a business led decision was made to deploy INM to the business in early September 2017. Deployment activity commenced to ensure September business deployment can be successfully achieved. A report was prepared for the ORR which outlines how the project has been managed and the steps taken to protect the Regulated Output.
Handheld - Fault and incident data capture app roll-out complete	The new app will allow maintenance staff to enter fault data into handheld devices and for this to be electronically transmitted to control centre staff	August 2014	Closed Confirmation received from the ORR this milestone is complete. Minor Enhancement identified by users for Human Readable Code. This is planned for deployment in autumn 2016.

Commentary

The ORBIS Programme (Offering Rail Better Information Services) is a major investment in asset management that is set to change the way in which asset information is collected, stored and utilised.

Indicators

Used for specific monitoring purposes to indicate trends which may raise concern about Network Rail's likely future compliance with a regulated output.

Performance

Table 12: PPM - open-access TOCs

	BP18				
	2014/15	2015/16	2016/17	2017/18	2018/19
First Hull Trains	88.2%	85.3%	81.8%	76.6%	82.3%
Grand Central	88.2%	86.6%	85.0%	83.8%	85.4%
Heathrow Express	92.6%	91.8%	89.8%	90.7%	91.2%

Delivery Plan (mar 2014)

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
81.7%	84.0%	84.0%	84.0%	84.0%	84.0%
80.1%	84.0%	84.0%	84.0%	84.0%	84.0%
93.8%	93.8%	94.9%	95.3%	95.0%	95.0%

Table 13: CaSL - open-access TOCs

	BP18				
	2014/15	2015/16	2016/17	2017/18	2018/19
First Hull Trains	4.8%	5.7%	7.6%	8.0%	6.9%
Grand Central	4.0%	4.5%	5.7%	6.4%	5.3%
Heathrow Express	1.6%	1.9%	1.8%	2.1%	1.7%

Delivery Plan (mar 2014)

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
7.0%	6.7%	6.7%	6.7%	6.7%	6.7%
7.8%	7.5%	7.5%	7.5%	7.5%	7.5%
1.2%	1.3%	1.1%	1.0%	0.9%	0.8%

Table 14: PPM - sector

	BP18				
	2014/15	2015/16	2016/17	2017/18	2018/19
London & South East	89.0%	87.8%	85.2%	86.9%	88.3%
Regional	91.6%	91.4%	91.6%	89.7%	90.8%
Long distance	87.4%	87.6%	87.6%	85.3%	87.2%
Scotland	90.5%	90.6%	90.3%	89.5%	91.5%

Delivery Plan (mar 2014)

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
89.7%	91.0%	91.4%	92.3%	92.4%	92.5%
90.9%	91.6%	92.3%	93.0%	93.1%	93.2%
86.7%	88.3%	89.1%	89.6%	90.0%	90.3%
91.1%	92.0%	92.0%	92.0%	92.0%	92.5%

Table 15: CaSL - sector

	BP18				
	2014/15	2015/16	2016/17	2017/18	2018/19
London & South East	3.1%	3.4%	4.8%	4.2%	3.6%
Regional	2.1%	2.1%	2.2%	2.8%	2.3%
Long distance	4.4%	4.6%	4.8%	5.8%	4.3%

Delivery Plan (mar 2014)

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
3.1%	2.3%	2.2%	2.1%	2.1%	2.1%
2.3%	2.2%	2.0%	2.0%	2.0%	1.9%
5.0%	4.0%	3.8%	3.7%	3.6%	3.4%

Table 16: Delay minutes - delays to franchised and non-franchised operators, England & Wales*

	2018/19	BP18					Delivery Plan (mar 2014)					
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Network Rail-on-TOC		7,223,000	7,722,000	8,399,000	8,273,000	8,117,000	7,610,000	6,740,000	6,450,000	6,150,000	6,050,000	6,070,000
TOC-on-self		3,305,000	3,623,000	3,927,000	4,010,000	3,754,000	3,100,000	3,120,000	3,000,000	2,900,000	2,800,000	2,750,000
TOC-on-TOC		1,536,000	1,442,000	1,401,000	1,528,000	1,427,000	1,505,000	1,420,000	1,400,000	1,350,000	1,350,000	1,300,000
England & Wales		12,065,000	12,787,000	13,727,000	13,812,000	13,297,000	12,210,000	11,290,000	10,850,000	10,400,000	10,200,000	10,120,000

*includes all delay to E&W-funded franchised operators, plus Hull Trains, Grand Central and Heathrow Express

Table 17: Delay minutes - delays to franchised and non-franchised operators, Scotland*

	2018/19	BP18					Delivery Plan (mar 2014)					
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Network Rail-on-TOC		479,497	476,000	497,000	573,000	433,856	442,000	405,000	410,000	400,000	403,000	408,000
TOC-on-self		317,416	334,000	386,000	363,000	323,756	291,000	290,000	294,000	286,000	288,000	292,000
TOC-on-TOC		85,560	85,000	80,000	85,000	72,674	81,000	85,000	86,000	84,000	84,000	85,000
Scotland		882,473	895,000	963,000	1,021,000	830,286	814,000	780,000	790,000	770,000	775,000	785,000

*includes all delay to Scotland-funded franchised operators

Table 18: Delay minutes - delays to franchised and non-franchised operators, Network-wide*

	2018/19	BP18					Delivery Plan (mar 2014)					
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Network Rail-on-TOC		7,703,000	8,198,000	8,896,000	8,846,000	8,551,000	8,050,000	7,150,000	6,850,000	6,550,000	6,450,000	6,500,000
TOC-on-self		3,623,000	3,957,000	4,313,000	4,373,000	4,078,000	3,390,000	3,410,000	3,300,000	3,200,000	3,100,000	3,050,000
TOC-on-TOC		1,622,000	1,527,000	1,481,000	1,614,000	1,499,000	1,590,000	1,510,000	1,500,000	1,425,000	1,400,000	1,400,000
Network-Wide		12,948,000	13,682,000	14,690,000	14,833,000	14,128,000	13,030,000	12,070,000	11,650,000	11,175,000	10,950,000	10,950,000

*includes all delay to franchised operators, plus Hull Trains, Grand Central and Heathrow Express

Table 19: Delay minutes - delays to franchised and non-franchised operators by sector*

	2018/19	BP18					Delivery Plan (mar 2014)					
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
London & South East		3,459,945	3,490,000	4,267,858	3,903,254		3,560,000	3,050,000	2,920,000	2,770,000	2,720,000	2,760,000
Regional		1,810,552	2,073,000	2,049,410	2,224,723		1,880,000	1,770,000	1,690,000	1,610,000	1,590,000	1,570,000
Long distance		1,952,787	2,161,000	2,081,692	2,145,244		2,170,000	1,920,000	1,840,000	1,770,000	1,750,000	1,750,000
Scotland		479,497	476,000	496,907	572,756		442,000	405,000	410,000	400,000	403,000	408,000

*includes all delay to franchised operators, plus Hull Trains, Grand Central and Heathrow Express

Table 20: Delay minutes - delays to franchised and non-franchised operators by route*

	BP18					Delivery Plan (mar 2014)					
	2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Anglia	639,810	635,000	716,266	702,660	866,587	600,000	550,000	535,000	530,000	520,000	620,000
London North Eastern & EM	1,349,270	1,384,000	1,434,656	1,273,845	1,633,946	1,590,000	1,545,000	1,510,000	1,490,000	1,460,000	1,400,000
London North Western	1,727,185	1,847,000	1,683,298	1,903,788	1,970,000	1,815,000	1,680,000	1,630,000	1,590,000	1,560,000	1,550,000
Scotland	517,013	517,000	530,109	644,089	524,934	460,000	425,000	440,000	425,000	430,000	435,000
South East	1,669,035	1,962,000	2,428,874	2,012,127	2,051,841	1,545,000	1,325,000	1,275,000	1,185,000	1,190,000	1,170,000
Wales	277,633	353,000	343,575	341,780	435,387	300,000	280,000	270,000	260,000	260,000	250,000
Wessex	782,550	773,000	961,325	1,113,277	1,148,226	850,000	680,000	630,000	590,000	560,000	530,000
Western	776,812	775,000	848,004	895,647	991,052	910,000	740,000	670,000	640,000	660,000	720,000
Network-wide	7,739,308	8,246,000	8,946,106	8,887,213	9,621,973	8,070,000	7,225,000	6,960,000	6,710,000	6,640,000	6,675,000

*includes all Network Rail caused delay to passenger operators including minor operators such as NEXUS, NYMR and London Underground

Table 21: Network Rail caused delay minutes -

TOCs	BP18					Delivery Plan (mar 2014)					
	2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Franchised operators											
Abellio Greater Anglia	454,363	438,000	488,769	458,900	470,884	436,000	440,000	420,000	414,000	405,000	507,000
Arriva Trains Wales	290,525	345,000	335,872	329,179	362,835	329,000	300,000	288,000	277,000	275,000	266,000
c2c	32,786	29,000	55,970	31,527	28,872	36,000	28,000	32,000	32,000	30,000	30,000
Caledonian Sleeper		15,000	12,714	20,244	14,000						
Chiltern Railways	80,940	103,000	142,634	126,535	128,957	86,000	89,000	96,000	95,000	94,000	94,000
CrossCountry	415,127	436,000	434,779	442,323	422,391	531,000	468,000	420,000	394,000	394,000	394,000
Virgin Trains East Coast	179,886	223,000	238,833	222,627	218,272	247,000	241,000	236,000	231,000	226,000	222,000
East Midlands Trains	261,749	254,000	283,825	270,523	261,385	296,000	261,000	256,000	250,000	245,000	241,000
Govia Thameslink Railway	1,335,003	1,487,000	1,748,686	1,481,081	1,542,000	1,220,000	1,035,000	990,000	896,000	883,000	868,000
First Great Western	738,763	724,000	805,348	848,105	856,000	844,000	683,000	603,000	575,000	599,000	657,000
First ScotRail	479,494	461,000	484,192	552,512	419,856	442,000	405,000	410,000	400,000	403,000	408,000
First TransPennine Express	318,583	339,000	245,744	282,157	239,007	276,000	254,000	249,000	244,000	239,000	235,000
London Midland/ West Midland	428,944	428,000	390,179	440,492	387,473	515,000	472,000	434,000	385,000	373,000	364,000
London Overground	127,022	141,000	149,425	159,685	164,824	79,000	79,000	78,000	77,000	76,000	76,000
Merseyrail	60,614	66,000	65,020	68,292	60,987	51,000	48,000	49,000	47,000	46,000	45,000
Northern	725,904	811,000	767,378	890,431	841,963	793,000	759,000	744,000	729,000	715,000	700,000
South West Trains	631,326	639,000	838,323	961,204	978,132	677,000	556,000	521,000	486,000	451,000	416,000
Southeastern	592,079	706,000	919,442	732,961	635,230	627,000	533,000	533,000	533,000	540,000	520,000
Virgin Trains West Coast	439,011	448,000	365,094	416,485	361,247	448,000	420,000	443,000	420,000	405,000	389,000
Crossrail	42,812	35,000	37,067	37,121	77,374						
Open Access Operators											
First Hull Trains	15,270	16,000	19,661	16,612	18,036	22,000	21,000	20,000	20,000	20,000	19,000
Grand Central	27,017	30,000	31,487	27,331	31,091	35,000	33,000	32,000	32,000	31,000	31,000
Heathrow Express	25,556	28,000	35,424	29,385	29,862	24,000	23,000	19,000	18,000	20,000	20,000

Table 22: Freight delay minutes per 100 train

kilometers - Network-wide

	BP18					Delivery Plan (mar 2014)					
	2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Actual / forecast	3.34	3.50	3.58	3.62	3.60	3.61	3.21	3.12	3.07	3.00	2.94

Commentary

During CP4 DM/100Km was the regulatory measure for Freight and whilst no longer regulatory we are continuing to measure it as a supporting and consistent metric during CP5. This forecast is based on the current relationship between freight delay minutes per 100 train kilometres and the Freight Delivery Metric (FDM), and supports achievement of FDM.

Asset Management

Table 23: Light Maintenance Depot Stewardship Measure (LMDSM) - England & Wales, Scotland and Network-wide

	BP18	Delivery Plan (mar 2014)					
		2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
England & Wales							
Actual / forecast	2.34	2.36	2.36	2.34	2.36	2.38	2.40
Scotland							
Actual / forecast	2.12	2.07	2.05	1.98	2.12	2.42	2.43
Network-wide							
Actual / forecast	2.31	2.32	2.32	2.28	2.37	2.39	2.41
						2.40	2.39
						2.38	2.37
						2.36	

Table 24: GB asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)					BP18 vs DP (Positive is good)					
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	2.79	2.33	1.99	1.88	2.97	4.10	4.17	4.13	4.09	4.05	3.99	1.38	1.80	2.10	2.17	1.03
	Track geometry (Poor Track Geometry)	2.12%	2.00%	2.06%	2.06%	2.25%	2.34%	2.32%	2.31%	2.30%	2.26%	2.25%	0.20%	0.31%	0.24%	0.20%	-
	Track failures (service affecting)	5,507	5,286	5,101	5,140	4,973	5,913	5,335	5,245	5,149	5,064	4,971	(172)	(41)	48	(76)	(2)
Signalling	Signalling failures (service affecting)	16,260	15,726	15,259	14,463	14,898	16,833	16,434	16,261	16,070	15,916	15,753	174	535	811	1,453	855
Telecoms	Telecoms failures (service affecting)	4,063	3,260	2,769	2,262	2,770	2,352	2,009	1,589	1,387	1,280	1,240	(2,054)	(1,671)	(1,382)	(982)	(1,531)
Electrical Power	AC traction power failures (service affecting)	859	767	758	840	859	929	1,051	1,087	1,149	1,217	1,263	192	320	391	377	404
	DC traction power failures (service affecting)	286	295	290	341	279	327	330	328	312	304	299	44	33	22	(37)	20
	Non traction operational power supply failures (service affecting)	263	238	273	279	284	500	560	576	558	535	514	297	338	285	256	230
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	5,835	4,504	4,837	5,147	5,033	6,992	6,914	6,757	6,679	6,813	6,997	1,079	2,253	1,842	1,666	1,964
Structures	Number of open faults with a risk score ≥12	1,834	1,230	1,092	838	1,353	4,377	2,726	2,510	2,168	1,713	1,366	892	1,280	1,076	875	13
Earthworks	Earthwork failures	101	124	134	110	102	109	105	101	98	94	90	4	(22)	(37)	(16)	(12)
Points	Points failures (service affecting)	4,008	3,574	3,455	3,547	3,332	4,389	4,390	4,349	4,304	4,268	4,247	382	775	849	721	915

Table 25: GB asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)					BP18 vs DP (Positive is good)					
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	51.5%	51.3%	51.5%	52.1%	50.7%	49.4%	49.2%	49.2%	49.4%	49.6%	50.2%	-2.3%	-2.1%	-2.1%	-2.5%	-0.5%
	Track - Used Life - Switch & Crossings	51.5%	50.7%	49.8%	49.7%	48.3%	52.7%	52.3%	51.5%	50.3%	49.7%	49.7%	0.8%	0.8%	0.5%	0.0%	1.4%
	Track - Used Life - Sleepers	62.5%	62.7%	63.0%	64.0%	62.5%	60.9%	61.1%	60.9%	61.4%	61.5%	62.3%	-1.4%	-1.8%	-1.6%	-2.5%	-0.1%
	Track - Used Life - Ballast	49.5%	49.2%	49.5%	50.3%	49.2%	47.7%	47.7%	47.8%	48.0%	48.1%	48.7%	-1.8%	-1.4%	-1.5%	-2.2%	-0.5%
Signalling	Signalling Condition Index (SICA Remaining Life)	12.60	14.87	15.50	14.60	13.80	12.54	12.68	13.33	13.74	13.89	14.02	(0.08)	1.54	1.76	0.71	(0.22)
Telecoms	Telecoms - Remaining Life	63.8%	58.6%	51.2%	50.1%	50.8%	65.2%	62.0%	57.3%	54.8%	52.6%	53.2%	1.8%	1.3%	-3.6%	-2.5%	-2.4%
Electrical Power	EP - Remaining Life - Conductor Rail	67.6%	66.4%	67.2%	66.8%	66.1%	67.1%	65.8%	65.1%	64.9%	64.4%	63.9%	1.8%	1.3%	2.3%	2.4%	2.2%
	EP - Remaining Life - Overhead Line Equipment (OLE)	58.0%	57.2%	58.0%	59.0%	54.9%	59.4%	58.4%	57.7%	55.6%	55.2%	55.3%	-0.4%	-0.5%	2.4%	3.8%	-0.4%
	EP - Remaining Life - Signalling Power Cable												16.4%	17.6%	18.2%	19.5%	20.7%
Buildings	Stations - %age Remaining Life	55.4%	54.9%	54.7%	55.2%	55.5%	39.0%	39.0%	37.3%	36.5%	35.7%	34.8%	7.5%	8.1%	9.2%	12.4%	4.8%
	Light Maintenance Depot (LMD) - %age Remaining Life	52.2%	52.2%	52.6%	55.1%	46.8%	45.4%	44.7%	44.1%	43.4%	42.7%	42.0%	(0.0)	(0.1)	(0.1)	(0.0)	0.2
Structures	Structures - PLBE Condition Banding	64.7	64.7	64.7	64.8	65.1	64.6	64.7	64.8	64.8	64.8	64.9	4.9	2.6	2.8	1.4	5.5
	Tunnel Condition Monitoring Index (TCMI)	88.3	86.3	86.8	85.7	90.1	83.1	83.4	83.7	84.0	84.3	84.6	(0.01)	(0.00)	(0.00)	(0.00)	(0.06)
Earthworks	Earthworks - Condition Banding	1.76	1.75	1.75	1.75	1.80	1.75	1.75	1.75	1.75	1.75	1.74	0.22	0.24	0.19	0.21	0.08
Drainage	Track Drainage - Condition Banding	1.48	1.49	1.54	1.51	1.62	1.69	1.70	1.73	1.73	1.72	1.70	0.22	0.21	0.12	0.12	0.05
	Earthwork/Structure Drainage - Condition Banding	1.49	1.51	1.61	1.60	1.68	1.70	1.71	1.72	1.73	1.72	1.73					

Table 26: GB track renewal volumes total

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line													
Conventional													
Steel Relay	Track km	29	38	31	28	26	151	23	14	16	4	13	69
Complete Renewal	Track km	140	152	138	87	80	597	186	180	165	148	144	824
Complete (formation)	Track km	22	35	38	37	33	164	43	37	38	33	20	171
Rail Renewal	Track km	277	350	273	239	211	1,350	316	239	265	250	237	1,307
Single Rail	Track km	52	62	55	62	39	269	39	33	43	39	16	171
High Output													
Automated Ballast Cleaning (ABC)	Track km		2				2	134	183	213	200	126	856
Rail Sleeper Relay	Track km	145	121	111	36	19	433	157	190	220	120		687
Heavy Refurbishment	Track km	232	229	164	65	75	765	103	155	237	251	232	977
Refurbishment													
Heavy Refurbishment	Track km	80	48	47	28	18	222	65	88	72	65	58	349
Medium (concrete)	Track km	107	226	193	138	138	803	178	211	181	187	208	964
Medium (other)	Track km	139	170	132	162	99	703	160	146	207	196	147	856
Switches & Crossings													
S&C delivered													
Abandonment	Point Ends	39	88	96	38	119	380	106	92	98	50	41	387
Full Renewal	Point Ends	231	232	198	182	202	1,045	323	318	346	229	229	1,445
Refurbishment													
Heavy	Point Ends	170	244	241	155	240	1,049	265	337	444	435	316	1,797
Medium	Point Ends	260	466	489	336	193	1,743	401	429	479	408	368	2,085
Off Track													
Fencing	m	797	977	691	465	430	3,361	808	960	904	888	954	4,514
Slab track	Track km	0	2	1	1	1	3	0	0	0	1		1
												(0)	(0)
												2	1

Table 27: GB track renewal volumes (route criticality 1)

	BP18	Delivery Plan (mar 2014)					BP18 vs DP					
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line												
Conventional												
Steel Relay	Track km		2	0	0	0		0	1	1		
Complete Renewal	Track km	23	20	23	13	13	92	46	26	32	29	35
Complete (formation)	Track km	7	8	8	10	7	40	16	12	14	9	5
Rail Renewal	Track km	17	73	59	38	51	238	62	38	52	90	77
Single Rail	Track km	12	19	14	17	10	72	5	18	11	11	1
High Output												
Automated Ballast Cleaning (ABC)	Track km		2				2	63	122	144	72	115
Rail Sleeper Relay	Track km	56	44	19	3	3	124	100	140	21	79	340
Heavy Refurbishment	Track km	61	71	51	3	9	194	14	18	11	5	2
Refurbishment								21	21	8	14	9
Heavy Refurbishment	Track km	5	10	7	4	7	34	2	6	11	7	4
Medium (concrete)	Track km	1	11	8	3	1	23	2	1			
Medium (other)	Track km	7	1	0	1	0	10					
Switches & Crossings								21	21	8	14	9
S&C delivered								74				
Abandonment	Point Ends	4	8	8	8	22	49	14	10	14	13	8
Full Renewal	Point Ends	19	52	40	28	48	187	99	65	68	79	52
Refurbishment								59				
Heavy	Point Ends	7	23	19	16	24	89	32	27	39	52	40
Medium	Point Ends	40	35	49	33	15	171	40	66	43	32	37
Off Track								190				
Slab track	Track km			0	1	1		1				
								218				
									1	1		
											(0)	1
												0

Table 28: GB track renewal volumes (route criticality 2)

	BP18	Delivery Plan (mar 2014)						BP18 vs DP											
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	44	39	31	19	20	154	44	63	50	42	35	234	0	(24)	(19)	(22)	(15)	(80)
Complete (formation)	Track km	7	8	12	9	9	45	14	15	8	3	6	45	(7)	(6)	4	7	3	1
Rail Renewal	Track km	139	80	59	57	47	381	85	64	40	48	39	276	54	15	19	9	8	106
Single Rail	Track km	20	9	11	14	6	60	11	8	15	13	4	52	9	1	(4)	0	2	9
High Output																			
Automated Ballast Cleaning (ABC)	Track km						0	66	42	68	102	10	289	(66)	(42)	(68)	(102)	(10)	(288)
Rail Sleeper Relay	Track km	37	33	63	15	15	164	57	3	153			213	(20)	30	(89)	15	15	(49)
Heavy Refurbishment	Track km	83	109	50	51	35	327	2	44	63	26	55	191	81	64	(14)	24	(20)	137
Refurbishment																			
Heavy Refurbishment	Track km	11	3	3	3	3	23	8	6	18	4	1	37	4	(3)	(15)	(1)	1	(14)
Medium (concrete)	Track km	39	29	29	18	22	137	29	15	17	15	20	95	10	14	12	4	2	43
Medium (other)	Track km	45	4	8	5	3	65	3	3	3	4	6	20	42	1	5	1	(4)	45
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	5	17	5	6	23	56	9	17	27	8	14	75	(4)	0	(22)	(2)	9	(19)
Full Renewal	Point Ends	102	81	45	41	86	355	112	120	168	78	106	584	(10)	(39)	(123)	(37)	(20)	(229)
Refurbishment																			
Heavy	Point Ends	68	59	52	33	53	265	60	52	72	83	34	301	8	8	(20)	(50)	19	(36)
Medium	Point Ends	90	113	109	73	45	431	91	72	102	70	66	401	(1)	41	7	3	(21)	30
Off Track																			
Slab track	Track km						0						0	(0)	0	0	0	(0)	

Table 29: GB track renewal volumes (route criticality 3)

		BP18					Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km	6	4	3	5	9	27		1		1	1	3		6	3	3	4	8	24
Complete Renewal	Track km	38	52	38	25	18	172	73	58	45	46	47	269	(35)	(6)	(7)	(20)	(28)	(97)	
Complete (formation)	Track km	6	13	11	13	12	55	11	8	12	17	2	51	(6)	5	(2)	(4)	10	4	
Rail Renewal	Track km	50	86	64	58	46	305	51	53	97	47	77	324	(1)	33	(32)	11	(31)	(19)	
Single Rail	Track km	15	22	17	18	13	85	13	4	9	4	2	33	2	17	8	14	12	52	
High Output																				
Automated Ballast Cleaning (ABC)	Track km		0				0	5	2		25	1	33	(5)	(2)		(25)	(1)	(33)	
Rail Sleeper Relay	Track km	44	39	13	15	1	112		25	18	41		83	44	14	(5)	(26)	1	28	
Heavy Refurbishment	Track km	26	47	47	12	10	142	34	38	62	84	76	295	(8)	9	(15)	(73)	(66)	(153)	
Refurbishment																				
Heavy Refurbishment	Track km	38	12	22	8	4	84	11	34	11	13	13	82	27	(22)	11	(5)	(9)	2	
Medium (concrete)	Track km	19	42	35	30	28	154	52	20	32	55	43	202	(33)	22	2	(24)	(15)	(48)	
Medium (other)	Track km	46	42	24	34	24	170	51	48	53	29	13	194	(5)	(5)	(29)	5	11	(24)	
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	7	29	64	8	32	140	46	16	18	7	4	90	(39)	14	46	1	28	50	
Full Renewal	Point Ends	82	68	84	77	57	369	71	102	61	52	62	348	11	(34)	23	26	(4)	21	
Refurbishment																				
Heavy	Point Ends	54	87	87	51	95	375	88	112	160	128	158	646	(34)	(25)	(73)	(77)	(62)	(271)	
Medium	Point Ends	82	148	133	93	57	513	165	128	131	108	151	683	(83)	20	2	(15)	(94)	(170)	
Off Track																				
Slab track	Track km		0	2		2		0	0	0			0	(0)	(0)	2			1	

Table 30: GB track renewal volumes (route criticality 4)

		BP18					Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km	4	10	9	3	1	27	1	2	1	3	3	9	3	8	8	1	(2)	18	
Complete Renewal	Track km	24	30	38	21	17	131	16	12	20	8	13	69	8	18	18	14	4	62	
Complete (formation)	Track km	2	6	8	5	3	23	2	2	2	5	6	16	(0)	4	6	0	(2)	8	
Rail Renewal	Track km	49	66	49	50	39	253	55	57	44	34	26	216	(6)	9	6	16	12	37	
Single Rail	Track km	2	9	9	9	6	35	7	1	5	8	5	26	(5)	8	4	1	1	9	
High Output																				
Automated Ballast Cleaning (ABC)	Track km							17					17							(17)
Rail Sleeper Relay	Track km	8	5	10			23		22	26			49	8	(18)	(16)				(25)
Heavy Refurbishment	Track km	61	3	17	0	18	99	51	47	80	130	97	404	11	(44)	(63)	(130)	(79)	(305)	
Refurbishment																				
Heavy Refurbishment	Track km	18	12	9	8	1	48	14	15	18	28	13	88	4	(3)	(10)	(20)	(12)	(40)	
Medium (concrete)	Track km	29	87	72	48	54	289	51	122	52	49	97	371	(23)	(35)	20	(1)	(43)	(82)	
Medium (other)	Track km	19	48	44	49	30	190	37	36	91	63	37	264	(18)	12	(46)	(14)	(7)	(74)	
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	10	18	14	10	15	66	17	32	14	10	7	79	(7)	(14)	(0)	0	8	(13)	
Full Renewal	Point Ends	16	12	28	30	7	95	34	25	26	18	7	110	(18)	(13)	3	12	1	(15)	
Refurbishment																				
Heavy	Point Ends	34	53	57	34	38	216	58	108	131	53	47	397	(24)	(55)	(74)	(19)	(9)	(181)	
Medium	Point Ends	28	94	107	73	44	346	55	108	123	87	66	439	(27)	(14)	(16)	(14)	(22)	(94)	
Off Track																				
Slab track	Track km	0	0			0			0				0			(0)	0		(0)	

Table 31: GB track renewal volumes (route criticality 5)

		BP18					Delivery Plan (mar 2014)					BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	19	22	18	18	16	93	22	11	15		8	55	(3)	11	4	18	8	38
Complete Renewal	Track km	10	11	8	8	12	49	7	20	17	24	15	83	3	(9)	(10)	(16)	(3)	(35)
Complete (formation)	Track km		0	0		1	1	0		2		1	3	(0)	0	(2)	(0)	(0)	(2)
Rail Renewal	Track km	22	45	41	36	29	172	64	27	32	31	18	172	(41)	18	8	5	10	0
Single Rail	Track km	2	4	4	4	3	17	3	2	3	2	4	15	(1)	2	1	2	(1)	3
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km			6	3		9			2			2			4	3		7
Heavy Refurbishment	Track km					3	3	1	7	21	6	3	38	(1)	(7)	(21)	(6)	1	(35)
Refurbishment																			
Heavy Refurbishment	Track km	8	10	7	6	3	34	12	11	16	8	21	68	(4)	(0)	(10)	(2)	(18)	(34)
Medium (concrete)	Track km	19	58	50	39	33	199	44	48	69	62	44	267	(26)	10	(19)	(23)	(10)	(68)
Medium (other)	Track km	21	75	55	74	42	267	69	57	60	100	90	375	(47)	19	(5)	(26)	(48)	(108)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	13	16	5	7	27	69	20	18	25	13	8	84	(7)	(2)	(20)	(5)	19	(15)
Full Renewal	Point Ends	11	18	1	6	3	40	6	6	23	2	3	40	5	12	(22)	4	0	0
Refurbishment																			
Heavy	Point Ends	7	22	25	21	28	103	27	38	42	119	37	263	(20)	(16)	(17)	(98)	(9)	(160)
Medium	Point Ends	20	76	91	64	32	283	50	55	80	111	47	344	(30)	21	11	(47)	(16)	(61)
Off Track																			
Slab track	Track km																		

Table 32: GB buildings and civils volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Structures																			
Underbridges	m ²	64,484	117,133	116,177	74,287	54,776	426,857	121,031	143,479	158,339	139,675	125,297	687,821	(56,547)	(26,346)	(42,162)	(65,387)	(70,521)	(260,965)
Overbridges (incl BG3)	m ²	9,773	13,475	12,918	12,837	11,179	60,182	25,317	34,062	15,637	11,580	10,419	97,015	(15,544)	(20,587)	(2,719)	1,257	760	(36,834)
Tunnels	m ²	17,433	30,412	19,573	12,250	21,750	101,418	28,719	75,033	34,750	38,967	32,098	209,567	(11,286)	(44,621)	(15,177)	(26,718)	(10,348)	(108,149)
Culverts	m ²	4,765	5,151	4,174	2,385	2,625	19,100	2,099	3,459	3,785	3,422	2,925	15,689	2,666	1,693	390	(1,037)	(301)	3,411
Footbridges	m ²	968	2,121	2,748	2,028	4,188	12,053	2,007	2,681	3,488	3,998	2,225	14,400	(1,040)	(560)	(740)	(1,970)	1,963	(2,347)
Coastal & Estuary Defences	m	7,329	4,159	2,763	5,857	2,659	22,767	2,070	4,512	2,948	5,418	2,000	16,948	5,259	(353)	(185)	439	659	5,819
Retaining Walls	m ²	3,425	7,985	14,721	2,385	4,673	33,189	4,046	6,001	8,470	4,919	7,149	30,585	(621)	1,984	6,251	(2,534)	(2,476)	2,604
Earthworks	5-chain	2,304	3,992	3,390	5,288	1,963	16,937	3,178	3,108	3,052	3,548	3,193	16,077	(874)	885	338	1,740	(1,230)	859
Track Drainage																			
Renewal	lm	5,829	13,385	20,705	11,011	17,067	67,998	7,343	6,453	6,363	6,199	6,158	32,516	(1,514)	6,932	14,342	4,812	10,909	35,481
Refurbishment	lm	15,605	98,994	82,911	112,449	68,078	378,037	32,509	32,613	32,525	32,550	32,601	162,797	(16,903)	66,381	50,386	79,899	35,477	215,240
New Build	lm	2,467	2,599	4,509	5,285	9,657	24,516	811	799	798	790	789	3,986	1,656	1,800	3,712	4,495	8,867	20,530
EW Drainage																			
Renewal	lm	1,576	7,905	1,780	684	649	12,594	7,574	7,574	6,967	6,391	5,158	33,663	(5,998)	331	(5,187)	(5,707)	(4,509)	(21,070)
Refurbishment	lm	1,227	1,196	17,351	8,107	6,942	34,823	1,610	1,599	1,451	2,780	2,244	9,684	(383)	(403)	15,901	5,326	4,698	25,139
Maintenance	lm	3,032	20,496	7,392	2,608	29,976	63,503	24,066	25,383	22,573	25,630	23,568	121,219	(21,034)	(4,887)	(15,181)	(23,022)	6,408	(57,716)
New Build	lm	7,107	5,806	7,125	3,247	182	23,467	5,302	5,227	5,227	5,367	5,512	26,635	1,805	579	1,898	(2,120)	(5,330)	(3,168)
Franchised Stations																			
Footbridges	m ²	1,326	5,533	2,054	1,868	1,810	12,591	5,244	5,794	4,727	3,530	2,058	21,353	(3,918)	(261)	(2,673)	(1,662)	(248)	(8,762)
Train Sheds	m ²	8,213	16,600	1,500	10,837	13,188	50,338	24,253	7,980	2,300	1,932		36,465	(16,040)	8,620	(800)	8,905	13,188	13,873
Canopies	m ²	51,140	18,722	35,600	2,381	35,231	143,074	26,649	19,752	19,948	8,807	12,650	87,806	24,491	(1,031)	15,652	(6,426)	22,581	55,268
Platforms	m ²	54,481	29,451	32,825	7,889	5,810	130,456	79,937	70,629	63,936	37,541	20,422	272,465	(25,456)	(41,178)	(31,111)	(29,652)	(14,612)	(142,009)
Buildings	m ²	22,575	8,968	13,473	9,578	7,489	62,084	6,669	3,863	3,492	7,615	1,947	23,586	15,906	5,105	9,981	1,963	5,542	38,498
Lifts & Escalators	No.	4	14				18	76	73	82	77	69	377	(72)	(59)	(82)	(77)	(69)	(359)
Managed Stations														120		175	295		
Footbridges	m ²		120				175							(1,600)	2,184	9,741	(36,342)	(43,398)	(69,415)
Train Sheds	m ²		2,184	11,321	2,826	2,320	18,651	1,600		1,580	39,168	45,718	88,066	(5,665)	(666)	(4,978)	(624)	(1,325)	(13,258)
Canopies	m ²		265	527	1,581		2,373	5,930	1,193	6,559	624	1,325	15,631	(2,383)	(700)	(210)	(8,560)	(4,837)	(16,690)
Platforms	m ²		217	100			2,685	5,874	5,815	2,049	21,444	3,071	38,253	838	(3,114)	6,165	(20,590)	(48)	(16,749)
Buildings	m ²		6,712	2,701	8,214	854	3,023	21,504	11	7	8	7	13	46	(8)	(6)	(8)	(7)	(42)
Light Maintenance Depots																			
Buildings	m ²	243	9,245	20,906	6,260	7,130	43,784	67,000	6,946	3,001	2,128	451	79,526	(66,757)	2,299	17,905	4,132	6,679	(35,742)
Depot Shed	m ²	40,883	17,809	15,508	3,573	93	77,866	31,021	4,450				35,471	9,862	13,359	15,508	3,573	93	42,395
Lineside Buildings																			
Buildings	m ²	5,356	8,184	6,586	8,652	3,030	31,808	18,969	3,292	2,857	2,684	2,684	30,486	(13,613)	4,892	3,729	5,968	346	1,322
MDU																			
Buildings	m ²	11,147	4,920	6,350	18,523	25,177	66,117	22,216	8,257	8,244	7,910	56	46,683	(11,069)	(3,337)	(1,894)	10,613	25,121	19,434

Table 33: GB signalling renewal volumes

	SEUs	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Full Conventional Resignalling	SEUs	520	993	584	207	1,462	3,766	1,061	1,231	732	1,617	93	4,735	(541)	(238)	(148)	(1,410)	1,369	(968)	
ERTMS Resignalling	SEUs							2		115	146	868	1,131			(2)	(115)	(146)	(868)	(1,131)
Partial Conventional Resignalling	SEUs	169	414	379	151	715	1,829	609	917	860	419	432	3,237	(441)	(503)	(481)	(268)	284	(1,408)	
Targeted Component Renewal	SEUs	7	42	27	13	11	100	145	87	104	92	149	578	(139)	(45)	(77)	(79)	(138)	(478)	
Modular Resignalling	SEUs							70	365	437	224	203	1,298		(70)	(346)	(399)	(129)	(203)	(1,146)
Level Crossing Renewals	No.	35	45	20	14	39	153	62	106	117	94	57	436		(27)	(61)	(97)	(80)	(18)	(283)

Table 34: GB elec'n and plant renewal vols

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Contact Systems																			
Overhead Line Equipment (OLE) Re-wiring	wire runs	58	54	63	48	55	278	37	49	80	55	39	260	21	5	(17)	(7)	16	18
Mid-life Refurbishment	wire runs			5			5	56	67	67	52	40	282	(56)	(67)	(62)	(52)	(40)	(277)
Structure Renewals	No.	81	115	187	232	273	888	113	157	201	65	99	636	(32)	(42)	(14)	167	174	252
Conductor rail																			
Renewals	km	26	41	31	17	19	134	35	26	31	23	15	129	(9)	15	(0)	(5)	5	5
AC distribution																			
HV Switchgear Renewal	No.	21	6		62	89		16	8	9	5		38	5	(2)	(9)	(5)	62	51
Booster Transformers	No.							21	22	8	8	6	65	(21)	(22)	(8)	(8)	(6)	(65)
DC distribution																			
HV Switchgear Renewal	No.	2	3	14	21	10	50	2	36	3	9	3	53		(33)	11	12	7	(3)
HV Cables	km	6	20	12	2	3	44	40	20	18	26	21	125	(34)	(1)	(6)	(24)	(17)	(81)
LV Switchgear Renewal	No.	65	48	37	1		151	78	72	43	44	9	245	(13)	(24)	(6)	(43)	(9)	(94)
LV Cables	km	22	37	33	38	19	149	19	16	21	18	20	94	3	20	12	20	(1)	55
Transformer Rectifiers	No.	8	2		1		11	2	2	5			9	6	(5)	1		2	
Fixed plant																			
Signalling Power Cable Renewal	km	22	69	53	216	206	565	273	256	193	154	123	999	(251)	(188)	(140)	61	82	(434)
Principle Supply Point Renewal	No.	22	104	14	10	10	160	20	16	2	3	1	43	2	88	12	7	9	117
Rail Heating																			
Points Heating Renewal	Point End	71	151	76	128	55	481	334	151	122	97	92	796	(263)		(46)	31	(37)	(315)

Table 35: GB telecoms renewal volumes

		BP18					Delivery Plan (mar 2014)					BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Station Information and Surveillance Systems																			
Customer Information Systems	No.	112	20	22	189	622	965	188	749	953	505	170	2,565	(76)	(729)	(931)	(316)	452	(1,600)
Public Address	No.	807	294	88	1,309	3,999	6,497	2,385	4,060	4,471	1,839	1,061	13,816	(1,578)	(3,766)	(4,383)	(530)	2,938	(7,319)
CCTV	No.	205	151	339	497	389	1,581	273	2,426	2,132	526	268	5,625	(68)	(2,275)	(1,793)	(29)	121	(4,044)
Clocks	No.		8	8	6	10	32	57	27	105	38	14	241	(57)	(19)	(97)	(32)	(4)	(209)
Operational Comms																			
PABX Concentrator	No. of Lines		1,088	6,116	4,269	631	12,104	1,929	1,079	137	725	766	4,635	(1,929)	9	5,979	3,544	(135)	7,469
Processor Controlled Concentrator	No. of Lines		21		14		35	142	206	103		49	500	(121)	(206)	(89)	(49)	(465)	
Driver-Only Operation: CCTV	No.	9	43	36	17	2	107	67	11	41	109	38	266	(58)	32	(5)	(92)	(36)	(160)
Driver-Only Operation: Mirrors	No.					5	36	26	90	3	16		135	(26)	(59)	(3)	(16)	5	(99)
Public Emergency Telephone System	No.	22	13	11	8		53	1	3	34	26	11	75	21	10	(23)	(18)	(11)	(22)
Human Machine Interface Large	No.		11	60	30		101	5	12	10	5	6	38	(5)	(1)	50	25	(6)	63
Human Machine Interface Small	No.					5	5	1					1	(1)		5		4	
Radio System	No.				76			3					3	(3)	76			73	
Power Systems	No.		7	46	49	8	110						150	7	43	(87)	3	(6)	(40)

Table 36: GB maintenance volumes

	Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5		
Track	Plain Line Tamping (km)	Km	MNT004	7,570	5,283	8,934	6,323	5,229	33,338	6,623	6,559	6,393	6,337	6,358	32,270	948	(1,276)	2,541	(14)	(1,130)	1,068
	Plain Line Stoneblowing (km)	Km	MNT005	2,414	2,766	2,442	1,682	2,418	11,722	3,485	3,459	3,380	3,392	3,372	17,087	(1,070)	(693)	(938)	(1,709)	(954)	(5,366)
	Manual Wet Bed Removal	Bay	MNT006	24,447	22,697	22,321	20,053	18,421	107,939	19,316	19,165	18,642	18,013	17,372	92,509	5,131	3,532	3,680	2,040	1,049	15,431
	Mechanical Wet Bed Removal	Bay	MNT012	12,129	12,132	10,153	9,543	10,847	54,804	10,458	10,371	10,281	9,654	9,135	49,899	1,671	1,761	(128)	(111)	1,712	4,905
	S&C Tamping	Point End	MNT007	3,477	2,616	2,864	2,398	3,120	14,477	4,546	4,461	4,426	4,356	4,367	22,157	(1,069)	(1,844)	(1,562)	(1,957)	(1,247)	(7,680)
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	17,273	19,738	24,310	20,569	20,962	102,852	15,940	15,797	15,658	15,043	14,765	77,202	1,333	3,941	8,652	5,526	6,197	25,650
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	102,620	104,364	124,467	101,579	101,998	535,028	90,381	85,946	81,839	81,046	80,319	419,530	12,239	18,418	42,628	20,533	21,680	115,497
	Mechanical Reprofiling of Ballast	Mile	MNT017	4,352	6,088	3,638	11,539	1,973	27,590	2,903	2,759	2,704	2,682	2,685	13,733	1,449	3,329	934	8,858	(712)	13,858
	Manual Reprofiling of Ballast	Rail Yards	MNT020	2,240,586	2,315,950	2,340,529	2,249,455	1,611,401	107,57,921	1,668,566	1,589,434	1,545,546	1,530,761	1,470,261	7,804,567	572,020	726,516	794,983	718,694	141,140	2,953,354
	Replacement of Pads & Insulators	Sleeper	MNT029	463,750	924,252	1,052,736	910,335	526,979	3,878,052	467,838	451,500	437,995	426,000	416,158	2,199,490	(4,088)	472,752	614,741	484,335	110,821	1,678,562
Off track	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	1,819,758	1,426,762	1,661,306	1,520,749	1,390,737	7,819,312	1,163,289	1,131,622	1,078,811	1,033,237	1,019,309	5,426,268	656,469	295,140	582,495	487,512	371,428	2,393,044
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	521,952	490,108	537,058	546,811	474,318	2,570,247	258,893	246,466	229,945	211,624	209,254	1,156,183	263,059	243,642	307,113	335,186	265,063	1,414,064
	S&C Renew Crossing	Crossing	MNT120	650	851	740	665	692	3,598	682	673	652	653	646	3,306	(32)	178	88	12	46	292
	S&C Maintenance	Point End	MNT122	428,111	414,974	492,055	433,800	380,628	2,149,568	434,251	432,957	432,452	431,809	431,606	2,163,075	(6,140)	(17,983)	59,603	1,991	(50,978)	(13,506)
	S&C Renew Half Set of Switches	H/S Switch	MNT123	632	752	748	733	773	3,638	782	774	763	758	755	3,833	(150)	(22)	(16)	(25)	18	(195)
	S&C Stoneblowing	Point End	MNT124	227	235	349	319	946	2,077	891	982	1,089	1,059	1,053	5,075	(664)	(747)	(740)	(740)	(107)	(2,998)
	Rail Grinding Plain Line	Miles	MNT309	4,568	18,944	7,561	7,998	6,660	45,731	10,057	10,173	10,407	10,510	10,408	51,555	(5,489)	8,771	(2,846)	(2,512)	(3,748)	(5,824)
	Rail Grinding S&C	Point End	MNT310	1,310	2,497	4,390	2,218	2,760	13,175	3,002	3,417	3,495	3,521	3,543	16,978	(1,692)	(920)	895	(1,304)	(783)	(3,803)
	Fences & Boundary Walls	Yard	MNT072	583,489	691,340	907,002	595,350	496,026	3,273,206	984,458	1,017,879	1,012,635	1,024,951	1,053,376	5,093,299	(400,969)	(326,539)	(105,633)	(429,601)	(557,350)	(1,820,093)
Electrical Power	Drainage	Yard	MNT073	375,340	623,170	523,753	653,125	428,944	2,604,331	947,126	947,117	947,101	947,042	947,211	4,735,596	(571,786)	(323,947)	(423,348)	(293,917)	(518,266)	(2,131,656)
	Level Crossing Management - Off Track	Each	MNT075	16,937	16,989	85,452	164,638	39,556	323,572	17,642	17,642	17,642	17,642	17,642	88,208	(705)	(653)	67,810	146,996	21,915	235,364
	Vegetation Removal of Boundary Trees	Number	MNT081	38,034	46,166	2,797			86,997	41,441	40,601	40,761	40,914	41,084	204,801	(3,407)	5,565	(37,964)	(40,914)	(41,084)	(117,804)
	Vegetation Management by Train	Mile	MNT082	1,747	4,176	1,584			7,507	9,143	9,147	9,044	8,940	8,940	45,215	(7,396)	(4,972)	(7,460)	(8,940)	(8,940)	(37,708)
	Vegetation Management (manual)	Square Yard	MNT170	6,062,608	6,671,439	3,491,150	3,644,875	768,451	20,638,524	4,483,211	4,934,380	5,385,561	5,836,668	6,287,977	26,927,797	1,579,397	1,737,059	(1,894,411)	(2,191,793)	(5,519,525)	(6,289,273)
	Vegetation Management (mechanised)	Mile	MNT171	12,965	11,629				24,594	2,276	2,361	2,422	2,470	2,495	12,022	10,689	9,268			19,958	
	Vegetation Management (mechanised)	Square Metre	MNT171			21,130,767	24,577,983	15,238,502	60,947,251												
	Maintain Conductor Rail	Various	MNT206	67,986	77,998	94,271	70,602	50,010	360,868	47,641	47,641	47,489	47,263	47,114	237,147	20,345	30,358	46,782	23,339	2,896	123,720
	Maintain DC Traction Power Supplies	Each	MNT209	38,050	43,427	57,942	45,139	35,401	219,959	33,773	33,909	34,051	34,146	34,256	170,135	4,277	9,518	23,891	10,993	1,145	49,824
Civils	Maintain OHL Components	Various	MNT211	349,803	360,212	418,914	397,680	373,272	1,899,880	191,345	196,328	201,245	213,215	219,550	1,021,682	158,458	163,884	217,669	184,465	153,722	878,198
	Maintain Points Heating	Each	MNT212	132,640	142,113	137,628	140,208	146,328	698,918	132,792	140,160	140,160	140,272	140,552	693,935	(152)	1,953	(2,531)	(64)	5,777	4,983
	Maintain Signalling Power Supplies	No.	MNT213	32,894	37,254	37,864	44,182	53,930	206,125	39,319	41,790	41,790	41,790	41,790	206,480	(6,425)	(4,536)	(3,927)	2,392	12,140	(356)
	Visual Examinations	No.	MNT226a	60,146	53,336	66,670	65,087	49,068	294,307	65,814	65,733	65,377	65,308	65,281	327,511	(5,668)	(12,397)	1,293	(221)	(16,213)	(33,204)
	Tunnel Examinations	No. minor elem.	MNT220	117,400	92,578	103,569	73,449	97,212	484,208	119,277	119,277	119,277	119,277	119,277	596,386	(1,877)	(26,699)	(15,708)	(45,828)	(22,065)	(112,178)
	Detailed Examinations	No.	MNT221	9,001	8,781	11,766	9,860	10,579	49,987	11,038	10,934	11,532	11,454	11,346	56,305	(2,037)	(2,153)	234	(1,594)	(767)	(6,318)
	Underwater Examinations	No.	MNT222	1,490	1,249	1,432	1,501	1,491	7,163	1,661	1,206	1,386	1,729	1,207	7,189	(171)	43	46	(228)	284	(26)
	Ancillary Structure Examinations	No. detailed	MNT223	833	1,245	2,479	2,229	2,228	9,014	788	1,508	1,537	1,482	1,088	6,403	45	(263)	942	747	1,140	2,611
Buildings	Hidden Critical Element Examinations	No.	MNT224	831	837	726	765	773	3,932	1,285	1,103	1,149	1,332	1,183	6,052	(454)	(266)	(423)	(567)	(410)	(2,120)
	Load Carrying Assessments	No. spans	MNT225	6,886	2,720	1,356	2,020	1,692	14,674	12,377	10,542	11,147	12,602	11,659	58,327	(5,491)	(7,822)	(9,791)	(10,582)	(9,967)	(43,653)
	Visual Examinations	Each	MNT226	10,014	10,415	9,651	8,593	39,438	78,111	14,133	14,103	13,890	13,844	14,147	70,117	(4,119)	(3,688)	(4,239)	(5,251)	25,291	7,994
	5 Yearly Examinations	Each	MNT227	701	1,299	1,102	613	362	4,077	1,047	1,100	1,367	1,434	1,037	5,985	(346)	199	(265)	(821)	(675)	(1,908)

Table 37: England & Wales asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	2.82	2.45	2.17	1.98	3.30	3.70	3.79	3.74	3.69	3.65	3.59	0.97	1.29	1.52	1.67	0.29
	Track geometry (Poor Track Geometry)	2.18%	2.07%	2.10%	2.12%	2.25%	2.35%	2.32%	2.31%	2.30%	2.26%	2.25%	0.14%	0.24%	0.20%	0.14%	-
	Track failures (service affecting)	5,141	4,961	4,809	4,801	4,794	5,536	4,954	4,864	4,768	4,683	4,590	(187)	(97)	(41)	(118)	(205)
Signalling	Signalling failures (service affecting)	14,539	14,008	13,485	12,865	13,514	14,990	14,610	14,466	14,304	14,174	14,035	71	458	819	1,309	521
Telecoms	Telecoms failures (service affecting)	3,765	2,875	2,382	2,055	3,861	2,197	1,796	1,386	1,195	1,099	1,076	(1,969)	(1,489)	(1,187)	(956)	(2,785)
Electrical Power	AC traction power failures (service affecting)	803	716	705	791	974	794	965	1,001	1,055	1,109	1,144	162	285	350	318	170
	DC traction power failures (service affecting)	286	295	290	341	296	327	330	328	312	304	299	44	33	22	(37)	3
	Non traction operational power supply failures (service affecting)	230	224	246	256	258	458	518	535	518	496	476	288	311	272	240	218
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	5,464	4,198	4,517	4,783	5,199	6,402	6,324	6,167	6,089	6,223	6,407	860	1,969	1,572	1,440	1,208
Structures	Number of open faults with a risk score ≥12	1,744	1,155	1,059	815	1,455	4,277	2,628	2,414	2,074	1,621	1,276	884	1,259	1,015	806	(179)
Earthworks	Earthwork failures	82	102	114	97	57	87	84	81	78	75	72	2	(20)	(37)	(22)	15
Points	Points failures (service affecting)	3,543	3,152	3,050	3,129	3,318	3,949	3,950	3,919	3,884	3,858	3,847	407	767	834	729	528

Table 38: England & Wales asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	49.9%	49.9%	50.1%	50.8%	49.3%	47.7%	47.7%	47.7%	47.9%	48.0%	48.6%	-2.2%	-2.2%	-2.2%	-2.8%	-0.7%
	Track - Used Life - Switch & Crossings	51.6%	51.0%	50.0%	50.0%	48.1%	53.2%	52.7%	51.9%	50.6%	49.9%	49.8%	1.1%	0.9%	0.6%	-0.1%	1.7%
	Track - Used Life - Sleepers	60.7%	61.1%	61.5%	62.6%	60.8%	59.3%	59.5%	59.3%	59.8%	59.9%	60.7%	-1.2%	-1.8%	-1.7%	-2.7%	-0.1%
	Track - Used Life - Ballast	48.6%	48.4%	48.7%	49.8%	48.1%	46.7%	46.5%	46.6%	46.8%	46.8%	47.4%	-2.1%	-1.8%	-1.9%	-3.0%	-0.7%
Signalling	Signalling Condition Index (SICA Remaining Life)	12.89	14.99	15.60	14.70	14.06	12.82	12.99	13.70	13.95	14.20	14.41	(0.10)	1.29	1.65	0.50	(0.35)
Telecoms	Telecoms - Remaining Life	63.9%	58.6%	50.5%	49.8%	50.5%	65.0%	62.1%	57.6%	54.5%	52.9%	53.8%	1.8%	1.0%	-4.0%	-3.1%	-3.3%
Electrical Power	EP - Remaining Life - Conductor Rail	67.6%	66.4%	67.2%	66.8%	66.1%	67.1%	65.8%	65.1%	64.9%	64.4%	63.9%	1.8%	1.3%	2.3%	2.4%	2.2%
	EP - Remaining Life - Overhead Line Equipment (OLE)	57.1%	56.4%	56.6%	57.6%	54.3%	58.6%	57.6%	57.0%	54.9%	54.6%	54.9%	-0.5%	-0.6%	1.7%	3.0%	-0.6%
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	54.8%	54.6%	54.7%	55.1%	55.3%	39.5%	39.5%	37.8%	37.0%	36.1%	35.3%	15.3%	16.8%	17.7%	19.0%	20.0%
	Light Maintenance Depot (LMD) - %age Remaining Life	51.6%	50.4%	50.6%	52.5%	46.8%	45.6%	44.9%	44.1%	43.4%	42.7%	42.0%	6.7%	6.3%	7.2%	9.8%	4.8%
Structures	Structures - PLBE Condition Banding	64.9	64.9	64.9	65.0	65.4	64.9	64.9	65.0	65.1	65.1	65.2	(0.0)	(0.1)	(0.2)	(0.1)	0.2
	Tunnel Condition Monitoring Index (TCMI)	88.1	85.6	86.0	85.1	89.9	83.0	83.3	83.6	83.9	84.2	84.5	4.8	2.0	2.1	0.9	5.4
Earthworks	Earthworks - Condition Banding	1.75	1.74	1.75	1.75	1.79	1.80	1.80	1.80	1.79	1.79	1.79	0.05	0.06	0.04	0.04	-
Drainage	Track Drainage - Condition Banding	1.38	1.40	1.46	1.44	1.54	1.61	1.62	1.65	1.65	1.64	1.62	0.24	0.25	0.19	0.20	0.08
	Earthwork/Structure Drainage - Condition Banding	1.53	1.55	1.66	1.64	1.73	1.80	1.82	1.83	1.84	1.82	1.82	0.29	0.28	0.18	0.18	0.09

Table 39: England & Wales track renewal volumes total BP18

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	13	27	25	23	22	110	6	15	2	8	31	7	27	10	21	14	79	
Complete Renewal	Track km	124	133	122	64	61	505	163	143	148	130	125	710	(40)	(10)	(26)	(66)	(64)	(205)
Complete (formation)	Track km	20	23	20	26	18	106	39	29	27	20	15	131	(20)	(6)	(7)	6	3	(24)
Rail Renewal	Track km	241	320	252	214	193	1,220	270	212	244	237	231	1,193	(29)	109	8	(23)	(38)	27
Single Rail	Track km	38	45	40	43	22	188	15	24	28	33	11	112	23	21	11	10	10	75
High Output																			
Automated Ballast Cleaning (ABC)	Track km		2				2	134	183	198	146	119	781	(134)	(181)	(198)	(146)	(119)	(779)
Rail Sleeper Relay	Track km	145	121	75	37	19	397	157	190	149	120		616	(12)	(69)	(74)	(83)	19	(219)
Heavy Refurbishment	Track km	232	229	157	31	49	698	103	155	235	238	217	947	129	75	(78)	(207)	(168)	(249)
Refurbishment																			
Heavy Refurbishment	Track km	78	42	34	28	16	198	57	80	63	57	54	310	21	(38)	(29)	(29)	(37)	(112)
Medium (concrete)	Track km	77	142	113	69	75	475	110	147	110	121	147	636	(33)	(5)	3	(52)	(72)	(160)
Medium (other)	Track km	114	131	99	127	87	558	90	112	174	154	117	647	24	18	(75)	(27)	(30)	(89)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	33	74	85	34	110	336	99	81	94	50	41	365	(66)	(7)	(9)	(16)	69	(29)
Full Renewal	Point Ends	208	213	180	147	189	937	296	287	313	209	218	1,323	(88)	(74)	(133)	(62)	(29)	(386)
Refurbishment																			
Heavy	Point Ends	149	203	193	136	193	873	235	307	411	409	313	1,675	(86)	(105)	(219)	(273)	(120)	(802)
Medium	Point Ends	249	430	459	305	170	1,612	376	391	432	358	324	1,881	(127)	39	27	(53)	(154)	(269)
Off Track																			
Fencing	m	571	817	471	243	207	2,309	593	745	689	673	739	3,439	(22)	72	(218)	(429)	(532)	(1,130)
Slab track	Track km	0	0	1	1	1	2	0	0	0	1		1	(0)	(0)	(0)	1	1	1

**Table 40: England & Wales track renewal volumes
(route criticality 1)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km		2	0	0	0	2			0		1	1			2	0	0	(1)	1
Complete Renewal	Track km	23	20	23	12	13	91	46	26	32	29	35	169	(23)	(7)	(10)	(16)	(22)	(78)	
Complete (formation)	Track km	7	8	8	9	6	38	16	12	14	9	5	56	(8)	(5)	(6)	1	1	(18)	
Rail Renewal	Track km	17	73	59	38	51	238	62	38	52	90	77	319	(45)	35	7	(52)	(27)	(82)	
Single Rail	Track km	12	19	14	17	10	72	5	18	11	11	1	46	8	1	3	6	8	26	
High Output																				
Automated Ballast Cleaning (ABC)	Track km		2				2	63	122	144	72	115	517	(63)	(120)	(144)	(72)	(115)	(515)	
Rail Sleeper Relay	Track km	56	44	16	3	3	121	100	140	21	79		340	(45)	(96)	(5)	(76)	3	(219)	
Heavy Refurbishment	Track km	61	71	51	3	9	194	14	18	11	5	2	50	47	52	40	(2)	8	144	
Refurbishment																				
Heavy Refurbishment	Track km	5	10	7	4	7	34	21	21	8	14	9	74	(16)	(11)	(1)	(10)	(3)	(41)	
Medium (concrete)	Track km	1	11	8	3	1	23	2	6	11	7	4	30	(0)	4	(3)	(4)	(3)	(6)	
Medium (other)	Track km	7	1	0	1	0	10		2	1			3	7	(2)	(1)	1	0	7	
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	4	8	8	8	22	49	14	10	14	13	8	59	(10)	(2)	(7)	(5)	14	(10)	
Full Renewal	Point Ends	19	52	40	28	48	187	99	65	68	79	52	363	(80)	(13)	(29)	(51)	(3)	(176)	
Refurbishment																				
Heavy	Point Ends	7	23	19	16	24	89	32	27	39	52	40	190	(25)	(5)	(19)	(36)	(16)	(101)	
Medium	Point Ends	40	35	49	33	15	171	40	66	43	32	37	218	(31)	6	1	(22)	(47)		
Off Track																				
Slab track	Track km				0	1	1				1		1			(0)	1	0		

**Table 41: England & Wales track renewal volumes
(route criticality 2)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km	39	33	29	12	18	131	36	41	41	30	26	175	3	(9)	(12)	(17)	(9)	(44)	
Complete Renewal	Track km	6	6	5	7	4	28	11	10	4	2	3	30	(5)	(4)	1	4	1	(3)	
Complete (formation)	Track km	104	75	56	54	44	333	81	56	39	48	37	261	22	19	17	6	7	72	
Rail Renewal	Track km	7	5	7	9	2	30	5	4	13	13	3	37	2	2	(6)	(4)	(1)	(7)	
Single Rail	Track km	0	0	0	0	0	0	66	42	54	49	4	215	(66)	(42)	(54)	(49)	(4)	(215)	
High Output	Automated Ballast Cleaning (ABC)	Track km	37	33	30	15	15	131	57	3	82	142	142	(20)	30	(52)	15	15	(11)	
Rail Sleeper Relay	Track km	83	109	42	16	8	259	2	44	63	26	45	181	81	64	(21)	(9)	(37)	78	
Heavy Refurbishment	Track km	11	3	3	2	3	21	6	3	17	2	1	30	4	(0)	(15)	0	1	(9)	
Refurbishment	Medium (concrete)	Track km	9	28	29	18	22	106	28	15	17	15	20	94	(20)	14	12	3	2	12
Medium (other)	Track km	21	3	2	5	3	33	3	2	2	4	6	17	18	0	(0)	1	(3)	16	
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	4	13	5	6	18	46	8	10	23	8	14	63	(4)	3	(18)	(2)	4	(17)	
Full Renewal	Point Ends	94	76	39	34	78	321	95	94	153	61	106	509	(1)	(18)	(114)	(27)	(28)	(188)	
Refurbishment	Heavy	Point Ends	48	48	39	29	41	205	47	35	65	67	31	245	1	13	(26)	(38)	10	(40)
Medium	Point Ends	79	105	101	66	40	391	85	61	90	58	58	352	(6)	44	12	8	(18)	39	
Off Track																				
Slab track	Track km	0	0	0	0	0	0	0	0	0	0	0	0	(0)	0	0	0	0	(0)	

**Table 42: England & Wales track renewal volumes
(route criticality 3)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP										
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5					
Plain Line																								
Conventional																								
Steel Relay	Track km	5	4	3	5	9	27							0	1	1			5	4	3	5	8	25
Complete Renewal	Track km	34	43	31	20	14	141	63	45	39	40	37	225						(29)	(3)	(8)	(21)	(23)	(84)
Complete (formation)	Track km	4	7	4	8	6	29	10	5	5	5	2	27						(6)	1	(0)	3	4	2
Rail Renewal	Track km	50	81	61	54	43	288	43	49	94	46	73	305						7	32	(33)	8	(30)	(16)
Single Rail	Track km	15	16	12	11	7	60	4	1	2	3	1	11						11	14	10	8	6	49
High Output																								
Automated Ballast Cleaning (ABC)	Track km	0					0	5	2		25		32						(5)	(2)		(25)		(32)
Rail Sleeper Relay	Track km	44	39	13	15	1	112		25	18	41		83						44	14	(5)	(26)	1	28
Heavy Refurbishment	Track km	26	47	47	12	10	142	34	38	61	77	70	280						(8)	9	(14)	(65)	(60)	(138)
Refurbishment																								
Heavy Refurbishment	Track km	36	7	11	9	3	66	6	30	9	8	11	64						30	(23)	2	1	(7)	2
Medium (concrete)	Track km	19	32	24	16	16	108	44	15	20	45	37	161						(25)	17	5	(29)	(22)	(54)
Medium (other)	Track km	46	35	19	28	22	150	26	47	48	26	11	158						20	(12)	(29)	2	11	(8)
Switches & Crossings																								
S&C delivered																								
Abandonment	Point Ends	4	23	53	8	28	116	41	12	18	7	4	81						(37)	12	35	1	24	35
Full Renewal	Point Ends	74	54	73	61	53	317	61	98	51	49	51	310						13	(44)	22	13	2	6
Refurbishment																								
Heavy	Point Ends	54	66	64	42	64	290	76	105	142	124	158	605						(22)	(39)	(77)	(82)	(94)	(314)
Medium	Point Ends	82	137	124	84	50	477	152	117	124	93	136	622						(70)	20	0	(9)	(86)	(145)
Off Track																								
Slab track	Track km	0	0				0	0	0	0			0						(0)	(0)	(0)		(0)	

**Table 43: England & Wales track renewal volumes
(route criticality 4)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	3	8	6	3	0	20	1			2	3	5	2	8	6	1	(3)	14
Complete Renewal	Track km	17	27	32	14	8	98	11	11	18	8	11	59	6	16	14	6	(4)	39
Complete (formation)	Track km	2	3	2	2	1	10	2	2	2	4	5	14	0	1	0	(2)	(3)	(4)
Rail Renewal	Track km	49	63	48	47	37	244	53	51	44	33	25	206	(4)	12	4	14	12	38
Single Rail	Track km	2	4	4	4	2	16	1	1	2	4	2	10	1	3	2	(0)	0	6
High Output																			
Automated Ballast Cleaning (ABC)	Track km							17					17						(17)
Rail Sleeper Relay	Track km	8	5	10			23		22	26			49	8	(18)	(16)			(25)
Heavy Refurbishment	Track km	61	3	17	0	18	99	51	47	79	127	97	401	11	(44)	(62)	(127)	(79)	(303)
Refurbishment																			
Heavy Refurbishment	Track km	18	11	7	8	1	44	13	15	12	27	11	79	5	(4)	(5)	(20)	(11)	(35)
Medium (concrete)	Track km	29	48	35	19	27	157	19	90	22	19	68	219	9	(42)	12	(1)	(41)	(62)
Medium (other)	Track km	19	45	43	47	29	183	34	35	87	61	37	253	(14)	10	(44)	(14)	(7)	(69)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	8	14	14	6	15	56	16	32	14	10	7	78	(8)	(18)	(0)	(4)	8	(22)
Full Renewal	Point Ends	9	12	27	18	6	73	34	24	18	18	7	101	(25)	(12)	9	(0)	(0)	(28)
Refurbishment																			
Heavy	Point Ends	33	45	45	31	35	190	56	102	124	47	47	376	(23)	(57)	(79)	(16)	(12)	(186)
Medium	Point Ends	28	83	98	64	37	312	55	102	105	67	52	381	(27)	(19)	(7)	(3)	(15)	(70)
Off Track																			
Slab track	Track km	0	0			0		0					0	(0)	0				(0)

**Table 44: England & Wales track renewal volumes
(route criticality 5)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	5	13	16	14	13	61	6	15	3	23			(1)	13	1	14	10	38
Complete Renewal	Track km	10	11	7	6	10	43	6	19	17	24	15	82	4	(8)	(10)	(18)	(6)	(39)
Complete (formation)	Track km	0	0			1	1	0	2		1	3		(0)	0	(2)		(0)	(2)
Rail Renewal	Track km	21	28	29	21	18	117	31	17	15	21	18	103	(10)	11	13	0	0	15
Single Rail	Track km	2	2	2	2	1	9	1	1	1	2	4	8	2	1	2	0	(3)	1
High Output																			
Automated Ballast Cleaning (ABC)	Track km															2	6	6	13
Rail Sleeper Relay	Track km			6	3		9			2						4	3		7
Heavy Refurbishment	Track km					3	3	1	7	21	3	3	35	(1)	(7)	(21)	(3)	1	(32)
Refurbishment																			
Heavy Refurbishment	Track km	8	10	6	6	3	33	10	10	16	6	21	63	(2)	0	(9)	(0)	(18)	(30)
Medium (concrete)	Track km	19	24	17	13	9	82	16	22	40	35	18	132	3	1	(23)	(23)	(9)	(50)
Medium (other)	Track km	21	47	34	47	33	181	28	25	36	64	64	217	(6)	21	(2)	(17)	(31)	(35)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	13	16	5	7	27	69	20	18	25	13	8	84	(7)	(2)	(20)	(5)	19	(15)
Full Renewal	Point Ends	11	18	1	6	3	40	6	6	23	2	3	40	5	12	(22)	4	0	0
Refurbishment																			
Heavy	Point Ends	7	21	24	18	27	98	24	38	41	119	37	259	(17)	(17)	(17)	(101)	(10)	(161)
Medium	Point Ends	20	70	86	58	28	262	44	45	70	108	40	308	(24)	25	16	(50)	(13)	(46)
Off Track																			
Slab track	Track km																		

Table 45: England & Wales buildings and civils volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Structures																			
Underbridges	m ²	53,624	91,573	90,647	52,111	32,479	320,434	106,953	122,370	133,673	112,597	107,366	582,959	(53,329)	(30,797)	(43,026)	(60,485)	(74,887)	(262,526)
Overbridges (incl BG3)	m ²	9,314	11,663	12,717	12,529	9,651	55,874	23,850	31,801	14,105	9,465	9,815	89,036	(14,536)	(20,138)	(1,388)	3,064	(164)	(33,163)
Tunnels	m ²	16,073	28,646	16,331	11,899	20,930	93,879	27,359	73,267	31,458	37,908	31,342	201,334	(11,286)	(44,621)	(15,127)	(26,010)	(10,412)	(107,455)
Culverts	m ²	4,432	4,560	3,448	2,166	2,491	17,097	1,838	2,686	3,192	3,023	2,596	13,335	2,594	1,874	257	(857)	(106)	3,763
Footbridges	m ²	544	1,649	2,186	1,876	3,143	9,398	1,504	2,260	2,567	3,789	1,520	11,641	(961)	(611)	(381)	(1,913)	1,623	(2,243)
Coastal & Estuary Defences	m	6,999	3,459	2,563	5,611	2,449	21,081	1,740	3,812	1,860	1,860	1,790	11,062	5,259	(353)	703	3,751	659	10,019
Retaining Walls	m ²	3,350	7,288	13,099	2,181	2,136	28,054	3,614	5,868	6,788	4,586	4,170	25,026	(264)	1,420	6,311	(2,405)	(2,034)	3,028
Earthworks	5-chain	1,576	3,263	2,621	4,577	1,333	13,370	2,748	2,669	2,567	3,091	2,757	13,830	(1,171)	595	54	1,486	(1,424)	(460)
Track Drainage																			
Renewal	lm	5,829	11,305	8,775	5,662	12,085	43,657	7,343	6,453	6,363	6,199	6,158	32,516	(1,514)	4,852	2,412	(537)	5,927	11,141
Refurbishment	lm	15,605	98,864	81,106	109,272	61,325	366,172	32,509	32,613	32,525	32,550	32,601	162,797	(16,903)	66,251	48,581	76,722	28,724	203,375
New Build	lm	2,467	2,599	4,509	5,285	8,202	23,061	808	799	798	790	789	3,984	1,659	1,800	3,712	4,495	7,412	19,077
EW Drainage																			
Renewal	lm	1,566	7,320	706	521	639	10,751	6,091	6,094	5,497	4,931	3,708	26,320	(4,525)	1,226	(4,791)	(4,410)	(3,069)	(15,569)
Refurbishment	lm	1,017	1,184	10,199	3,533	1,417	17,350	1,270	1,264	1,121	2,455	1,924	8,034	(253)	(80)	9,078	1,077	(507)	9,316
Maintenance	lm	2,755	19,101	7,039	2,608	1,160	32,662	21,150	22,477	19,677	22,744	20,692	106,739	(18,395)	(3,376)	(12,638)	(20,136)	(19,532)	(74,077)
New Build	lm	5,410	5,616	7,125	3,247	182	21,580	5,302	5,227	5,227	5,367	5,512	26,635	108	389	1,898	(2,120)	(5,330)	(5,055)
Franchised Stations																			
Footbridges	m ²	1,326	5,230	1,763	1,567	1,770	11,656	4,968	5,122	4,311	2,872	1,798	19,071	(3,642)	108	(2,548)	(1,305)	(28)	(7,415)
Train Sheds	m ²	7,753	11,800	1,500	10,837	11,838	43,728	23,669	5,680		1,932		31,281	(15,916)	6,120	1,500	8,905	11,838	12,447
Canopies	m ²	45,801	15,492	30,700	2,381	22,141	116,515	17,976	19,523	18,228	8,794	12,637	77,158	27,825	(4,032)	12,472	(6,413)	9,504	39,357
Platforms	m ²	51,901	28,636	31,630	7,847	5,135	125,149	77,503	68,729	61,946	34,914	18,732	261,824	(25,602)	(40,093)	(30,316)	(27,067)	(13,597)	(136,675)
Buildings	m ²	22,575	8,968	13,473	9,578	6,145	60,740	6,116	3,290	2,759	5,430	1,714	19,309	16,459	5,678	10,714	4,148	4,431	41,431
Lifts & Escalators	No.	4	14				18	9	6	15	10	2	42	(5)	8	(15)	(2)	(24)	
Managed Stations																			
Footbridges	m ²	120					175	295						120		175		295	
Train Sheds	m ²	2,184	11,321	2,826	2,320	18,651		1,600		1,500	13,168	45,268	61,536	(1,600)	2,184	9,821	(10,342)	(42,948)	(42,885)
Canopies	m ²	265	527	1,581			2,373	5,930	1,193	6,559	600	1,325	15,607	(5,665)	(666)	(4,978)	(600)	(1,325)	(13,234)
Platforms	m ²	217	100				2,685	2,600	800	100	8,560	7,205	19,265	(2,383)	(700)	(100)	(8,560)	(4,837)	(16,580)
Buildings	m ²	6,432	1,892	8,214	854	3,023	20,415	5,554	5,550	2,027	21,444	2,896	37,471	878	(3,658)	6,187	(20,590)	127	(17,056)
Lifts & Escalators	No.	3	1				4	4		1		6	11	(1)	1	(1)	(6)	(7)	
Light Maintenance Depots																			
Buildings	m ²	232	9,245	20,906	6,260	7,130	43,773	66,101	6,946	3,001	2,128	1	78,177	(65,869)	2,299	17,905	4,132	7,129	(34,404)
Depot Shed	m ²	32,450	17,809	15,508	2,373	93	68,233	30,588	4,450				35,038	1,862	13,359	15,508	2,373	93	33,195
Lineside Buildings																			
Buildings	m ²	5,356	6,744	6,586	8,652	3,030	30,368	18,704	3,027	2,592	2,419	2,419	29,161	(13,348)	3,717	3,994	6,233	611	1,207
MDU																			
Buildings	m ²	7,397	4,920	6,350	18,523	25,177	62,367	22,160	8,201	8,188	7,854		46,403	(14,763)	(3,281)	(1,838)	10,669	25,177	15,964

Table 46: England & Wales signalling renewal volumes

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Full Conventional Resignalling	SEUs	516	993	584	160	1,128	3,381	1,057	1,231	513	1,289	93	4,184	(541)	(238)	71	(1,129)	1,034	(803)	
ERTMS Resignalling	SEUs								2	115	146	868	1,131			(2)	(115)	(146)	(868) (1,131)	
Partial Conventional Resignalling	SEUs	169	414	361	47	528	1,519	609	886	860	262	290	2,907				(441)	(472)	(499)	(215) (1,388)
Targeted Component Renewal	SEUs	7	35	27	2	11	81	141	79	78	91	142	532				(135)	(45)	(51)	(89) (451)
Modular Resignalling	SEUs							70	365	437	111	203	1,185				(70)	(346)	(399)	(16) (1,033)
Level Crossing Renewals	No.	30	45	19	12	34	140	58	103	106	94	54	415				(28)	(58)	(87)	(82) (20) (275)

Table 47: England & Wales elec'n and plant renewal vols

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Contact Systems																			
Overhead Line Equipment (OLE) Re-wiring	wire runs	21	29	26	48	47	171	36	48	79	54	39	256	(15)	(19)	(53)	(6)	8	(85)
Mid-life Refurbishment	wire runs			5			5	56	67	67	52	40	282	(56)	(67)	(62)	(52)	(40)	(277)
Structure Renewals	No.	81	115	187	232	273	888	113	154	198	60	95	621	(32)	(39)	(11)	172	178	267
Conductor rail																			
Renewals	km	26	41	31	17	19	134	35	26	31	23	15	129	(9)	15	(0)	(5)	5	5
AC distribution																			
HV Switchgear Renewal	No.	21	6				27	16	8	9	5		38	5	(2)	(9)	(5)	(11)	
Booster Transformers	No.							21	20	6	7	5	59	(21)	(20)	(6)	(7)	(5)	(59)
DC distribution																			
HV Switchgear Renewal	No.	2	3	14	21	10	50	2	36	3	9	3	53		(33)	11	12	7	(3)
HV Cables	km	6	20	12	2	3	44	40	20	18	26	21	125	(34)	(1)	(6)	(24)	(17)	(81)
LV Switchgear Renewal	No.	65	48	37	1		151	78	72	43	44	9	245	(13)	(24)	(6)	(43)	(9)	(94)
LV Cables	km	22	37	33	38	19	149	19	16	21	18	20	94	3	20	12	20	(1)	55
Transformer Rectifiers	No.	8	2		1		11	2	2	5			9	6	(5)	1		2	
Fixed plant																			
Signalling Power Cable Renewal	km	22	69	45	159	121	416	246	229	165	114	92	846	(224)	(161)	(120)	44	29	(431)
Principle Supply Point Renewal	No.	12	101	11	8	5	137	20	16	2	3	1	43	(8)	85	9	5	4	94
Rail Heating																			
Points Heating Renewal	Point End	71	151	76	128	55	481	334	148	117	93	92	784	(263)	3	(41)	35	(37)	(303)

Table 48: England & Wales telecoms renewal volumes

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Station Information and Surveillance Systems																			
Customer Information Systems	No.	112	20	22	189	622	965	174	742	953	445	170	2,485	(62)	(722)	(931)	(256)	452	(1,520)
Public Address	No.	296	294	88	1,309	3,137	5,124	975	4,017	3,841	1,827	1,061	11,721	(679)	(3,723)	(3,753)	(518)	2,076	(6,597)
CCTV	No.	151	151	339	497	389	1,527	253	2,426	2,132	526	268	5,605	(102)	(2,275)	(1,793)	(29)	121	(4,078)
Clocks	No.		8	8	6	10	32	57	27	105	25	14	228	(57)	(19)	(97)	(19)	(4)	(196)
Operational Comms																			
PABX Concentrator	No. of Lines		1,088	6,116	2,948		10,152	1,300	997	137	543	66	3,043	(1,300)	91	5,979	2,405	(66)	7,109
Processor Controlled Concentrator	No. of Lines	21		14			35	141	206	103		49	499	(120)	(206)	(89)	(49)	(464)	
Driver-Only Operation: CCTV	No.	9	35	33		2	79	67		31	102	38	238	(58)	35	2	(102)	(36)	(160)
Driver-Only Operation: Mirrors	No.		31			5	36	26	83	3	16		128	(26)	(52)	(3)	(16)	5	(92)
Public Emergency Telephone System	No.	22	13	11	8		53	1		34	26	11	72	21	13	(23)	(18)	(11)	(19)
Human Machine Interface Large	No.		11	60	30		101	5	12	10	5	6	38	(5)	(1)	50	25	(6)	63
Human Machine Interface Small	No.							1					1	(1)					(1)
Radio System	No.		3				3						3	(3)	3				
Power Systems	No.	7	0		49	8	64		2	87	46	14	149	7	(2)	(87)	3	(6)	(85)

Table 49: England & Wales maintenance volumes

			Code	BP18					
				2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Track	Plain Line Tamping (km)	Km	MNT004	6,845	4,720	8,520	5,971	4,786	30,842
	Plain Line Stoneblowing (km)	Km	MNT005	2,166	2,517	2,203	1,450	2,125	10,461
	Manual Wet Bed Removal	Bay	MNT006	23,140	21,633	20,968	19,162	17,686	102,590
	Mechanical Wet Bed Removal	Bay	MNT012	11,057	11,151	9,035	8,561	9,562	49,366
	S&C Tamping	Point End	MNT007	3,157	2,353	2,653	2,167	2,866	13,196
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	15,743	17,871	22,291	18,819	19,080	93,804
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	92,880	91,516	112,834	92,602	88,598	478,430
	Mechanical Reprofiling of Ballast	Mile	MNT017	2,556	5,992	3,120	11,431	1,829	24,928
	Manual Reprofiling of Ballast	Rail Yards	MNT020	2,144,626	2,199,344	2,224,704	2,141,981	1,492,401	10,203,056
	Replacement of Pads & Insulators	Sleeper	MNT029	416,540	824,575	942,013	809,115	469,212	3,461,456
	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	1,738,623	1,358,401	1,588,962	1,467,834	1,327,952	7,481,772
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	421,069	410,177	455,854	472,826	394,493	2,154,419
	S&C Renew Crossing	Crossing	MNT120	580	779	691	617	630	3,297
	S&C Maintenance	Point End	MNT122	351,075	336,581	396,730	344,122	294,099	1,722,606
	S&C Renew Half Set of Switches	H/S Switch	MNT123	606	679	688	676	700	3,349
	S&C Stoneblowing	Point End	MNT124	227	235	330	293	911	1,997
	Rail Grinding Plain Line	Miles	MNT309	4,497	17,248	7,505	7,975	6,586	43,811
	Rail Grinding S&C	Point End	MNT310	1,098	2,249	4,286	2,117	2,671	12,421
	Fences & Boundary Walls	Yard	MNT072	470,646	581,011	508,067	404,116	396,891	2,360,730
	Drainage	Yard	MNT073	305,383	542,488	461,693	555,997	346,348	2,211,910
Off track	Level Crossing Management - Off Track	Each	MNT075	14,773	13,669	73,157	154,784	33,028	289,412
	Vegetation Removal of Boundary Trees	Number	MNT081	31,880	40,683	2,099			59,691
	Vegetation Management by Train	Mile	MNT082	1,746	4,171	1,584			7,501
	Vegetation Management (manual)	Square Yard	MNT170	5,594,219	6,225,825	3,380,245	3,564,231	768,451	19,532,972
	Vegetation Management (mechanised)	Mile	MNT171	12,758	11,239				23,997
	Vegetation Management (mechanised)	Square Metres	MNT171		20,660,983	23,389,638	14,127,213		58,177,834
	Maintain Conductor Rail	Various	MNT206	67,986	77,998	94,271	70,602	50,010	360,868
	Maintain DC Traction Power Supplies	Each	MNT209	36,837	41,325	56,397	43,709	34,343	212,611
	Maintain OHL Components	Various	MNT211	330,212	338,337	379,374	344,850	362,595	1,755,368
	Maintain Points Heating	Each	MNT212	126,246	134,835	129,161	133,179	137,182	660,604
Electrical Power	Maintain Signalling Power Supplies	No.	MNT213	28,325	33,782	33,801	40,034	46,940	182,882
	Visual Examinations	No.	MNT226a	49,611	42,362	56,227	54,972	37,975	241,147
	Tunnel Examinations	No. minor elem	MNT220	108,567	83,526	94,879	73,164	96,926	457,062
	Detailed Examinations	No.	MNT221	7,700	7,251	8,458	7,658	8,844	39,911
	Underwater Examinations	No.	MNT222	1,396	1,096	1,326	1,265	1,293	6,376
	Ancillary Structure Examinations	No. detailed	MNT223	634	1,084	2,072	1,380	1,394	6,564
	Hidden Critical Element Examinations	No.	MNT224	739	689	588	566	608	3,190
	Load Carrying Assessments	No. spans	MNT225	6,775	2,459	1,078	1,652	1,312	13,276
	Visual Examinations	Each	MNT226	9,662	8,968	8,653	8,261	39,438	74,982
	5 Yearly Examinations	Each	MNT227	519	452	423	540	362	2,296

Delivery Plan (mar 2014)

				2014/15	2015/16	2016/17	2017/18	2018/19	CP5			BP18 vs DP			
				2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Track	6,011	5,948	5,781	5,725	5,747	29,212				834	(1,227)	2,739	245	(961)	1,630
	3,102	3,077	2,998	3,010	2,990	15,177				(936)	(560)	(796)	(1,559)	(865)	(4,716)
	17,318	17,162	16,625	15,973	15,329	82,407				5,822	4,472	4,343	3,189	2,357	20,182
	9,766	9,675	9,578	8,936	8,407	46,362				1,291	1,476	(543)	(375)	1,155	3,004
	4,147	4,062	4,027	3,957	3,968	20,161				(990)	(1,709)	(1,374)	(1,790)	(1,102)	(6,964)
	13,258	13,068	12,885	12,235	11,918	63,364				2,485	4,803	9,406	6,584	7,162	30,440
	78,676	74,039	69,747	68,795	67,873	359,130				14,204	17,476	43,087	23,807	20,726	119,300
	2,724	2,577	2,520	2,493	2,494	12,808				(167)	3,415	600	8,937	(665)	12,119
	1,547,015	1,466,746	1,421,614	1,403,854	1,342,208	7,181,436				597,612	732,598	803,090	738,127	150,193	3,021,620
	379,838	363,500	349,995	338,000	328,158	1,759,490				36,702	461,076	592,018	471,116	141,054	1,701,966
	1,072,244	1,039,805	991,002	944,321	930,114	4,977,486				666,379	318,596	597,959	523,514	397,838	2,504,286
	213,893	201,466	184,945	166,624	164,254	931,183				207,175	208,711	270,909	306,202	230,238	1,223,235
	607	597	581	580	572	2,936				(27)	182	111	37	58	361
	399,408	398,942	399,741	398,091	397,669	1,993,851				(48,333)	(62,361)	(3,011)	(53,970)	(103,571)	(271,245)
	703	694	687	680	675	3,440				(97)	(15)	1	(4)	24	(92)
	822	913	1,020	990	984	4,728				(595)	(678)	(689)	(697)	(73)	(2,731)
	8,801	8,917	9,151	9,254	9,152	45,275				(4,304)	8,331	(1,646)	(1,279)	(2,566)	(1,464)
	2,786	3,201	3,279	3,305	3,327	15,898				(1,688)	(952)	1,007	(1,189)	(656)	(3,477)
	794,702	828,305	823,275	835,850	864,356	4,146,488				(324,056)	(247,295)	(315,208)	(431,734)	(467,466)	(1,785,758)
	795,220	795,363	795,505	795,647	795,789	3,977,524				(489,837)	(252,875)	(333,812)	(239,649)	(449,441)	(1,765,614)
Civils	14,793	14,793	14,793	14,793	14,793	73,963				(19)	(1,24)	58,364	139,992	18,236	215,449
	28,294	27,465	27,635	27,804	27,974	139,171				3,586	13,218	(25,536)	(27,804)	(27,974)	(79,479)
	7,965	7,970	7,868	7,765	7,765	39,333				(6,219)	(3,799)	(6,284)	(7,765)	(7,765)	(31,832)
	4,311,911	4,763,224	5,214,536	5,665,849	6,117,162	26,072,683				1,282,308	1,462,601	(1,834,291)	(2,101,618)	(5,348,711)	(6,539,711)
	2,249	2,334	2,395	2,443	2,468	11,891				10,509	8,905				19,414
	47,641	47,641	47,489	47,263	47,114	237,147				20,345	30,358	46,782	23,339	2,896	123,720
	33,773	33,909	34,051	34,146	34,256	170,135				3,064	7,416	22,346	9,563	87	42,476
	149,345	151,577	153,743	165,713	165,683	786,060				180,867	186,760	225,631	179,138	196,912	969,308
	124,245	131,613	131,613	131,725	132,005	651,203				2,000	3,221	(2,452)	1,454	5,177	9,400
	33,004	35,475	35,475	35,475	35,475	174,902				(4,679)	(1,693)	(1,674)	4,560	11,466	7,980
Buildings	54,400	54,703	55,977	54,924	54,338	274,340				(4,789)	(12,341)	250	48	(16,363)	(33,193)
	110,193	110,193	110,193	110,193	110,193	550,966				(1,626)	(26,667)	(15,314)	(37,029)	(13,267)	(93,904)
	9,271	9,279	8,247	9,153	9,604	45,555				(1,571)	(2,028)	211	(1,495)	(760)	(5,644)
	1,509	1,124	1,293	1,577	1,125	6,628				(113)	(28)	33	(312)	168	(252)
	542	1,305	1,294	1,272	874	5,287	</								

Table 50 Scotland: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	2.59	1.53	0.85	1.27	1.50	6.69	6.65	6.64	6.63	6.61	6.60	4.06	5.11	5.78	5.34	5.10
	Track geometry (Poor Track Geometry)	1.77%	1.54%	1.82%	1.69%	1.60%	2.40%	2.40%	2.38%	2.35%	2.33%	2.30%	0.63%	0.84%	0.53%	0.64%	0.70%
	Track failures (service affecting)	366	325	292	339	310	374	381	381	381	381	381	15	56	89	42	71
Signalling	Signalling failures (service affecting)	1,721	1,718	1,774	1,598	1,775	1,843	1,824	1,795	1,766	1,742	1,718	103	77	(8)	144	(57)
Telecoms	Telecoms failures (service affecting)	298	385	387	207	354	150	213	203	192	181	164	(85)	(182)	(195)	(26)	(190)
Electrical Power	AC traction power failures (service affecting)	56	51	53	49	53	139	86	86	94	108	119	30	35	41	59	66
	DC traction power failures (service affecting)																
	Non traction operational power supply failures (service affecting)	33	14	27	23	18	42	42	41	40	39	38	9	27	13	16	20
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	371	306	320	364	310	590	590	590	590	590	590	219	284	270	226	280
Structures	Number of open faults with a risk score ≥12	90	75	33	23	67	100	98	96	94	92	90	8	21	61	69	23
Earthworks	Earthwork failures	19	22	20	14	18	22	21	20	20	19	18	2	(2)	(0)	5	(0)
Points	Points failures (service affecting)	465	422	405	418	386	438	440	430	420	410	400	(25)	8	15	(8)	14

Table 51 Scotland: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	61.5%	60.5%	60.3%	60.1%	59.7%	59.7%	58.8%	58.6%	59.0%	59.5%	60.5%	-2.8%	-1.9%	-1.3%	-0.6%	0.8%
	Track - Used Life - Switch & Crossings	50.1%	48.4%	48.2%	47.4%	49.2%	48.3%	48.3%	48.2%	47.8%	48.1%	49.1%	-1.8%	-0.2%	-0.4%	0.7%	-0.2%
	Track - Used Life - Sleepers	73.7%	72.7%	72.6%	72.3%	72.8%	70.8%	70.8%	70.9%	71.3%	71.7%	72.2%	-2.9%	-1.8%	-1.3%	-0.6%	-0.6%
	Track - Used Life - Ballast	55.5%	54.5%	54.0%	53.5%	55.7%	53.9%	54.9%	55.3%	55.8%	56.2%	56.8%	-0.6%	0.8%	1.8%	2.7%	1.1%
Signalling	Signalling Condition Index (SICA Remaining Life)	10.42	13.97	14.30	13.61	11.80	11.50	10.57	10.56	12.35	11.97	11.44	(0.15)	3.41	1.95	1.64	0.36
Telecoms	Telecoms - Remaining Life	63.2%	58.5%	55.8%	52.0%	52.7%	66.2%	61.2%	55.3%	56.5%	50.3%	49.6%	2.0%	3.2%	-0.7%	1.7%	3.1%
Electrical Power	EP - Remaining Life - Conductor Rail																
	EP - Remaining Life - Overhead Line Equipment (OLE)	62.9%	62.8%	65.9%	66.1%	58.0%	64.1%	62.9%	61.7%	59.4%	58.7%	58.0%	-	1.1%	6.5%	7.4%	-0.0%
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	58.7%	56.5%	55.0%	55.9%	57.0%	42.5%	42.5%	40.8%	39.9%	39.0%	38.2%	16.2%	15.7%	15.1%	16.9%	18.8%
	Light Maintenance Depot (LMD) - %age Remaining Life	54.7%	58.8%	59.4%	61.5%	47.1%	44.6%	44.1%	43.6%	43.1%	42.6%	42.2%	10.6%	15.2%	16.3%	18.9%	4.9%
Structures	Structures - PLBE Condition Banding	63.1	63.1	63.3	63.0	63.0	63.0	62.9	62.8	62.8	62.7	62.6	0.2	0.3	0.5	0.3	0.4
	Tunnel Condition Monitoring Index (TCMI)	91.7	91.6	91.6	91.6	92.5	85.0	85.1	85.3	85.6	85.6	85.5	6.7	6.2	6.0	6.0	7.1
Earthworks	Earthworks - Condition Banding	1.82	1.78	1.76	1.75	1.90	1.55	1.55	1.55	1.54	1.54	1.54	(0.27)	(0.23)	(0.22)	(0.21)	(0.36)
Drainage	Track Drainage - Condition Banding	2.00	2.00	1.99	1.97	2.06	2.03	2.02	2.04	2.06	2.08	2.06	0.02	0.04	0.07	0.11	(0.00)
	Earthwork/Structure Drainage - Condition Banding	1.27	1.28	1.30	1.31	1.38	1.33	1.32	1.34	1.36	1.38	1.38	0.05	0.06	0.06	0.07	0.00

Table 52 Scotland: track renewal volumes total

Table 52 Scotland: track renewal volumes total		BP 18						Delivery Plan (Mar 2014)						BP 18 vs BP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	16	11	6	5	3	41	17	14	1	2	5	38	(1)	(2)	5	3	(1)	3
Complete Renewal	Track km	17	19	16	22	18	93	23	37	18	18	19	114	(6)	(18)	(1)	4	(1)	(22)
Complete (formation)	Track km	2	12	18	11	15	58	4	8	11	13	5	40	(2)	4	7	(2)	10	18
Rail Renewal	Track km	37	29	21	25	18	129	46	27	22	13	6	114	(9)	2	(1)	12	11	15
Single Rail	Track km	13	17	15	19	17	82	24	9	15	6	5	59	(11)	8	1	13	12	23
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km	2	6	13	0	2	24	8	7	9	9	4	38	(6)	(1)	4	(8)	(2)	(14)
Medium (concrete)	Track km	30	84	80	69	64	328	68	63	71	65	61	329	(38)	21	10	4	3	(1)
Medium (other)	Track km	25	40	33	35	12	145	70	34	34	42	30	209	(45)	6	(1)	(7)	(18)	(64)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	6	14	11	4	9	44	7	11	4			22	(1)	3	7	4	9	22
Full Renewal	Point Ends	23	19	18	35	13	108	27	31	33	20	11	122	(4)	(12)	(15)	15	2	(14)
Refurbishment																			
Heavy	Point Ends	21	41	48	19	47	176	30	30	33	26	3	122	(9)	11	15	(7)	44	54
Medium	Point Ends	11	36	30	31	23	131	25	38	47	50	44	204	(14)	(2)	(17)	(19)	(21)	(73)
Off Track																			
Fencing	m	226	161	220	221	224	1,052	215	215	215	215	215	1,075	11	(54)	5	6	9	(23)
Slab track	Track km							2									2		2

**Table 53: Scotland track renewal volumes
(route criticality 1)**

	BP18	Delivery Plan (mar 2014)						BP18 vs DP				
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19
Plain Line												
Conventional												
Steel Relay	Track km											
Complete Renewal	Track km			0	0					0	0	
Complete (formation)	Track km			0	1	1				0	1	1
Rail Renewal	Track km											
Single Rail	Track km											
High Output												
Automated Ballast Cleaning (ABC)	Track km											
Rail Sleeper Relay	Track km		3		3					3		3
Heavy Refurbishment	Track km											
Refurbishment												
Heavy Refurbishment	Track km											
Medium (concrete)	Track km											
Medium (other)	Track km											
Switches & Crossings												
S&C delivered												
Abandonment	Point Ends											
Full Renewal	Point Ends											
Refurbishment												
Heavy	Point Ends											
Medium	Point Ends											
Off Track												
Slab track	Track km											

**Table 54 Scotland: track renewal volumes
(route criticality 2)**

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line													
Conventional													
Steel Relay	Track km												
Complete Renewal	Track km	5	7	3	7	2	23	8	22	9	12	8	59
Complete (formation)	Track km	1	2	6	3	5	18	2	5	3	1	3	14
Rail Renewal	Track km	35	4	4	3	2	49	3	8	2	0	1	15
Single Rail	Track km	13	4	4	5	4	30	7	4	2	0	1	14
High Output													
Automated Ballast Cleaning (ABC)	Track km												
Rail Sleeper Relay	Track km			34	0		33			15	53	6	73
Heavy Refurbishment	Track km				7	34	27			71			
Refurbishment													
Heavy Refurbishment	Track km	0	1	0	0	0	2	1	3	1	2	0	7
Medium (concrete)	Track km	30	0	0	0	0	31	1					1
Medium (other)	Track km	25	1	6	0	0	32	1	0	0	1	1	3
Switches & Crossings													
S&C delivered													
Abandonment	Point Ends	1	4			5	10	1	7	4			12
Full Renewal	Point Ends	8	6	5	7	8	34	17	26	15	17		75
Refurbishment													
Heavy	Point Ends	20	11	13	4	12	60	13	17	7	16	3	56
Medium	Point Ends	11	9	7	7	6	40	6	11	12	12	8	49
Off Track													
Slab track	Track km												

**Table 55 Scotland: track renewal volumes
(route criticality 3)**

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line													
Conventional													
Steel Relay	Track km	1					1	1	1		2	1	(1)
Complete Renewal	Track km	5	9	7	6	4	31	10	13	6	6	9	44
Complete (formation)	Track km	1	7	6	5	7	25	1	3	8	11	1	24
Rail Renewal	Track km	0	5	4	4	4	17	8	4	3	1	4	19
Single Rail	Track km		6	5	7	6	25	9	3	8	1	0	21
High Output													
Automated Ballast Cleaning (ABC)	Track km										1	1	
Rail Sleeper Relay	Track km												(1)
Heavy Refurbishment	Track km					0	0			2	8	6	15
Refurbishment													
Heavy Refurbishment	Track km	2	4	11	0	1	17	5	3	2	5	2	17
Medium (concrete)	Track km		10	10	14	12	46	8	6	13	9	5	40
Medium (other)	Track km		7	5	6	2	20	25	1	5	3	2	36
Switches & Crossings													
S&C delivered													
Abandonment	Point Ends	3	6	11		4	24	5	4			9	(2)
Full Renewal	Point Ends	8	13	11	16	4	53	10	4	10	3	11	38
Refurbishment													
Heavy	Point Ends		21	23	9	31	85	12	7	18	4		41
Medium	Point Ends		11	9	9	7	36	13	11	7	15	15	61
Off Track													
Slab track	Track km				2		2						2
													2

**Table 56 Scotland: track renewal volumes
(route criticality 4)**

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line													
Conventional													
Steel Relay	Track km	1	3	3	0	1	8	0	2	1	1	4	1
Complete Renewal	Track km	7	4	6	7	9	33	4	2	2	0	1	10
Complete (formation)	Track km		3	6	3	2		0		1	1	2	(0)
Rail Renewal	Track km	1	3	2	2	2	9	3	6		1	1	11
Single Rail	Track km		5	4	5	5	19	6	0	3	4	4	16
High Output													
Automated Ballast Cleaning (ABC)	Track km												
Rail Sleeper Relay	Track km												
Heavy Refurbishment	Track km							0	2		3		(0)
Refurbishment													(3)
Heavy Refurbishment	Track km	1	2	0	1	4		0	0	6	0	2	9
Medium (concrete)	Track km	39	37	29	27	133		32	32	29	30	30	152
Medium (other)	Track km	3	2	2	1	7		3	1	4	2	1	11
Switches & Crossings													
S&C delivered													
Abandonment	Point Ends	2	4		4	0	10	1				1	4
Full Renewal	Point Ends	7	0	1	12	1	21		1	8		9	7
Refurbishment													(1)
Heavy	Point Ends	1	7	11	3	3	26	2	6	7	6	21	1
Medium	Point Ends	10	9	9	7	34		6	18	20	14	58	4
Off Track													(9)
Slab track	Track km												(11)

**Table 57 Scotland: track renewal volumes
(route criticality 5)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	14	9	3	4	3	32	17	11			5	32	(3)	(2)	3	4	(2)	0
Complete Renewal	Track km	0		1	2	2	6	0	0	0	0		1	(0)	(0)	1	2	2	4
Complete (formation)	Track km																		
Rail Renewal	Track km	1	17	12	15	10	55	32	9	17	10		69	(32)	7	(5)	5	10	(14)
Single Rail	Track km		2	2	2	2	8	3	1	3	1		7	(3)	1	(1)	2	2	1
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km	0	0	0	0	0	1	2	1	0	1		5	(2)	(0)	(0)	(1)	0	(4)
Medium (concrete)	Track km	35	33	26	24		118	28	26	29	26	26	135	(28)	9	4	(0)	(2)	(17)
Medium (other)	Track km	29	21	27	9		86	41	31	25	36	26	159	(41)	(3)	(4)	(9)	(17)	(73)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends																		
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends	1	1	3	1	1	5	3		1			4	(3)	1	(0)	3	1	1
Medium	Point Ends	6	5	5	4		21	6	10	10	3	7	36	(6)	(4)	(5)	2	(3)	(15)
Off Track																			
Slab track	Track km																		

Table 58 Scotland: buildings and civils volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP												
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Structures																				
Underbridges	m ²	10,860	25,560	25,530	22,176	22,297	106,423	14,078	21,109	24,666	27,078	17,931	104,862	(3,218)	4,451	864	(4,902)	4,366	1,561	
Overbridges (incl BG3)	m ²	459	1,812	201	308	1,528	4,308	1,467	2,261	1,532	2,115	604	7,979	(1,008)	(449)	(1,331)	(1,807)	924	(3,671)	
Tunnels	m ²	1,360	1,766	3,242	351	820	7,539	1,360	1,766	3,292	1,059	756	8,233			(50)	(708)	64	(694)	
Culverts	m ²	333	591	726	219	134	2,003	261	773	593	399	329	2,355		72	(182)	133	(180)	(195)	(352)
Footbridges	m ²	424	472	562	152	1,045	2,655	503	421	921	209	705	2,759		(79)	51	(359)	(57)	340	(104)
Coastal & Estuary Defences	m	330	700	200	246	210	1,686	330	700	1,088	3,558	210	5,886			(888)	(3,312)			(4,200)
Retaining Walls	m ²	75	697	1,622	204	2,537	5,135	432	133	1,682	333	2,979	5,559		(357)	564	(60)	(129)	(442)	(424)
Earthworks	5-chain	727	729	769	711	630	3,566	430	439	485	457	436	2,247		297	290	284	254	194	1,319
Track Drainage																				
Renewal	lm		2,080	11,930	5,349	4,981	24,340								2,080	11,930	5,349	4,981	24,340	
Refurbishment	lm			130	1,805	3,177	6,753	11,865							130	1,805	3,177	6,753	11,865	
New Build	lm					1,455	1,455	3					3		(3)			1,455	1,452	
EW Drainage																				
Renewal	lm	10	585	1,074	163	10	1,843	1,483	1,480	1,470	1,460	1,450	7,343	(1,473)	(895)	(396)	(1,297)	(1,440)	(5,501)	
Refurbishment	lm	210	12	7,152	4,574	5,525	17,473	340	335	330	325	320	1,650	(130)	(323)	6,822	4,249	5,205	15,823	
Maintenance	lm	277	1,395	353		28,816	30,841	2,916	2,906	2,896	2,886	2,876	14,480	(2,639)	(1,511)	(2,543)	(2,886)	25,940	16,361	
New Build	lm	1,697	190				1,887							1,697	190				1,887	
Franchised Stations																				
Footbridges	m ²		303	291	301	40	935	276	672	416	658	260	2,282		(276)	(369)	(125)	(357)	(220)	(1,347)
Train Sheds	m ²	460	4,800			1,350	6,610	584	2,300	2,300			5,184	(124)	2,500	(2,300)		1,350	1,426	
Canopies	m ²	5,339	3,230	4,900		13,090	26,559	8,673	229	1,720	13	13	10,648	(3,334)	3,001	3,180	(13)	13,077	15,911	
Platforms	m ²	2,580	815	1,195	42	675	5,307	2,434	1,900	1,990	2,627	1,690	10,641		146	(1,085)	(795)	(2,585)	(1,015)	(5,334)
Buildings	m ²					1,344	1,344	553	573	733	2,185	233	4,277	(553)	(573)	(733)	(2,185)	1,111	(2,933)	
Lifts & Escalators	No.							67	67	67	67	67	335		(67)	(67)	(67)	(67)	(335)	
Managed Stations																				
Footbridges	m ²																			
Train Sheds	m ²								80	26,000	450		26,530		(80)	(26,000)	(450)		(26,530)	
Canopies	m ²									24			24				(24)		(24)	
Platforms	m ²								110				110				(110)		(110)	
Buildings	m ²	280	809			1,089		320	265	22		175	782		(40)	544	(22)	(175)	307	
Lifts & Escalators	No.							7	7	7	7	7	35		(7)	(7)	(7)	(7)	(35)	
Light Maintenance Depots																				
Buildings	m ²	11				11		899			450		1,349		(888)			(450)	(1,338)	
Depot Shed	m ²	8,433		1,200		9,633		433					433		8,000		1,200		9,200	
Lineside Buildings																				
Buildings	m ²		1,440			1,440		265	265	265	265	265	1,325		(265)	1,175	(265)	(265)	(265)	115
MDU																				
Buildings	m ²	3,750				3,750		56	56	56	56	56	280		3,694	(56)	(56)	(56)	(56)	3,470

Table 59 Scotland: signalling renewal volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP												
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Full Conventional Resignalling	SEUs	4			47	334	385	4			219	328	551	(0)		(219)	(281)	334	(166)	
ERTMS Resignalling	SEUs																			
Partial Conventional Resignalling	SEUs			18	104	188	310			31		157	142	330			(31)	18	(52)	46
Targeted Component Renewal	SEUs			8		11	19			4	8	26	1	7	46		(4)	(0)	(26)	10
Modular Resignalling	SEUs											113		113						(113)
Level Crossing Renewals	No.	5		1	2	5	13	4		3	11		3	21		1	(3)	(10)	2	2
																				(8)

Table 60 Scotland: elec'n and plant renewal volumes

		BP18					Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Contact Systems																				
Overhead Line Equipment (OLE) Re-wiring	wire runs	37	25	37		8	107	1	1	1	1		4	36	24	36	(1)	8	103	
Mid-life Refurbishment	wire runs																			
Structure Renewals	No.							3	3	5	4		15		(3)	(3)	(5)	(4)	(15)	
Conductor rail																				
Renewals	km																			
AC distribution																				
HV Switchgear Renewal	No.					62	62											62	62	
Booster Transformers	No.							2	2	1	1		6		(2)	(2)	(1)	(1)	(6)	
DC distribution																				
HV Switchgear Renewal	No.																			
HV Cables	km																			
LV Switchgear Renewal	No.																			
LV Cables	km																			
Transformer Rectifiers	No.																			
Fixed plant																				
Signalling Power Cable Renewal	km			8	57	85	150	27	27	28	40	31	153		(27)	(27)	(20)	17	54	(4)
Principle Supply Point Renewal	No.	10	3	3	2	5	23								10	3	3	2	5	23
Rail Heating																				
Points Heating Renewal	Point End							3	5	4		12			(3)	(5)	(4)		(12)	

Table 61 Scotland: telecoms renewal volumes

	BP18	Delivery Plan (mar 2014)					BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Station Information and Surveillance Systems													
Customer Information Systems	No.							14	6	60	80		(14)
Public Address	No.	511			862	1,373		1,410	43	630	12	2,095	(899)
CCTV	No.	54				54		20			20		34
Clocks	No.									13	13		(13)
Operational Comms													
PABX Concentrator	No. of Lines			1,321	631	1,952		629	82	182	700	1,593	(629)
Processor Controlled Concentrator	No. of Lines							1			1		(1)
Driver-Only Operation: CCTV	No.	8	3	17		28		11	10	7	28		(3)
Driver-Only Operation: Mirrors	No.							7			7		(7)
Public Emergency Telephone System	No.							3			3		(3)
Human Machine Interface Large	No.												
Human Machine Interface Small	No.				5	5							5
Radio System	No.		73			73						73	
Power Systems	No.	46			46			1			1		45
													45

Table 62 Scotland: maintenance volumes

		Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Track	Plain Line Tamping (km)	Km	MNT004	726	562	414	352	443	2,496	612	612	612	612	612	3,058	114	(49)	(198)	(260)	(169)	(561)
	Plain Line Stoneblowing (km)	Km	MNT005	248	249	239	232	293	1,260	382	382	382	382	382	1,910	(134)	(133)	(143)	(150)	(89)	(649)
	Manual Wet Bed Removal	Bay	MNT006	1,307	1,064	1,353	891	735	5,350	1,998	2,004	2,016	2,040	2,043	10,101	(691)	(940)	(663)	(1,149)	(1,308)	(4,752)
	Mechanical Wet Bed Removal	Bay	MNT012	1,072	981	1,118	982	1,285	5,438	692	696	704	717	728	3,538	380	285	415	265	557	1,901
	S&C Tamping	Point End	MNT007	320	264	211	231	254	1,280	399	399	399	399	399	1,996	(79)	(135)	(188)	(168)	(145)	(716)
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	1,530	1,867	2,019	1,750	1,882	9,048	2,682	2,728	2,773	2,808	2,847	13,838	(1,152)	(861)	(754)	(1,058)	(965)	(4,790)
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	9,740	12,848	11,633	8,977	13,400	56,598	11,705	11,906	12,092	12,251	12,446	60,400	(1,965)	942	(459)	(3,274)	954	(3,802)
	Mechanical Reprofiling of Ballast	Mile	MNT017	1,796	96	518	109	144	2,663	179	182	184	188	191	924	1,616	(86)	334	(80)	(47)	1,738
	Manual Reprofiling of Ballast	Rail Yards	MNT020	95,960	116,606	115,825	107,474	119,000	554,865	121,551	122,688	123,932	126,907	128,053	623,131	(25,591)	(6,082)	(8,107)	(19,433)	(9,053)	(68,266)
	Replacement of Pads & Insulators	Sleeper	MNT029	47,210	99,676	110,723	101,220	57,768	416,596	88,000	88,000	88,000	88,000	88,000	440,000	(40,790)	11,676	22,723	13,220	(30,233)	(23,404)
	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	81,135	68,361	72,344	52,914	62,785	337,540	91,045	91,817	87,809	88,916	89,195	448,781	(9,910)	(23,456)	(15,464)	(36,002)	(26,410)	(111,241)
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	100,883	79,931	81,204	73,984	79,825	415,828	45,000	45,000	45,000	45,000	45,000	225,000	55,883	34,931	36,204	28,984	34,825	190,828
	S&C Renew Crossing	Crossing	MNT120	70	72	49	48	62	301	76	75	72	73	74	371	(6)	(3)	(23)	(25)	(12)	(70)
	S&C Maintenance	Point End	MNT122	77,036	78,393	95,325	89,679	86,529	426,963	34,843	34,015	32,712	33,718	33,936	169,224	42,193	44,378	62,613	55,961	52,593	257,739
	S&C Renew Half Set of Switches	H/S Switch	MNT123	26	73	60	57	73	289	79	79	76	78	80	393	(53)	(6)	(16)	(21)	(7)	(104)
	S&C Stoneblowing	Point End	MNT124			19	26	35	80	69	69	69	69	69	347	(69)	(69)	(50)	(43)	(34)	(267)
	Rail Grinding Plain Line	Miles	MNT309	71	1,696	56	23	74	1,920	1,256	1,256	1,256	1,256	1,256	6,280	(1,185)	440	(1,200)	(1,233)	(1,182)	(4,360)
	Rail Grinding S&C	Point End	MNT310	212	248	104	101	89	754	216	216	216	216	216	1,080	(4)	32	(112)	(115)	(127)	(326)
	Fences & Boundary Walls	Yard	MNT072	112,843	110,329	398,935	191,234	99,135	912,476	189,756	189,574	189,361	189,101	189,020	946,811	(76,913)	(79,245)	209,575	2,133	(89,885)	(34,335)
	Drainage	Yard	MNT073	69,957	80,682	62,060	97,127	82,596	392,421	151,906	151,754	151,595	151,395	151,422	758,072	(81,949)	(71,073)	(89,535)	(54,268)	(68,826)	(365,651)
	Level Crossing Management - Off Track	Each	MNT075	2,164	3,320	12,295	9,854	6,528	34,160	2,849	2,849	2,849	2,849	2,849	14,245	(685)	471	9,446	7,005	3,679	19,915
	Vegetation Removal of Boundary Trees	Number	MNT081	6,154	5,483	698	1	14,970	27,306	13,147	13,136	13,126	13,110	13,110	65,631	(6,993)	(7,653)	(12,428)	(13,109)	1,860	(38,325)
	Vegetation Management by Train	Mile	MNT082	1	4				5	1,178	1,177	1,176	1,175	1,175	5,882	(1,177)	(1,173)	(1,176)	(1,175)	(1,175)	(5,877)
	Vegetation Management (manual)	Square Yard	MNT170	468,389	445,614	110,905	80,644		1,105,552	171,300	171,156	171,025	170,819	170,815	855,114	297,089	274,458	(60,120)	(90,175)	(170,815)	250,438
	Vegetation Management (mechanised)	Mile	MNT171	207	390				597	26	26	26	26	26	131	180	364			544	
	Vegetation Management (mechanised)	Square Metre	MNT171			469,784	1,188,345	1,111,289	2,769,418												
Electrical Power	Maintain Conductor Rail	Various	MNT206	1,213	2,102	1,546	1,430	1,058	7,348							1,213	2,102	1,546	1,430	1,058	7,348
	Maintain DC Traction Power Supplies	Each	MNT209	19,591	21,876	39,540	52,829	10,677	144,513	42,000	44,751	47,502	47,502	53,867	235,622	(22,409)	(22,875)	(7,962)	5,327	(43,190)	(91,110)
	Maintain OHL Components	Various	MNT211	6,394	7,278	8,467	7,029	9,146	38,314	8,546	8,546	8,546	8,546	8,546	42,732	(2,152)	(1,269)	(79)	(1,517)	600	(4,418)
	Maintain Points Heating	Each	MNT212	4,569	3,473	4,063	4,148	6,990	23,243	6,316	6,316	6,316	6,316	6,316	31,578	(1,747)	(2,843)	(2,253)	(2,168)	674	(8,336)
	Maintain Signalling Power Supplies	No.	MNT213	10,535	10,974	10,443	10,115	11,093	53,160	11,414	11,030	9,400	10,384	10,943	53,171	(879)	(56)	1,043	(269)	150	(11)
	Visual Examinations	No.	MNT226a	8,833	9,052	8,690	285	286	27,146	9,084	9,084	9,084	9,084	9,084	45,420	(251)	(32)	(394)	(8,799)	(8,798)	(18,274)
	Tunnel Examinations	Number minor elements	MNT220	1,301	1,530	3,308	2,202	1,735	10,076	1,767	1,655	3,285	2,301	1,742	10,750	(466)	(125)	23	(99)	(7)	(674)
	Detailed Examinations	No.	MNT221	94	153	106	236	198	787	152	82	93	152	82	561	(58)	71	13	84	116	226
	Underwater Examinations	No.	MNT222	199	161	407	849	834	2,450	246	203	243	210	214	1,116	(47)	(42)	164	639	620	1,334
	Ancillary Structure Examinations	Number detailed	MNT223	92	148	138	199	165	742	197	150	150	150	150	797	(105)	(2)	(12)	49	15	(55)
Buildings	Hidden Critical Element Examinations	No.	MNT224	111	261	278	368	380	1,398	1,410	1,287	1,173	1,699	1,604	7,173	(1,299)	(1,026)	(895)	(1,331)	(1,224)	(5,775)
	Load Carrying Assessments	Number spans	MNT225	352	1,447	998	332		3,129	1,319	1,214	1,048	1,056	1,251	5,888	(967)	233	(50)	(724)	(1,251)	(2,759)
	Visual Examinations	Each	MNT226	182	847	679	73		1,781	338	480	713	737	414	2,682	(156)	367	(34)	(664)	(414)	(901)

Table 63 Anglia: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	4.66	4.09	3.82	2.86	5.49	5.49	5.49	5.49	5.49	5.49	5.49	0.83	1.40	1.67	2.63	-
	Track geometry (Poor Track Geometry)	2.16%	2.46%	2.93%	3.32%	2.71%	2.71%	2.71%	2.71%	2.71%	2.71%	2.71%	1%	0%	0%	-1%	
	Track failures (service affecting)	730	730	743	677	695	779	740	723	705	688	670	10	(8)	(38)	11	(25)
Signalling	Signalling failures (service affecting)	1,261	1,369	1,289	1,342	1,243	1,395	1,375	1,363	1,351	1,339	1,327	114	(6)	62	(3)	84
Telecoms	Telecoms failures (service affecting)	497	330	303	291	310	421	193	183	167	162	160	(304)	(147)	(136)	(129)	(150)
Electrical Power	AC traction power failures (service affecting)	262	193	184	189	230	294	375	375	375	375	375	113	182	191	186	145
	DC traction power failures (service affecting)	2	1	1	5	3	2	4	4	4	4	4	2	3	3	(1)	1
	Non traction operational power supply failures (service affecting)	21	21	34	40	76	50	50	50	50	50	50	29	29	16	10	(26)
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	490	402	481	502	510	767	793	793	793	793	793	303	391	312	291	283
Structures	Number of open faults with a risk score ≥12	80	81	87	91	95	143	80	75	70	65	60	-	(6)	(17)	(26)	(35)
Earthworks	Earthwork failures	3	4	4	4	2	5	5	4	4	4	4	2	0	0	0	2
Points	Points failures (service affecting)	283	321	305	258	280	359	330	332	334	337	340	47	11	29	79	60

Table 64 Anglia: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	50.8%	51.6%	52.1%	52.3%	51.3%	46.9%	47.5%	47.0%	45.9%	47.2%	49.0%	-3.3%	-4.7%	-6.2%	-5.0%	-2.3%
	Track - Used Life - Switch & Crossings	57.9%	57.1%	58.7%	58.5%	54.8%	58.1%	57.1%	55.8%	55.1%	54.7%	54.5%	-0.8%	-1.3%	-3.6%	-3.7%	-0.3%
	Track - Used Life - Sleepers	63.8%	65.0%	63.9%	64.3%	63.6%	62.3%	63.3%	62.1%	60.4%	61.6%	63.3%	-0.5%	-3.0%	-3.5%	-2.7%	-0.3%
	Track - Used Life - Ballast	49.5%	47.7%	48.2%	49.2%	45.6%	48.5%	46.4%	44.6%	45.0%	45.5%	46.9%	-3.2%	-3.0%	-3.2%	-3.7%	1.3%
Signalling	Signalling Condition Index (SICA Remaining Life)	15.54	17.13	15.40	14.40	15.07	12.94	12.02	11.91	11.94	11.95	11.61	3.52	5.22	3.46	2.45	3.46
Telecoms	Telecoms - Remaining Life	58.3%	57.7%	54.6%	51.8%	54.9%	59.2%	56.0%	52.6%	51.0%	45.8%	43.0%	2.3%	5.1%	3.6%	6.1%	11.9%
Electrical Power	EP - Remaining Life - Conductor Rail	51.5%	51.0%	51.0%	50.2%	48.6%	51.8%	50.8%	50.3%	49.6%	48.8%	48.1%	0.7%	0.7%	1.4%	1.4%	0.5%
	EP - Remaining Life - Overhead Line Equipment (OLE)	50.1%	51.1%	51.1%	52.1%	52.7%	50.9%	50.0%	50.8%	48.8%	49.0%	52.4%	0.1%	0.3%	2.3%	3.1%	0.3%
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	48.9%	48.1%	48.2%	47.7%	46.1%	38.0%	38.0%	36.7%	36.0%	35.4%	34.7%	10.9%	11.4%	12.2%	12.3%	11.4%
	Light Maintenance Depot (LMD) - %age Remaining Life	48.1%	54.9%	42.6%	38.9%	49.8%	29.6%	29.5%	29.3%	29.2%	29.1%	29.0%	18.7%	25.5%	13.4%	9.8%	20.8%
Structures	Structures - PLBE Condition Banding	70.0	70.2	69.5	69.2	70.1	70.2	70.3	70.3	70.4	70.5	70.5	(0.24)	(0.14)	(0.92)	(1.26)	(0.42)
	Tunnel Condition Monitoring Index (TCMI)	84.6	85.4	79.8	79.8	86.0	82.8	82.6	82.5	82.4	82.2	82.1	2.00	2.90	(2.63)	(2.45)	3.88
Earthworks	Earthworks - Condition Banding	1.62	1.71	1.58	1.60	1.71	1.68	1.69	1.70	1.72	1.73	1.74	0.07	(0.01)	0.14	0.13	0.03
Drainage	Track Drainage - Condition Banding	1.43	2.42	1.47	1.37	2.30	2.50	2.46	2.42	2.38	2.34	2.30	1.03	-	0.91	0.97	-
	Earthwork/Structure Drainage - Condition Banding	1.42	2.22	1.67	1.58	2.10	2.30	2.26	2.22	2.18	2.14	2.10	0.84	-	0.51	0.56	-

Table 65 Anglia: track renewal volumes total

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CPS	2014/15	2015/16	2016/17	2017/18	2018/19	CPS	2014/15	2015/16	2016/17	2017/18	2018/19	CPS
Plain Line																			
Conventional																			
Steel Relay	Track km	2	(1)	2	7	2	12	18	18	16	15	15	82	2	(1)	2	7	2	13
Complete Renewal	Track km	12	14	14	10	3	52	4	4	1		3	12	(6)	(4)	(2)	(5)	(12)	(26)
Complete (formation)	Track km	1	2	1	4	0	9	27	17	9	9	3	65	(3)	(2)	(0)	4	(2)	(2)
Rail Renewal	Track km	20	25	10	11	2	68	3	1	1	1	1	5	(7)	8	1	2	(1)	(2)
Single Rail	Track km	0	0	0	0	0	1							(3)	(0)	(0)	(0)	(0)	(4)
High Output																			
Automated Ballast Cleaning (ABC)	Track km							14	19		4	37		(14)	(19)		(4)		8
Rail Sleeper Relay	Track km			30	17	10	57			81		81				(51)	17	10	(30)
Heavy Refurbishment	Track km	17	63	31	1	18	128		66	49	25	19	159		17	(3)	(19)	(24)	(1)
Refurbishment																			
Heavy Refurbishment	Track km	10	8	3	1	0	22	1	1	1	1	1	3	9	8	3	0	(0)	24
Medium (concrete)	Track km			5	16	4	25	9	9	8	8	2	35	(9)	(4)	8	(4)	(2)	(11)
Medium (other)	Track km					0	0	6	6	3	3	1	19	(6)	(6)	(3)	(3)	(1)	(19)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends			1		9	27	37	12	18	10	4	44	(12)	(17)	(10)	5	27	(18)
Full Renewal	Point Ends	35	20	16	23	25	119	47	39	38	40	28	192	(12)	(19)	(22)	(17)	(3)	(62)
Refurbishment																			
Heavy	Point Ends	29	12		7		48	23	34	34	31	31	153	6	(22)	(34)	(24)	(31)	(100)
Medium	Point Ends	8	19	17	12		56	50	55	55	55	55	270	(42)	(36)	(38)	(43)	(55)	(211)
Off Track																			
Fencing	m	116	40	9	24	8	196	52	48	47	46	45	237	64	(8)	(38)	(22)	(37)	(27)
Slab track	Track km																		

Table 66: Anglia track renewal volumes (route criticality 1)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CPS	2014/15	2015/16	2016/17	2017/18	2018/19	CPS	2014/15	2015/16	2016/17	2017/18	2018/19	CPS
Plain Line																			
Conventional																			
Steel Relay	Track km	3	4	3	3	1	13	8	7	7	8	8	38	(5)	(3)	(4)	(4)	(8)	(22)
Complete Renewal	Track km	0	2	0	2	0	4	2	2	1		1	7	(2)	(0)	(1)	2	(1)	(3)
Complete (formation)	Track km													0	2	(1)	(1)	(1)	(1)
Rail Renewal	Track km	0	2	1	1	0	4			2	2	1	5						
Single Rail	Track km	0	0	0	0	0	0	3					3	(3)	0	0	0	0	(3)
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		29
Rail Sleeper Relay	Track km			3			3										3		3
Heavy Refurbishment	Track km			5	0	2	8										5	0	2
Refurbishment																			
Heavy Refurbishment	Track km																		1
Medium (concrete)	Track km	1	2	1	0	4		2	2	1	1	0	5	(2)	(1)	1	(0)	(0)	(2)
Medium (other)	Track km																		
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends				0	1	2			2			2		(2)		0	1	(2)
Full Renewal	Point Ends	8	8	7	12	35		10	9	10	11	8	47	(10)	(1)	(2)	(4)	4	(14)
Refurbishment																			
Heavy	Point Ends	4		3		7		8	12	13	11	11	55	(8)	(8)	(13)	(9)	(11)	(47)
Medium	Point Ends	5	4	3		12		14	14	14	14	14	70	(14)	(9)	(10)	(11)	(14)	(57)
Off Track																			
Slab track	Track km												1		1		(1)		-1

Table 67: Anglia track renewal volumes (route criticality 2)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km																			
Complete Renewal	Track km	5	0	0	1	0	6	7	6	7	5	6	31	(2)	(6)	(7)	(4)	(6)	(24)	
Complete (formation)	Track km	0		0	0	0	1	2	1			1	4	(2)	(1)	0	0	(1)	(2)	
Rail Renewal	Track km	17	5	2	2	0	25	7	3	1	1		12	10	2	1	1	0	12	
Single Rail	Track km			0	0	0		1	1	1	1	1	2	(0)	(0)	(0)	(1)	(2)		
High Output																				
Automated Ballast Cleaning (ABC)	Track km							14	19			4	37	(14)	(19)			(4)	(37)	
Rail Sleeper Relay	Track km			18	11	10	38			81			81			(63)	11	10	(44)	
Heavy Refurbishment	Track km	17	63	22	0		102		38	49	15	13	115	17	25	(28)	(14)	(13)	(13)	
Refurbishment																				
Heavy Refurbishment	Track km	10	(0)				10							10	(0)				10	
Medium (concrete)	Track km		2	8	2	0	12	4	4	4	4	1	17	(4)	(2)	4	(2)	(1)	(5)	
Medium (other)	Track km																			
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends				2	6	7		5	4			9			(5)	(4)	2	6	(9)
Full Renewal	Point Ends	17		4	6	12	39	26	23	21	21	14	105	(9)	(23)	(17)	(14)	(2)	(65)	
Refurbishment																				
Heavy	Point Ends	29	3		2		34	6	10	9	9	9	42	23	(6)	(9)	(7)	(9)	(6)	
Medium	Point Ends	8	5	5	3		22	15	15	15	16	16	77	(7)	(10)	(10)	(13)	(16)	(54)	
Off Track																				
Slab track	Track km																			

Table 68: Anglia track renewal volumes (route criticality 3)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km	1	(0)		3		5										1	(0)	3	3
Complete Renewal	Track km	0	2	2	0	(0)	4		1							1	(1)	2	0	(0)
Complete (formation)	Track km			0	1		1										0	1		2
Rail Renewal	Track km	3	9	3	2	0	17	8	8	3	3	1	23		(5)	1	(0)	(1)	(1)	
Single Rail	Track km			0			0										0			0
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			0
Rail Sleeper Relay	Track km			4	3		7										4	3		4
Heavy Refurbishment	Track km				0	(0)	(0)			10	2		12					(10)	(2)	(12)
Refurbishment																				
Heavy Refurbishment	Track km			0			0										0			1
Medium (concrete)	Track km	1	4	1	0		6	2	2	2	2	1	9		(2)	(1)	2	(1)	(1)	(3)
Medium (other)	Track km																			
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends				1	4	5		2	2	2		6			(2)	(2)	(1)	4	(6)
Full Renewal	Point Ends	13		2	2	0	18	5	4	4	5	3	22		8	(4)	(2)	(2)	(3)	(5)
Refurbishment																				
Heavy	Point Ends			0		0	1	1	1	1	1	1	6		(1)	(1)	(1)	(1)	(1)	(5)
Medium	Point Ends	2	2	1			4	5	5	5	5	5	25		(5)	(3)	(3)	(4)	(5)	(20)
Off Track																				
Slab track	Track km																			

Table 69: Anglia track renewal volumes (route criticality 4)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km			1	1		2										1	1	2
Complete Renewal	Track km	4	4	9	5	2	24	2	1	1	1	1	7	2	3	8	4	1	19
Complete (formation)	Track km	0	1	1	1		3		1				1	0	(0)	1	1		2
Rail Renewal	Track km	0	9	4	6	1	20	10	6	3	3	1	23	(10)	3	1	3	0	(7)
Single Rail	Track km	(0)	(0)	0	0		0							(0)	(0)	0	0		0
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		16
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km			3	0	15	19		28		4		32		(28)	3	0	11	(29)
Refurbishment																			
Heavy Refurbishment	Track km	0	3	1	0	0	4	0	0	0	0	0	1	(0)	3	1	0	(0)	5
Medium (concrete)	Track km		1	2	0	0	3	1	1	1	1	0	4	(1)	(0)	1	(1)	(0)	(1)
Medium (other)	Track km				0		0	3	3	2	2	1	11	(3)	(3)	(2)	(2)	(1)	(11)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends				1	4	5		2	2	2		6		(2)	(2)	(1)	4	(6)
Full Renewal	Point Ends	5		2	7	0	15	5	3	3	4	3	18	(0)	(3)	(1)	4	(2)	(4)
Refurbishment																			
Heavy	Point Ends		4		2		6	8	11	11	10	10	50	(8)	(7)	(11)	(8)	(10)	(42)
Medium	Point Ends	4	3	2		9	11	11	11	10	10	10	53	(11)	(7)	(8)	(8)	(10)	(43)
Off Track																			
Slab track	Track km																		

Table 70: Anglia track renewal volumes (route criticality 5)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km	1	(1)	0	3	2	5								1	(1)	0	3	2	7
Complete Renewal	Track km	0	3	1	0	0	4			3	1	1		6	0	(0)	(0)	(1)	0	(1)
Complete (formation)	Track km																			
Rail Renewal	Track km	0	1	1	1	0	2			2				2	(2)	1	1	1	0	1
Single Rail	Track km		(0)				(0)									(0)				0
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			
Rail Sleeper Relay	Track km			6	3		9										6	3		9
Heavy Refurbishment	Track km																			
Refurbishment																				
Heavy Refurbishment	Track km	0	6	2	0		8	1	1	0	0	0		2	(0)	5	1	0	(0)	8
Medium (concrete)	Track km																			
Medium (other)	Track km					0	0	3	3	1	1	0		8	(3)	(3)	(1)	(1)	(0)	(8)
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends		1		4	13	18		12	7	2			21	(12)	(6)	(2)	4	13	5
Full Renewal	Point Ends		12				12										12			26
Refurbishment																				
Heavy	Point Ends																			
Medium	Point Ends	3	3	2		8		5	10	10	10	10		45	(5)	(7)	(7)	(8)	(10)	(37)
Off Track																				
Slab track	Track km																			

Table 71 Anglia: buildings and civils volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP											
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Structures																			
Underbridges	m ²	4,257	8,082	2,648	1,911	717	17,615	3,092	8,174	6,789	1,374	2,485	21,914	1,165	(92)	(4,141)	537	(1,768)	(4,299)
Overbridges (incl BG3)	m ²	1,413	915	405	1,050	130	3,913	722	870	1,370	1,258	272	4,492	691	45	(965)	(208)	(142)	(579)
Tunnels	m ²		50			17	67	600	900	2,100			3,600	(550)	(900)	(2,100)	17	(3,533)	
Culverts	m ²	996	355	101	87	272	1,811	98	98	1,545	1,545	1,369	4,655	898	257	(1,444)	(1,458)	(1,098)	(2,845)
Footbridges	m ²	178	43	551	207	23	1,001	288	288	180	180	180	1,116	(110)	(245)	371	27	(157)	(115)
Coastal & Estuary Defences	m																		
Retaining Walls	m ²	173		53	22	76	324	160	160	480	480	320	1,600	13	(160)	(427)	(458)	(245)	(1,277)
Earthworks	5-chain	208	191	20	26	12	457	211	205	165	266	204	1,051	(3)	(14)	(145)	(240)	(192)	(594)
Track Drainage																			
Renewal	lm		78	1,426	317		1,821	1,254	364	275	110	69	2,072	(1,254)	(286)	1,151	207	(69)	(251)
Refurbishment	lm		360				360	104	16	41	92	254		360	(104)	(16)	(41)	(92)	106
New Build	lm		9				9	26	16	15	7	7	73	(26)	(7)	(15)	(7)	(7)	(64)
EW Drainage																			
Renewal	lm							760	708	478	325	163	2,433	(760)	(708)	(478)	(325)	(163)	(2,433)
Refurbishment	lm	491	96				587	180	195	135	455	240	1,205	311	(99)	(135)	(455)	(240)	(618)
Maintenance	lm	227	50				277	760	200	40	778	673	2,450	(533)	(150)	(40)	(778)	(673)	(2,173)
New Build	lm	2,104	10		214		2,328	19	19	19	19	19	95	2,085	(9)	(19)	195	(19)	2,233
Franchised Stations																			
Footbridges	m ²	41			45	41	127	656					656	(615)		45	41		(529)
Train Sheds	m ²																		
Canopies	m ²			11	270	281		150	291				441	(150)	(291)	11	270		(160)
Platforms	m ²				47		47	2,763	3,365	381	1,158	2,126	9,793	(2,763)	(3,365)	(381)	(1,111)	(2,126)	(9,746)
Buildings	m ²		1,317		756	58	2,131	401	200	88	703		1,392	(401)	1,117	(88)	53	58	739
Lifts & Escalators	No.								4	3			7		(4)	(3)		(7)	
Managed Stations																			
Footbridges	m ²																		
Train Sheds	m ²																		
Canopies	m ²																		
Platforms	m ²																		
Buildings	m ²	66			102		168	1,095	5,100		20,663		26,858	(1,029)	(5,100)		(20,561)		(26,690)
Lifts & Escalators	No.											6	6			(6)	(6)		
Light Maintenance Depots																			
Buildings	m ²		828	7,070	6,260	7,100	21,258	1,101	1	1	1	1	1,105	(1,101)	827	7,069	6,259	7,099	20,153
Depot Shed	m ²																		
Lineside Buildings																			
Buildings	m ²				6,600		6,600							225					
MDU																			
Buildings	m ²		375	225	12,501	16,063	29,164								375	225	12,501	16,063	29,164

Table 72 Anglia: signalling renewal volumes

	SEUs	BP18					Delivery Plan (mar 2014)					BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Full Conventional Resignalling	SEUs			1			1			11	43	45	99				(10)	(43)	(98)
ERTMS Resignalling	SEUs																		
Partial Conventional Resignalling	SEUs									119	42	20	182				(119)	(42)	(20)
Targeted Component Renewal	SEUs	7	2			8		1	12	9	13	35		7	1	(12)	(9)	(13)	(27)
Modular Resignalling	SEUs							154			22	176				(154)		(22)	(176)
Level Crossing Renewals	No.			1	3	2	6		11	30	30	7	78			(10)	(30)	(27)	(5)
																			(72)

Table 73 Anglia: elec'n and plant renewal volumes

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Contact Systems																			
Overhead Line Equipment (OLE) Re-wiring	wire runs	16	12	6	27	28	89	10	22	53	40	26	151	6	(10)	(47)	(13)	2	(62)
Mid-life Refurbishment	wire runs																		
Structure Renewals	No.	78	115	174	223	273	863	100	141	108	47	83	479	(22)	(26)	66	176	190	384
Conductor rail																			
Renewals	km																		
AC distribution																			
HV Switchgear Renewal	No.													5	5	10		(5)	(5)
Booster Transformers	No.													3	3	3	4	16	(10)
(3)	(3)	(3)	(3)	(3)	(3)	(4)	(4)	(16)											
DC distribution																			
HV Switchgear Renewal	No.																		
HV Cables	km	4					4												4
LV Switchgear Renewal	No.																		
LV Cables	km																		
Transformer Rectifiers	No.																		
Fixed plant																			
Signalling Power Cable Renewal	km													18	18	18	18	18	88
Principle Supply Point Renewal	No.	2			7	1	10							9	7		1	17	(18)
(7)	(7)	(7)																	(18)
Rail Heating																			
Points Heating Renewal	Point End	32					32							9	28	9		46	(18)
23	(28)	(9)																	(14)

Table 74 Anglia: telecoms renewal volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP				
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19
Station Information and Surveillance Systems												
Customer Information Systems	No.											
Public Address	No.											
CCTV	No.							350		350		
Clocks	No.										(350)	(350)
Operational Comms												
PABX Concentrator	No. of Lines				1,525	1,525		1,300		1,300		
Processor Controlled Concentrator	No. of Lines										(1,300)	1,525
Driver-Only Operation: CCTV	No.	9	32	33		74		67		38	105	(22)
Driver-Only Operation: Mirrors	No.							26		26		(26)
Public Emergency Telephone System	No.								15	15		(15)
Human Machine Interface Large	No.						5			5		(5)
Human Machine Interface Small	No.					5						5
Radio System	No.								22	22		(22)
Power Systems	No.											(22)

Table 75 Anglia: maintenance volumes

		Code	BP18							
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5		
Plain Line Tamping (km)	Km	MNT004	1,014	887	3,471	480	481	6,334		
Plain Line Stoneblowing (km)	Km	MNT005	240	115	501	130	158	1,144		
Manual Wet Bed Removal	Bay	MNT006	2,326	1,544	1,118	1,481	1,540	8,009		
Mechanical Wet Bed Removal	Bay	MNT012	580	324	43	22	399	1,368		
S&C Tamping	Point End	MNT007	126	146	195	127	189	782		
Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	2,211	2,270	2,706	1,706	2,478	11,371		
Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	11,363	11,127	11,999	9,502	12,889	56,879		
Mechanical Reprofiling of Ballast	Mile	MNT017	248	74	62	100	123	607		
Manual Reprofiling of Ballast	Rail Yards	MNT020	345,677	227,550	204,494	281,633	135,040	1,194,393		
Replacement of Pads & Insulators	Sleeper	MNT029	36,195	49,111	47,102	50,890	55,379	238,677		
Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	129,686	135,304	175,523	177,590	145,915	764,018		
Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	29,033	42,587	58,757	58,022	55,106	243,505		
S&C Renew Crossing	Crossing	MNT120	52	80	66	70	70	338		
S&C Maintenance	Point End	MNT122	35,409	35,583	38,769	36,645	35,871	182,276		
S&C Renew Half Set of Switches	H/S Switch	MNT123	49	48	47	52	50	246		
S&C Stoneblowing	Point End	MNT124	43	31	62	58	146	340		
Rail Grinding Plain Line	Miles	MNT309	1,680	994	1,028	1,107	4,809			
Rail Grinding S&C	Point End	MNT310	278	208	243	423	1,152			
Fences & Boundary Walls	Yard	MNT072	35,402	46,378	31,444	43,711	36,365	193,299		
Drainage	Yard	MNT073	50,144	145,105	119,378	114,186	88,900	517,712		
Level Crossing Management - Off Track	Each	MNT075	3,753	557	22,592	28,868	5,429	61,199		
Vegetation Removal of Boundary Trees	Number	MNT081	8,147	2,981	166		489,019	500,313		
Vegetation Management by Train	Mile	MNT082	11	2	964			977		
Vegetation Management (manual)	Square Yard	MNT170	1,588,841	1,461,396	926,896	995,108		4,972,240		
Vegetation Management (mechanised)	Mile	MNT171	725	216				941		
Vegetation Management (mechanised)	Square Metre	MNT171			7,253,197	7,070,435	2,795,948	17,119,580		
Maintain Conductor Rail	Various	MNT206			8	1	18	5	32	
Maintain DC Traction Power Supplies	Each	MNT209			2,242	2,362	2,559	1,165	1,462	9,790
Maintain OHL Components	Various	MNT211			90,016	58,592	54,758	53,405	137,672	394,444
Maintain Points Heating	Each	MNT212			13,264	12,805	13,038	12,253	11,044	62,404
Maintain Signalling Power Supplies	No.	MNT213			2,212	3,119	2,769	2,803	4,510	15,413
Visual Examinations	No.	MNT226a			3,963	3,513	3,477	4,030	50	15,033
Tunnel Examinations	No. minor elements	MNT220			1,418	813	13	39	44	2,327
Detailed Examinations	No.	MNT221			663	647	450	831	742	3,333
Underwater Examinations	No.	MNT222			335	76	67	200	69	747
Ancillary Structure Examinations	No. detailed	MNT223			10	132	167	94	517	920
Hidden Critical Element Examinations	No.	MNT224			56	6				62
Load Carrying Assessments	No. spans	MNT225			700	94	125	17	94	1,030
Visual Examinations	Each	MNT226			751	74	46	39	4,171	5,081
5 Yearly Examinations	Each	MNT227			122	33	65	26	24	270

			Delivery Plan (mar 2014)							BP18 vs DP					
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5		2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line Tamping (km)	Km	MNT004	669	650	631	612	593	3,154		345	238	2,840	(132)	(112)	3,180
Plain Line Stoneblowing (km)	Km	MNT005	319	299	280	261	241	1,400		(79)	(184)	221	(131)	(84)	(256)
Manual Wet Bed Removal	Bay	MNT006	582	531	480	428	377	2,398		1,744	1,013	639	1,053	1,163	5,612
Mechanical Wet Bed Removal	Bay	MNT012	895	744	593	441	290	2,963		(315)	(420)	(550)	(419)	109	(1,595)
S&C Tamping	Point End	MNT007	219	208	196	185	173	980		(93)	(62)	(1)	(58)	16	(198)
Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	755	662	568	475	381	2,840		1,456	1,609	2,138	1,232	2,097	8,531
Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	3,988	3,516	3,044	2,571	2,099	15,218		7,375	7,611	8,955	6,930	10,790	41,662
Mechanical Reprofiling of Ballast	Mile	MNT017	151	144	137	130	123	687		97	(70)	(75)	(31)	(0)	(79)
Manual Reprofiling of Ballast	Rail Yards	MNT020	55,224	52,942	50,659	48,377	46,094	253,295		290,453	174,609	153,835	233,256	88,946	941,098
Replacement of Pads & Insulators	Sleeper	MNT029	58,849	55,755	52,660	49,566	46,471	263,300		(22,654)	(6,643)	(5,558)	1,325	8,908	(24,623)
Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	56,495	49,974	43,454	36,933	30,412	217,268		73,191	85,330	132,069	140,657	115,503	546,750
Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	18,682	16,911	15,140	13,369	11,599	75,701		10,351	25,676	43,617	44,653	43,507	167,804
S&C Renew Crossing	Crossing	MNT120	30	27	25	22	19	123		22	53	42	48	51	216
S&C Maintenance	Point End	MNT122	31,347	31,347	31,347	31,346	31,346	156,733		4,062	4,236	7,422	5,299	4,525	25,544
S&C Renew Half Set of Switches	H/S Switch	MNT123	39	34	29	24	19	145		10	14	18	28	31	101
S&C Stoneblowing	Point End	MNT124	119	111	103	94	86	513		(76)	(80)	(40)	(36)	60	(173)
Rail Grinding Plain Line	Miles	MNT309	849	915	1,095	945	885	4,689		(849)	765	(101)	83	222	120
Rail Grinding S&C	Point End	MNT310	415	762	762	762	762	3,463		(415)	(484)	(554)	(519)	(339)	(2,311)
Fences & Boundary Walls	Yard	MNT072	23,393	23,407	23,422	23,436	23,450	117,108		12,009	22,970	8,023	20,275	12,915	76,192
Drainage	Yard	MNT073	145,084	145,084	145,084	145,084	145,084	725,420		(94,940)	21	(25,707)	(30,898)	(56,184)	(207,708)
Level Crossing Management - Off Track	Each	MNT075	1,118	1,118	1,118	1,118	1,118	5,590		2,635	(561)	21,474	27,750	4,311	55,609
Vegetation Removal of Boundary Trees	Number	MNT081	1,417	1,230	1,044	858	672	5,221		6,730	1,751	(878)	(858)	488,347	495,092
Vegetation Management by Train	Mile	MNT082	1,273	1,273	1,273	1,273	1,273	6,365		(1,262)	(1,271)	(309)	(1,273)	(1,273)	(5,388)
Vegetation Management (manual)	Square Yard	MNT170	160,127	161,132	162,137	163,142	164,147	810,685		1,428,714	1,300,264	764,759	831,966	(164,147)	4,161,555
Vegetation Management (mechanised)	Mile	MNT171	329	329	329	329	329	1,645		396	(113)				283
Maintain Conductor Rail	Various	MNT206	40	40	40	40	40	200		(40)	(32)	(39)	(22)	(35)	(168)
Maintain DC Traction Power Supplies	Each	MNT209	35	35	35	35	35	175		2,207	2,327	2,524	1,130	1,427	9,615
Maintain OHL Components	Various	MNT211	32,400	32,400	32,400	32,400	32,400	161,999		57,616	26,192	22,359	21,006	105,272	232,445
Maintain Points Heating	Each	MNT212	14,454	14,454	14,454	14,454	14,454	72,270		(1,190)	(1,649)	(1,416)	(2,201)	(3,410)	(9,866)
Maintain Signalling Power Supplies	No.	MNT213	1,542	1,542	1,542	1,542	1,542	7,711		670	1,577	1,227	1,261	2,967	7,702
Visual Examinations	No.	MNT226a	3,461	3,561	3,589	3,593	3,556	17,761		502	(48)	(112)	437	(3,506)	(2,728)
Tunnel Examinations	No. minor elements	MNT220	1,641	1,641	1,641	1,641	1,641	8,205		(223)	(828)	(1,628)	(1,602)	(1,597)	(5,878)
Detailed Examinations	No.	MNT221	696	624	580	559	634	3,093		(33)	23	(130)	272	108	240
Underwater Examinations	No.	MNT222	265	130	88	284	132	899		70	(54)	(21)	(84)	(63)	(152)
Ancillary Structure Examinations	No. detailed	MNT223	9	158	130	73	61	431		1	(26)	37	21	456	489
Hidden Critical Element Examinations	No.	MNT224	76	43	64	86	53	322		(20)	(37)	(64)	(86)	(53)	(260)
Load Carrying Assessments	No. spans	MNT225	1,161	821	1,126	1,431	1,253	5,792		(461)	(727)	(1,001)	(1,414)	(1,159)	(4,762)
Visual Examinations	Each	MNT226	789	834	816	846	843	4,128		(38)	(760)	(770)	(807)	3,328	953
5 Yearly Examinations	Each	MNT227	136	91	109	79	93	508		(14)	(58)	(44)	(53)	(69)	(238)

Table 76 East Midlands: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	2.75	2.46	1.72	0.97	3.78	3.78	3.78	3.78	3.78	3.78	3.78	1.03	1.32	2.06	2.81	-
	Track geometry (Poor Track Geometry)	1.71%	1.73%	1.46%	1.51%	2.20%	2.03%	2.20%	2.20%	2.20%	2.20%	2.20%	0.49%	0.47%	0.74%	0.69%	
	Track failures (service affecting)	426	352	376	296	391	420	385	377	371	368	365	(41)	25	(5)	72	(27)
Signalling	Signalling failures (service affecting)	782	725	758	632	723	738	644	629	620	614	610	(138)	(96)	(138)	(18)	(113)
Telecoms	Telecoms failures (service affecting)	125	92	87	70	82	85	85	69	58	47	44	(40)	(23)	(29)	(23)	(39)
Electrical Power	AC traction power failures (service affecting)	54	38	35	38	35	65	124	149	153	154	149	70	111	118	116	115
	DC traction power failures (service affecting)																
	Non traction operational power supply failures (service affecting)	10	9	23	16	14	35	39	40	39	38	37	29	31	16	22	23
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	193	140	159	137	172	240	240	240	240	240	240	47	100	81	103	68
Structures	Number of open faults with a risk score ≥12	150	110	104	83	134	276	273	270	205	140	88	123	160	101	57	(46)
Earthworks	Earthwork failures	1	1	3	3	2	1	1	1	1	1	1	0	(0)	(2)	(2)	(1)
Points	Points failures (service affecting)	192	119	156	119	162	214	190	188	186	184	182	(2)	69	30	65	20

Table 77 East Midlands: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	47.7%	46.9%	45.6%	46.1%	47.2%	52.1%	48.4%	48.7%	49.8%	50.0%	51.3%	0.7%	1.8%	4.2%	3.9%	4.1%
	Track - Used Life - Switch & Crossings	39.9%	39.1%	36.5%	36.0%	36.1%	45.7%	45.1%	44.3%	43.7%	42.9%	42.5%	5.2%	5.2%	7.2%	6.9%	6.4%
	Track - Used Life - Sleepers	54.5%	54.9%	54.4%	55.6%	56.3%	60.7%	57.9%	59.1%	60.7%	60.3%	62.1%	3.4%	4.2%	6.3%	4.7%	5.7%
	Track - Used Life - Ballast	43.9%	44.0%	44.6%	45.6%	44.0%	45.2%	46.7%	48.1%	47.3%	45.9%	47.6%	2.8%	4.1%	2.7%	0.3%	3.6%
Signalling	Signalling Condition Index (SICA Remaining Life)	14.02	14.39	15.20	14.90	12.77	15.08	14.49	13.83	13.49	15.21	14.43	(0.46)	0.56	1.71	(0.31)	(1.65)
Telecoms	Telecoms - Remaining Life	67.7%	59.9%	53.3%	50.6%	51.2%	65.1%	66.7%	62.1%	57.4%	55.5%	50.9%	1.0%	-2.2%	-4.1%	-4.9%	0.4%
Electrical Power	EP - Remaining Life - Conductor Rail												-4.0%	-4.1%	-6.3%	-10.6%	-12.0%
	EP - Remaining Life - Overhead Line Equipment (OLE)	52.3%	54.0%	52.8%	49.9%	49.8%	55.5%	56.3%	58.1%	59.1%	60.5%	61.8%					
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	64.0%	65.9%	66.6%	68.0%	61.1%	46.6%	46.6%	44.1%	42.9%	41.6%	40.4%	17.4%	21.8%	23.7%	26.4%	20.7%
	Light Maintenance Depot (LMD) - %age Remaining Life	65.8%	64.0%	64.2%	66.8%	59.7%	58.5%	57.6%	56.8%	56.0%	55.1%	54.3%	8.1%	7.2%	8.2%	11.7%	5.4%
Structures	Structures - PLBE Condition Banding	63.3	63.4	64.0	64.0	62.8	63.5	63.5	63.5	63.6	63.8	63.9	(0.2)	(0.1)	0.4	0.2	(1.1)
	Tunnel Condition Monitoring Index (TCMI)	90.7	90.3	89.9	88.5	93.9	82.9	83.5	84.1	84.7	85.3	85.9	7.2	6.2	5.2	3.2	8.0
Earthworks	Earthworks - Condition Banding	1.35	1.36	1.36	1.34	1.40	1.69	1.69	1.69	1.69	1.68	1.68	0.34	0.33	0.33	0.34	0.28
Drainage	Track Drainage - Condition Banding	1.23	1.26	1.26	1.33	1.29	1.23	1.20	1.30	1.30	1.30	1.29	(0.03)	0.04	0.04	(0.03)	(0.00)
	Earthwork/Structure Drainage - Condition Banding	1.23	1.25	1.25	1.23	1.29	1.23	1.20	1.30	1.30	1.30	1.29	(0.03)	0.05	0.05	0.07	(0.00)

Table 78 East Midlands: track renewal volumes total

		BP18						Delivery Plan (mar 2014)						BP18 vs DP								
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5			
Plain Line																						
Conventional																						
Steel Relay	Track km	2	1	1		13	18										2	1	1	13	18	
Complete Renewal	Track km	9	6	11	3	3	32	5	8	6	3	1	24				3	(2)	4	1	2	8
Complete (formation)	Track km	1	2	1	7	1	13	3	3	1	2	2	12				(2)	(1)	(0)	5	(1)	1
Rail Renewal	Track km	24	48	24	26	18	140	29	29	16	17	15	106				(5)	19	9	9	3	34
Single Rail	Track km			1	2	4	7										1	2	4	7		
High Output																						
Automated Ballast Cleaning (ABC)	Track km																					
Rail Sleeper Relay	Track km	71	12	1	0		84	88														
Heavy Refurbishment	Track km			25	0	0	25										(17)	12	1	0	(4)	
Refurbishment																						
Heavy Refurbishment	Track km	1	3	2	1	7	14	0	1	5	3	3	12				1	3	(3)	(2)	4	2
Medium (concrete)	Track km	4	9	3			16	7	8	9	8	2	34				(3)	2	(6)	(8)	(2)	(17)
Medium (other)	Track km	7	7	2	8	6	30	8	10	7	13	15	54				(1)	(3)	(5)	(5)	(9)	(23)
Switches & Crossings																						
S&C delivered																						
Abandonment	Point Ends	6	8				14	2		9	4	4	19				4	8	(9)	(4)	(4)	(5)
Full Renewal	Point Ends	26	14	25	6	26	98	21	14	21	21	24	101				5		4	(15)	2	(3)
Refurbishment																						
Heavy	Point Ends	26	21	15	6	32	100	14	25	9	21	15	84				12	(4)	6	(15)	17	16
Medium	Point Ends	32	56	54	36	20	198	35	54	29	24	19	161				(3)	2	25	12	1	37
Off Track																						
Fencing	m	12	20	20	4	1	57	28	36	46	50	46	206				(16)	(16)	(26)	(46)	(45)	(149)
Slab track	Track km						1						1							(1)	1	0

Table 79: East Midlands track renewal volumes (route criticality 1)

(Route Criticality 1)		BP18					Delivery Plan (Mar 2014)					BP18 vs DP								
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km																			
Complete Renewal	Track km	0	1		0	1		2	4	5	2	1	14		(2)	(3)	(5)	(2)	(1)	(13)
Complete (formation)	Track km	0	0	2		3			1	1	1	1	5			(0)	(1)	2	(1)	(2)
Rail Renewal	Track km	1	12	6	6	4	29	5	4	5	9	2	26		(5)	7	1	(2)	1	3
Single Rail	Track km																			
High Output																				
Automated Ballast Cleaning (ABC)	Track km												14		14			(14)		(14)
Rail Sleeper Relay	Track km												31		31		(31)		(31)	
Heavy Refurbishment	Track km					0	0						1		1			(1)	(0)	(1)
Refurbishment																				
Heavy Refurbishment	Track km	2	1	1	5	8		0	0	4	1	1	7		(0)	1	(3)	(0)	3	1
Medium (concrete)	Track km	3	1			4			1	3	6		10			2	(2)	(6)		(6)
Medium (other)	Track km	0	0	0	0	1			2				2		(2)	0	0	0		(1)
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends								2		4		6		(2)		(4)			(6)
Full Renewal	Point Ends			1		9	10		21	6		15	42		(21)	(6)	1	(6)	(32)	
Refurbishment																				
Heavy	Point Ends	3	6	4	2	9	24		5	8		11	24		(2)	(2)	4	2	(2)	0
Medium	Point Ends	6	16	15	10	6	53		14	28		4	46		(8)	(12)	15	10	2	7
Off Track																				
Slab track	Track km					1	1				1		1				(1)		1	

**Table 80: East Midlands track renewal volumes
(route criticality 2)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	8	5	9	3	3	27	3	4	1	1	0	10	4	0	8	2	2	17
Complete (formation)	Track km	1	1	1	3			1	2		1	0	5	(0)	(1)	1	2	(0)	1
Rail Renewal	Track km	19	19	10	11	7	65	22	9	0	2	10	43	(2)	10	9	9	(4)	22
Single Rail	Track km																		
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km	29	5	0			33	57					33	(33)					(33)
Heavy Refurbishment	Track km						8						57	(28)	5	0			(24)
Refurbishment																			
Heavy Refurbishment	Track km						1						1	(0)	0	(0)	0	0	0
Medium (concrete)	Track km	2	3	1			6	2	1	4	2	2	12	(0)	2	(3)	(2)	(2)	(5)
Medium (other)	Track km	3	1	0	2	1	7	1	1	0	2	4	8	2	(0)	(0)	(0)	(3)	(1)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends						6						1						5
Full Renewal	Point Ends	26	14	8			17	66	8	21	21	9	59	26	6	(13)	(21)	8	7
Refurbishment																			
Heavy	Point Ends	8	11	8	3	16	45	3	5	9	21	4	42	5	6	(2)	(18)	12	3
Medium	Point Ends	20	25	24	16	9	94	16	11	24	12	9	72	4	14	0	4	(0)	22
Off Track																			
Slab track	Track km																		

**Table 81: East Midlands track renewal volumes
(route criticality 3)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km	2	1	1		8	13								2	1	1	8	13	
Complete Renewal	Track km	0	1	1	1	0	2								(0)	1	1	1	0	2
Complete (formation)	Track km		1	0	1	1	2								1	0	1	1	2	
Rail Renewal	Track km	0	1	1	0	0	2								0	1	(0)	0	0	1
Single Rail	Track km			1	2	4	7								1	2	4		7	
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			
Rail Sleeper Relay	Track km	42	8	1	0		51								42	8	1	0	51	
Heavy Refurbishment	Track km			16			16									16			16	
Refurbishment																				
Heavy Refurbishment	Track km	0	0	0	1	1	1								0	(0)	0	1	1	
Medium (concrete)	Track km	0	0				0								1		(1)	0	0	(1)
Medium (other)	Track km	0	0	1	0	1									1	2	3	0	0	(1)
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	2				2										2			2	
Full Renewal	Point Ends		16	6		22										16	6		22	
Refurbishment																				
Heavy	Point Ends																			
Medium	Point Ends	1	1	1	0	3									1	2	3	0	1	(2)
Off Track																				
Slab track	Track km																			

**Table 82: East Midlands track renewal volumes
(route criticality 4)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	1		0														1	
Complete (formation)	Track km		0	0	0	1												0	
Rail Renewal	Track km	3	15	7	8	7	39		0	14	9	7	2	32			2	0	(2)
Single Rail	Track km																1	5	7
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km			1	0	0	1											(0)	(67)
Refurbishment																			
Heavy Refurbishment	Track km	1	1	1	0	0	3											1	1
Medium (concrete)	Track km	2	3	1			6		3	5	3			11			(1)	(2)	(2)
Medium (other)	Track km	1	4	1	5	4	15		4	6	7	8	7	31			(3)	(2)	(5)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	6					6										6	(4)	2
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends	15	2	1	1	3	21		6	1				7			9	1	1
Medium	Point Ends	6	5	4	3	2	19		5	2				13			1	3	4
Off Track																			
Slab track	Track km																		

**Table 83: East Midlands track renewal volumes
(route criticality 5)**

	BP18	Delivery Plan (mar 2014)						BP18 vs DP												
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km					5	5												5	5
Complete Renewal	Track km																			
Complete (formation)	Track km																			
Rail Renewal	Track km	2	2	1	1	1	5	2	1			1	4	0	1	1	1	(0)	2	
Single Rail	Track km																			
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			
Rail Sleeper Relay	Track km																			
Heavy Refurbishment	Track km																			
Refurbishment																				
Heavy Refurbishment	Track km	0	0	0	1	1	1					1	1	0	0	0	(0)	0	0	
Medium (concrete)	Track km																			
Medium (other)	Track km	3	1	0	1	1	6	3	0		2	3	9	1	0	(1)	(2)	(2)		
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends										4	4	8				(4)	(4)	(8)	
Full Renewal	Point Ends																			
Refurbishment																				
Heavy	Point Ends	3	2	1	4	10		11					11	(8)	2	1	4	(1)		
Medium	Point Ends	9	9	6	3	28		12	5	6	4	27		(3)	4	0	(1)	1		
Off Track																				
Slab track	Track km																			

Table 84 East Midlands: buildings and civils volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Structures																			
Underbridges	m ²	165	8,409	10,685	458	4,455	24,172	10,648	9,895	8,980	10,448	7,529	47,501	(10,483)	(1,486)	1,705	(9,990)	(3,074)	(23,329)
Overbridges (incl BG3)	m ²	143	1,177	1,427	-36		2,711	601	2,482	1,541	252	1,404	6,280	(458)	(1,305)	(114)	(288)	(1,404)	(3,569)
Tunnels	m ²	400	17,189	447	437	7,750	26,223	1,240	6,200	2,515	4,840	3,765	18,560	(840)	10,989	(2,068)	(4,403)	3,985	7,663
Culverts	m ²			564	242	65	871		38	153	75	75	341		(38)	411	167	(10)	530
Footbridges	m ²	35	339	185	178	75	812	160	298	64	149	44	716	(125)	41	121	29	31	96
Coastal & Estuary Defences	m																		
Retaining Walls	m ²		230	46	275		551		220				220		10	46	275		331
Earthworks	5-chain	3	11	145	663	105	927	182	177	198	252	218	1,025	(179)	(166)	(53)	411	(113)	(98)
Track Drainage																			
Renewal	lm			53		2,327	2,380								53		2,327	2,380	
Refurbishment	lm			2,304		200	2,504								2,304		200	2,504	
New Build	lm			175			175								175			175	
EW Drainage																			
Renewal	lm	1		37		38		295	330	295	203	63	1,186	(294)	(330)	(258)	(203)	(63)	(1,148)
Refurbishment	lm	10		62		72		61	35	225	410	280	1,011	(51)	(35)	(163)	(410)	(280)	(939)
Maintenance	lm							6,089	5,917	5,797	6,079	6,099	29,980	(6,089)	(5,917)	(5,797)	(6,079)	(6,099)	(29,980)
New Build	lm			20		20									20			20	
Franchised Stations																			
Footbridges	m ²							80	145	230	45		500	(80)	(145)	(230)	(45)		(500)
Train Sheds	m ²																		
Canopies	m ²	608		585		1,193		840	528	600	40		2,008	(232)	(528)	(600)	545		(815)
Platforms	m ²	2,821				2,821			8,019	2,000	560	50	10,629	2,821	(8,019)	(2,000)	(560)	(50)	(7,808)
Buildings	m ²	1,124			20	1,144				100	1,201		1,301		1,024	(1,201)	20		(157)
Lifts & Escalators	No.										3		3			(3)		(3)	
Managed Stations																			
Footbridges	m ²																		
Train Sheds	m ²																		
Canopies	m ²																		
Platforms	m ²																		
Buildings	m ²																		
Lifts & Escalators	No.																		
Light Maintenance Depots																			
Buildings	m ²		12			12		5,000	5,000	3,000			13,000	(5,000)	(4,988)	(3,000)			(12,988)
Depot Shed	m ²	6,500	89	6,500		13,089								6,500	89	6,500			13,089
Lineside Buildings																			
Buildings	m ²			198		198		30	40	65			135	(30)	(40)	133			63
MDU																			
Buildings	m ²	850		754		1,604		160		200			360	690	754	(200)		1,244	

Table 85 East Midlands: signalling renewal volumes

	SEUs	BP18					Delivery Plan (mar 2014)					BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Full Conventional Resignalling	SEUs					241	241											241	241
ERTMS Resignalling	SEUs																		
Partial Conventional Resignalling	SEUs	8	0		1	9		112	97	1		210		(105)	(97)	(1)	1	(201)	
Targeted Component Renewal	SEUs	0	2		12	14		9	10	9	9	36		(8)	(8)	(9)	4	(22)	
Modular Resignalling	SEUs	19	38			57		31		51	100		182		(31)	19	(13)	(100)	(125)
Level Crossing Renewals	No.	4	7		1	12		9	3	10	12	1	35		(9)	1	(3)	(12)	(23)

Table 86 East Midlands: elec'n and plant renewal volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP					
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Contact Systems																		
Overhead Line Equipment (OLE) Re-wiring	wire runs																	
Mid-life Refurbishment	wire runs						56	56	56	40	40	248	(56)	(56)	(56)	(40)	(40)	(248)
Structure Renewals	No.		10		10		7	7	7	7	7	36	(7)	(7)	3	(7)	(7)	(26)
Conductor rail																		
Renewals	km																	
AC distribution																		
HV Switchgear Renewal	No.																	
Booster Transformers	No.						1	1	1	1	1	5	(1)	(1)	(1)	(1)	(1)	(5)
DC distribution																		
HV Switchgear Renewal	No.																	
HV Cables	km																	
LV Switchgear Renewal	No.																	
LV Cables	km																	
Transformer Rectifiers	No.																	
Fixed plant																		
Signalling Power Cable Renewal	km		2	14	16		10	10	10	10	10	48	(10)	(10)	(8)	4	(10)	(32)
Principle Supply Point Renewal	No.																	
Rail Heating																		
Points Heating Renewal	Point End			13	29	42	16	16	16	16	16	79	(16)	(16)	(16)	(3)	13	(37)

Table 87 East Midlands: telecoms renewal volumes

	BP18							Delivery Plan (mar 2014)					BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Station Information and Surveillance Systems																			
Customer Information Systems	No.	94	3			97					5	5		94	3			(5)	92
Public Address	No.	246	1			247				88		88		246	1	(88)			159
CCTV	No.		1			1			268	197		20	485			(267)	(197)	(20)	(484)
Clocks	No.								9			4	13			(9)		(4)	(13)
Operational Comms																			
PABX Concentrator	No. of Lines																		
Processor Controlled Concentrator	No. of Lines																		
Driver-Only Operation: CCTV	No.		0			0										0			0
Driver-Only Operation: Mirrors	No.																		
Public Emergency Telephone System	No.	4				4			5		8	13		4		(5)	(8)	(9)	
Human Machine Interface Large	No.																		
Human Machine Interface Small	No.																		
Radio System	No.																		
Power Systems	No.																		

Table 88 East Midlands: maintenance volumes

		Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Track	Plain Line Tamping (km)	Km	MNT004	581	632	667	385	795	3,060	425	410	390	390	410	2,025	156	222	277	(5)	385	1,035
	Plain Line Stoneblowing (km)	Km	MNT005	146	213	167	143	334	1,004	215	200	190	220	220	1,045	(69)	13	(23)	(77)	114	(41)
	Manual Wet Bed Removal	Bay	MNT006	1,443	2,921	3,850	1,638	2,904	12,756	1,450	1,300	1,250	1,150	1,000	6,150	(7)	1,621	2,600	488	1,904	6,606
	Mechanical Wet Bed Removal	Bay	MNT012	321	1,155	1,382	608	1,391	4,857	650	750	800	850	1,000	4,050	(329)	405	582	(242)	391	807
	S&C Tamping	Point End	MNT007	151	272	321	149	379	1,272	230	230	220	220	230	1,130	(79)	42	101	(71)	149	142
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	936	2,151	1,743	972	1,838	7,640	1,100	1,080	1,060	1,040	1,020	5,300	(164)	1,071	683	(68)	818	2,340
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	3,734	8,476	9,834	5,397	9,186	36,627	4,200	4,000	3,800	3,600	3,400	19,000	(466)	4,476	6,034	1,797	5,786	17,627
	Mechanical Reprofiling of Ballast	Mile	MNT017	116	202	304	174	384	1,180	300	200	165	165	165	995	(184)	2	139	9	219	185
	Manual Reprofiling of Ballast	Rail Yards	MNT020	127,942	306,358	232,232	181,886	137,474	985,891	110,000	110,000	110,000	110,000	110,000	550,000	17,942	196,358	122,232	71,886	27,474	435,891
	Replacement of Pads & Insulators	Sleeper	MNT029	22,574	150,347	63,477	28,670	65,013	330,080	15,000	15,000	15,000	15,000	15,000	75,000	7,574	135,347	48,477	13,670	50,013	255,080
	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	120,326	138,126	200,739	106,676	148,768	714,636	88,875	86,000	84,000	82,000	80,000	420,875	31,451	52,126	116,739	24,676	68,768	293,761
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	27,092	23,572	38,233	51,007	40,758	180,662	7,500	7,500	7,500	7,500	7,500	37,500	19,592	16,072	30,733	43,507	33,258	143,162
	S&C Renew Crossing	Crossing	MNT120	16	98	91	29	115	349	40	39	37	36	35	187	(24)	59	54	(7)	80	162
	S&C Maintenance	Point End	MNT122	18,005	35,898	64,402	20,152	38,029	176,485	25,000	25,000	25,000	25,000	25,000	125,000	(6,995)	10,898	39,402	(4,848)	13,029	51,485
	S&C Renew Half Set of Switches	H/S Switch	MNT123	16	58	76	36	71	257	35	34	33	32	30	164	(19)	24	43	4	41	93
	S&C Stoneblowing	Point End	MNT124	21	22	41	30	113	227	80	80	80	80	80	400	(59)	(59)	(39)	(50)	33	(173)
	Rail Grinding Plain Line	Miles	MNT309	749	1,072	671	733	1,797	5,022	795	920	745	1,245	920	4,625	(46)	152	(74)	(512)	877	397
	Rail Grinding S&C	Point End	MNT310	160	158	271	292	667	1,548	380	390	400	410	425	2,005	(220)	(232)	(129)	(118)	242	(457)
	Fences & Boundary Walls	Yard	MNT072	15,477	28,519	26,801	22,199	48,638	141,634	66,440	101,115	97,228	110,901	97,106	472,790	(50,963)	(72,596)	(70,427)	(88,702)	(48,468)	(331,156)
	Drainage	Yard	MNT073	12,301	24,346	10,866	20,054	58,083	125,650	40,000	40,000	40,000	40,000	40,000	200,000	(27,699)	(15,654)	(29,135)	(19,946)	18,083	(74,350)
	Level Crossing Management - Off Track	Each	MNT075	752	900	6,361	4,506	6,648	19,167	966	966	966	966	966	4,830	(214)	(66)	5,395	3,540	5,682	14,337
	Vegetation Removal of Boundary Trees	Number	MNT081	1,005	2,506	38			3,549	500	500	500	500	500	2,500	505	2,006	(462)	(500)	(500)	1,049
	Vegetation Management by Train	Mile	MNT082			78			78	1,500	1,500	1,500	1,500	1,500	7,500	(1,422)	(1,500)	(1,500)	(1,500)	(7,422)	
	Vegetation Management (manual)	Square Yard	MNT170	236,327	314,736	445,640	464,058	712,637	2,173,399	176,000	176,000	176,000	176,000	176,000	880,000	60,327	138,736	269,640	288,058	536,637	1,293,399
	Vegetation Management (mechanised)	Mile	MNT171	251	1,968				2,219	160	160	160	160	160	800	91	1,808			1,899	
	Vegetation Management (mechanised)	Square Metre	MNT171			1,528,602	806,605	4,459,722	6,794,928							2	459	45	1	507	
Off track	Maintain Conductor Rail	Various	MNT206	2	459	45	1		507							110	942	1,019	79	224	2,374
	Maintain DC Traction Power Supplies	Each	MNT209	110	942	1,019	79	224	2,374	5,708	5,708	5,708	5,708	5,708	28,540	(2,961)	71,399	74,310	(1,848)	20,736	161,636
	Maintain OHL Components	Various	MNT211	2,747	77,107	80,018	3,861	26,444	190,176	8,670	8,670	8,670	8,670	8,670	43,350	206	21,026	72,418	1,822	12,916	108,387
	Maintain Points Heating	Each	MNT212	8,876	29,696	81,088	10,492	21,586	151,737	1,542	1,542	1,542	1,542	1,542	7,710	(285)	3,355	5,652	2,455	1,497	12,674
	Maintain Signalling Power Supplies	No.	MNT213	1,257	4,897	7,194	3,997	3,039	20,384	2,545	2,672	2,619	2,643	2,645	13,124	(318)	(573)	828	536	2,708	3,181
	Visual Examinations	No.	MNT226a	2,227	2,099	3,447	3,179	5,353	16,305	7,804	7,804	7,804	7,804	7,804	39,021	804	(2,539)	(404)	(2,342)	32,665	28,183
	Tunnel Examinations	No. minor elements	MNT220	8,608	5,265	7,400	5,462	40,469	67,204	397	314	346	322	320	1,699	(73)	(80)	188	188	1,537	1,760
	Detailed Examinations	No.	MNT221	324	234	534	510	1,857	3,459	102	44	52	102	44	344	(56)	7	(4)	(61)	163	49
	Underwater Examinations	No.	MNT222	46	51	48	41	207	393	76	8	12	35	67	198	(39)	24	65	9	86	145
	Ancillary Structure Examinations	No. detailed	MNT223	37	32	77	44	153	343	44	44	44	44	44	220	(23)	(42)	(34)	(5)	(104)	
Buildings	Hidden Critical Element Examinations	No.	MNT224	44	21	2	10	39	116	550	363	481	568	585	2,547	(343)	(465)	(394)	18	(1,184)	
	Load Carrying Assessments	No. spans	MNT225	879	977	574	544	12,469	15,443	879	880	875	879	881	4,394	97	(301)	(335)	11,588	11,049	
	Visual Examinations	Each	MNT226	26	22	6	22	131	207	24	23	31	24	22	124	2	(1)	(25)	(2)	109	83
	5 Yearly Examinations	Each	MNT227																		

Table 89 Kent: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	3.09	2.63	1.15	2.40	4.30	4.57	4.53	4.47	4.42	4.36	4.30	1.44	1.84	3.27	1.96	-
	Track geometry (Poor Track Geometry)	3.22%	3.29%	3.53%	3.33%	3.41%	3.72%	3.55%	3.52%	3.48%	3.45%	3.41%	0.33%	0.23%	-0.05%	0.12%	-
	Track failures (service affecting)	388	293	267	359	234	451	384	378	372	366	360	(4)	85	105	7	126
Signalling	Signalling failures (service affecting)	1,062	1,248	1,004	923	1,006	1,137	1,182	1,174	1,168	1,171	1,165	120	(74)	164	248	159
Telecoms	Telecoms failures (service affecting)	536	308	318	217	306	54	115	105	92	88	87	(421)	(203)	(226)	(129)	(219)
Electrical Power	AC traction power failures (service affecting)	2	1	1	3	1	4	7	3	3	2	2	5	2	2	(1)	1
	DC traction power failures (service affecting)	47	57	54	98	56	58	65	65	63	62	57	18	8	9	(36)	1
	Non traction operational power supply failures (service affecting)	24	35	35	33	42	28	28	28	28	25	25	4	(7)	(7)	(8)	(17)
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	576	351	300	336	318	524	506	516	526	536	546	(70)	165	226	200	228
Structures	Number of open faults with a risk score ≥12	191	51	117	92	80	501	424	339	271	217	116	233	288	154	125	36
Earthworks	Earthwork failures	17	20	20	21	7	18	17	17	16	15	15	0	(3)	(4)	(6)	8
Points	Points failures (service affecting)	296	280	211	231	226	337	381	377	373	370	368	85	97	162	139	142

Table 90 Kent: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	53.9%	54.1%	55.3%	54.8%	53.0%	49.1%	49.0%	49.4%	49.9%	50.3%	51.0%	-4.9%	-4.7%	-5.4%	-4.5%	-2.0%
	Track - Used Life - Switch & Crossings	55.0%	52.5%	50.4%	50.3%	50.3%	56.3%	55.2%	54.4%	53.7%	54.5%	54.9%	0.2%	1.9%	3.3%	4.2%	4.5%
	Track - Used Life - Sleepers	65.9%	66.7%	67.6%	68.6%	65.6%	64.0%	64.4%	64.7%	64.8%	65.1%	65.5%	-1.5%	-2.0%	-2.8%	-3.5%	-0.1%
	Track - Used Life - Ballast	54.6%	55.3%	56.5%	57.3%	50.4%	51.9%	52.4%	51.9%	51.4%	50.9%	50.5%	-2.2%	-3.4%	-5.1%	-6.4%	0.1%
Signalling	Signalling Condition Index (SICA Remaining Life)	15.88	16.64	16.90	16.30	18.38	13.75	15.16	16.60	16.03	15.73	17.91	0.72	0.04	0.87	0.57	0.47
Telecoms	Telecoms - Remaining Life	56.6%	51.3%	35.9%	37.5%	50.6%	55.6%	55.3%	53.3%	52.0%	53.3%	53.3%	1.3%	-2.0%	-16.2%	-15.8%	-2.7%
Electrical Power	EP - Remaining Life - Conductor Rail	70.7%	70.1%	70.4%	69.7%	69.3%	70.1%	69.0%	68.4%	68.3%	67.8%	67.3%	1.7%	1.7%	2.1%	1.9%	2.0%
	EP - Remaining Life - Overhead Line Equipment (OLE)	71.8%	71.8%	70.5%	68.0%	65.9%	73.1%	71.8%	70.5%	68.0%	67.2%	65.9%	0.0%	1.3%	2.5%	0.8%	0.0%
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	47.3%	45.2%	45.2%	45.4%	51.7%	36.2%	36.2%	34.8%	34.0%	33.3%	32.6%	11.1%	10.4%	11.2%	12.1%	19.1%
	Light Maintenance Depot (LMD) - %age Remaining Life	40.7%	39.3%	44.0%	48.6%	33.4%	43.4%	42.5%	41.7%	40.9%	40.0%	39.2%	-1.8%	-2.4%	3.1%	8.6%	-5.8%
Structures	Structures - PLBE Condition Banding	68.1	68.1	68.5	68.6	67.8	67.9	68.5	68.8	68.9	69.0	69.0	(0.4)	(0.7)	(0.4)	(0.4)	(1.2)
	Tunnel Condition Monitoring Index (TCMI)	86.9	85.4	85.0	85.0	86.8	84.2	84.0	83.8	83.6	83.4	83.2	3.0	1.6	1.4	1.6	3.6
Earthworks	Earthworks - Condition Banding	1.78	1.81	1.85	1.86	1.81	1.78	1.79	1.79	1.80	1.80	1.81	0.00	(0.02)	(0.05)	(0.06)	-
Drainage	Track Drainage - Condition Banding	1.19	1.33	1.60	1.64	1.20	1.19	1.20	1.20	1.20	1.20	1.20	0.01	(0.13)	(0.40)	(0.44)	-
	Earthwork/Structure Drainage - Condition Banding	1.54	1.61	1.88	1.80	1.60	1.53	1.50	1.50	1.50	1.50	1.60	(0.04)	(0.11)	(0.38)	(0.30)	-

Table 91 Kent: track renewal volumes total

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km																			
Complete Renewal	Track km	9	12	17	9	9	56	18	12	13	11	10	64	(9)	0	4	(1)	(1)	(7)	
Complete (formation)	Track km		0	0	1	0	2	2	3		1		7	(2)	(3)	0	(0)	0	(5)	
Rail Renewal	Track km	20	27	19	27	23	116	30	21	18	20	15	105	(10)	6	1	7	8	12	
Single Rail	Track km	1	0	2		0	4	2	1		1		4	(0)	(1)	2	(1)	0	0	
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			
Rail Sleeper Relay	Track km																			
Heavy Refurbishment	Track km					3	3			53	45	45	143				(50)	(45)	(45)	(140)
Refurbishment																				
Heavy Refurbishment	Track km	4	5	3	4	4	20	11	11	11	4	4	40	(7)	(6)	(8)	(0)	(0)	(21)	
Medium (concrete)	Track km	10	16	6	7	24	63	14	9	12	12	12	57	(4)	7	(6)	(4)	12	6	
Medium (other)	Track km	1	2	2	3	0	8	2	1	4	4	4	15	(2)	1	(2)	(1)	(4)	(7)	
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	5	1	3			9	4		2			6	1	1	1			3	
Full Renewal	Point Ends	22	30	21	15	17	105	27	40	24	9	27	127	(5)	(10)	(3)	6	(10)	(22)	
Refurbishment																				
Heavy	Point Ends	4	23	12	24	21	84	32	20	29	25	20	126	(28)	3	(17)	(1)	1	(42)	
Medium	Point Ends	38	49	41	39	35	202	34	29	68	21	10	162	4	20	(27)	18	25	40	
Off Track																				
Fencing	m	13	41	37	9	16	116	31	67	21	21	11	150	(18)	(26)	16	(12)	6	(35)	
Slab track	Track km			0	0		0	0	0	0			1	(0)	(0)	(0)			(1)	

Table 92: Kent track renewal volumes (route criticality 1)

	BP18	Delivery Plan (mar 2014)						BP18 vs DP										
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19
Plain Line																		
Conventional																		
Steel Relay	Track km																	
Complete Renewal	Track km																	
Complete (formation)	Track km																	
Rail Renewal	Track km																	
Single Rail	Track km																	
High Output																		
Automated Ballast Cleaning (ABC)	Track km																	
Rail Sleeper Relay	Track km																	
Heavy Refurbishment	Track km																	
Refurbishment																		
Heavy Refurbishment	Track km																	
Medium (concrete)	Track km																	
Medium (other)	Track km																	
Switches & Crossings																		
S&C delivered																		
Abandonment	Point Ends																	
Full Renewal	Point Ends																	
Refurbishment																		
Heavy	Point Ends																	
Medium	Point Ends																	
Off Track																		
Slab track	Track km																	

Table 93: Kent track renewal volumes (route criticality 2)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	5	6	6	3	3	23	9	6	5	5	4	29	(4)	0	1	(2)	(0)	(6)
Complete (formation)	Track km				0	1		2	2				4	(2)	(2)	0	1		(4)
Rail Renewal	Track km	4	8	6	8	7	34	13	8	4	4	4	32	(9)	(0)	2	5	4	2
Single Rail	Track km			0	1			2	1				3	(2)	(1)	1		0	(1)
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km	0	1	1	1	1	4	4	3	1	1	1	10	(4)	(2)	(0)	(0)	0	(6)
Medium (concrete)	Track km	2	5	2	2	7	18	3	5	3	3	3	17	(1)	(1)	(1)	(1)	4	1
Medium (other)	Track km			0	0	1	0	0	0	1	1	1	3	(0)	0	(1)	(0)	(1)	(2)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	3	0				3	2					2	1	0				1
Full Renewal	Point Ends	14	6	0	0		21	22		4			26	(8)	6	(4)	0		(5)
Refurbishment																			
Heavy	Point Ends		1	1	2	1	5	4		2	2		8	(4)	1	(1)	(0)	1	(3)
Medium	Point Ends	4	10	8	8	7	36	2	8	14	5	3	32	2	2	(6)	3	4	4
Off Track																			
Slab track	Track km		0	0			0	0					0	(0)	0	0			(0)

Table 94: Kent track renewal volumes (route criticality 3)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	2	3	5	5	5	20	5	4	7	5	6	26	(3)	(1)	(2)	0	(0)	(6)
Complete (formation)	Track km					1	0	1			1		3		(1)		(1)	0	(2)
Rail Renewal	Track km	7	10	7	10	9	43	10	7	9	8	5	39	(3)	3	(2)	2	4	4
Single Rail	Track km	1					1							1					1
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km	2	1	1	1	0	4	2	4	1	1	1	9	(1)	(2)	(0)	(0)	(1)	(5)
Medium (concrete)	Track km	5	5	2	2	8	22	6	1	4	4	4	19	(1)	4	(2)	(2)	4	3
Medium (other)	Track km	1	1	1	0		3	2	0	1	1	1	5	(2)	1	(0)	0	(1)	(2)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends		0	3			3			2			2		0	1			1
Full Renewal	Point Ends	8	24	21	15	17	84	5	40	20	9	27	101	3	(16)	1	6	(10)	(17)
Refurbishment																			
Heavy	Point Ends	4	13	7	13	12	48	16	8	20	16	10	70	(12)	5	(13)	(3)	2	(22)
Medium	Point Ends	22	20	17	16	14	89	21	12	23	6	4	66	1	8	(6)	10	10	23
Off Track																			
Slab track	Track km		0	0			0	0	0				0	(0)	(0)	(0)			(0)

Table 95: Kent track renewal volumes (route criticality 4)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	2	2	5	0	0	11	3	1	1	1	1	7	(1)	1	4	(0)	(1)	3
Complete (formation)	Track km			0				0					0		0				0
Rail Renewal	Track km	9	9	6	9	7	39	8	5	6	8	7	34	2	3	(0)	1	(0)	6
Single Rail	Track km			0	0			0					0		0				0
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km			3		3			21	12	14	47				(18)	(12)	(14)	(44)
Refurbishment																			
Heavy Refurbishment	Track km	0	1	1	1	0	3	0	1	1	1	1	4	(0)	(0)	(0)	0	(1)	(1)
Medium (concrete)	Track km	2	5	2	2	7	17	5	1	4	4	4	17	(3)	3	(2)	(1)	3	1
Medium (other)	Track km	0	0	0	1	0	2	0	0	1	1	1	3	0	0	(1)	(0)	(1)	(2)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends																		
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends		8	4	9	8	29	12	12	7	7	7	45	(12)	(4)	(3)	2	1	(16)
Medium	Point Ends	8	13	11	11	10	53	8	8	19	6	3	44		5	(8)	5	7	9
Off Track																			
Slab track	Track km		0	0		0			0				0		(0)	0		(0)	

Table 96: Kent track renewal volumes (route criticality 5)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	0		1	1		2	1					1	(1)		1	1		1
Complete (formation)	Track km																		
Rail Renewal	Track km	0	0	0	0	0	1				1		1	(0)	0	0	(1)	0	(0)
Single Rail	Track km		0	1		0	1			1		1		0	1	(1)	0	(0)	
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km	2	2	1	1	2	8	4	3	8	1	1	17	(2)	(2)	(7)	0	1	(9)
Medium (concrete)	Track km	2	1	0	1	2	5	1	1	1	1	1	4	2	(0)	(1)	(0)	1	1
Medium (other)	Track km	0	1	1	1	0	2	0	0	1	1	1	4	0	0	(1)	(0)	(1)	(2)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	2	0				2	2					2	0					0
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends		1	0	1	1	2				3	3		1	0	1	(3)	(1)	
Medium	Point Ends	4	6	5	5	4	24	3	1	12	4		20	1	5	(7)	1	4	4
Off Track																			
Slab track	Track km																		

Table 97 Kent: buildings and civils volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Structures																			
Underbridges	m ²	1,899	4,737	6,441	1,085	508	14,670	22,252	7,457	12,005	9,112	4,120	54,945	(20,353)	(2,720)	(5,564)	(8,027)	(3,612)	(40,275)
Overbridges (incl BG3)	m ²	197	398	704		833	2,132	194	625	797	692	349	2,658	3	(227)	(93)	(692)	484	(526)
Tunnels	m ²		250	536	520		1,306	30,090	5,977	7,650	15,300	20,400	79,417	(30,090)	(5,727)	(7,115)	(14,780)	(20,400)	(78,112)
Culverts	m ²	57	419	579			1,055	59	59	59	59	59	295	(2)	360	520	(59)	(59)	760
Footbridges	m ²	134	18	189	648	684	1,673	203	237	338	1,930	207	2,916	(69)	(219)	(149)	(1,282)	477	(1,242)
Coastal & Estuary Defences	m	50	30	1,550			1,630	700	700	700	700	700	3,500	(650)	(670)	850	(700)	(700)	(1,870)
Retaining Walls	m ²				180		180	517	517	517	517	517	2,585	(517)	(517)	(337)	(517)	(517)	(2,405)
Earthworks	5-chain	55	226	125	54	19	479	156	121	133	168	139	715	(101)	105	(8)	(114)	(120)	(236)
Track Drainage																			
Renewal	lm	105	708	294	739	530	2,376	5,089	5,089	5,089	5,089	5,089	25,444	(4,984)	(4,381)	(4,795)	(4,350)	(4,559)	(23,068)
Refurbishment	lm			8,028	7,348	600	15,976	197	197	197	197	197	983	(197)	(197)	7,831	7,151	403	14,993
New Build	lm				882	405	1,287	682	682	682	682	682	3,411	(682)	(682)	(682)	200	(277)	(2,124)
EW Drainage																			
Renewal	lm	8	40	142	105		295	380	360	154	542	133	1,568	(372)	(320)	(12)	(437)	(133)	(1,273)
Refurbishment	lm	60		6,514	962	250	7,786	78	35	21	7	30	171	(18)	(35)	6,493	955	220	7,615
Maintenance	lm	798	5,726	726	110		7,360	651	651	651	651	688	3,292	147	5,075	75	(541)	(688)	4,069
New Build	lm	405	160	591		100	1,256							405	160	591		100	1,256
Franchised Stations																			
Footbridges	m ²	703	1,215	870	585		3,373	910	1,250	705	250	810	3,925	(207)	(35)	165	335	(810)	(552)
Train Sheds	m ²																		
Canopies	m ²	828	2,777	5,789	1,556	900	11,850	360	380		2,095	1,778	4,613	468	2,397	5,789	(539)	(878)	7,237
Platforms	m ²	8,122	4,506				12,628	2,929	4,184	2,135	3,215	4,950	17,413	5,193	322	(2,135)	(3,215)	(4,950)	(4,785)
Buildings	m ²	65	176	140	475		856	385		176	3,450	110	4,121	(320)	176	(36)	(2,975)	(110)	(3,265)
Lifts & Escalators	No.												2				(2)	(2)	
Managed Stations																			
Footbridges	m ²																		
Train Sheds	m ²																		
Canopies	m ²								5,380				5,380			(5,380)		(5,380)	
Platforms	m ²								700				700			(700)		(700)	
Buildings	m ²	126					126			75			75	126		(75)		51	
Lifts & Escalators	No.	3					3							3				3	
Light Maintenance Depots																			
Buildings	m ²	90					90							90				90	
Depot Shed	m ²																		
Lineside Buildings																			
Buildings	m ²	5,036	1,288	3,152	27	81	9,584	230	230	230	230	230	1,150	4,806	1,058	2,922	(203)	(149)	8,434
MDU														420					420
Buildings	m ²		420				420												

Table 98 Kent: signalling renewal volumes

	SEUs	BP18					Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Full Conventional Resignalling	SEUs		221		1		222			281			281			(60)		1	(59)	
ERTMS Resignalling	SEUs																			
Partial Conventional Resignalling	SEUs		20				20			22	47	68	93	230			(1)	(47)	(68)	(93)
Targeted Component Renewal	SEUs									49	2	8	16	19	94		(49)	(2)	(8)	(16)
Modular Resignalling	SEUs																		(94)	
Level Crossing Renewals	No.	1	6		2	9		2	15	5		1	23			(1)	(9)	(5)	1	
																			(14)	

Table 99 Kent: elec'n and plant renewal volumes

	BP18						Delivery Plan (mar 2014)					BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Contact Systems																		
Overhead Line Equipment (OLE) Re-wiring	wire runs																	
Mid-life Refurbishment	wire runs												1	1			(1)	(1)
Structure Renewals	No.																	
Conductor rail																		
Renewals	km	15	7			22	16	7	14	8	2	47	(16)	7	(7)	(8)	(2)	(25)
AC distribution																		
HV Switchgear Renewal	No.																	
Booster Transformers	No.																	
DC distribution																		
HV Switchgear Renewal	No.	3	9			12	2	6	3	9	3	23	(2)	(3)	6	(9)	(3)	(11)
HV Cables	km	6	7	0	0	13	18	18	8	18	18	81	(18)	(12)	(1)	(18)	(18)	(67)
LV Switchgear Renewal	No.	8	10	8		26	36	44	14	15		109	(28)	(34)	(6)	(15)		(83)
LV Cables	km	7	11	6	20	47	10	7	13	10	12	52	(4)	4	(7)	10	(8)	(5)
Transformer Rectifiers	No.	1				1	2	1	5			8	(1)	(1)	(5)			(7)
Fixed plant																		
Signalling Power Cable Renewal	km		1		1	2	9	3	4	3	3	22	(9)	(3)	(3)	(3)	(2)	(20)
Principle Supply Point Renewal	No.	53				53									53			53
Rail Heating																		
Points Heating Renewal	Point End		19	4	12	35	21		24	24	6	75	(21)		(5)	(20)	6	(40)

Table 100 Kent: telecoms renewal volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Station Information and Surveillance Systems																			
Customer Information Systems	No.				208	208	60	150	15	85	311		(60)	(150)	(15)	123	(103)		
Public Address	No.				1,510	1,510	1,562	973	904	849	4,288		(1,562)	(973)	(904)	661	(2,778)		
CCTV	No.				10	10	758	442	122	103	1,425		(758)	(442)	(122)	(93)	(1,415)		
Clocks	No.						3	6	3		12		(3)	(6)	(3)		(12)		
Operational Comms																			
PABX Concentrator	No. of Lines						230	137	185		552		(230)	(137)	(185)		(552)		
Processor Controlled Concentrator	No. of Lines						5				5		(5)				(5)		
Driver-Only Operation: CCTV	No.								64		64						(64)	(64)	
Driver-Only Operation: Mirrors	No.								11		11						(11)	(11)	
Public Emergency Telephone System	No.																		
Human Machine Interface Large	No.																		
Human Machine Interface Small	No.																		
Radio System	No.																		
Power Systems	No.											2		2		(2)		(2)	

Table 101 Kent: maintenance volumes

		Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Track	Plain Line Tamping (km)	Km	MNT004	436	315	512	349	340	1,952	460	459	455	454	452	2,280	(24)	(144)	57	(105)	(112)	(328)
	Plain Line Stoneblowing (km)	Km	MNT005	137	97	53	53	90	430	238	245	251	251	243	1,228	(101)	(148)	(198)	(198)	(153)	(798)
	Manual Wet Bed Removal	Bay	MNT006	1,572	1,174	1,166	1,345	633	5,890	856	833	812	780	757	4,038	716	341	354	565	(124)	1,852
	Mechanical Wet Bed Removal	Bay	MNT012	635	919	538	811	356	3,259	640	640	630	620	610	3,140	(5)	279	(92)	191	(254)	119
	S&C Tamping	Point End	MNT007	139	138	120	140	130	667	218	216	213	211	211	1,069	(79)	(78)	(93)	(71)	(81)	(402)
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	1,281	1,562	1,896	1,777	1,792	8,308	1,610	1,590	1,540	1,510	1,500	7,750	(329)	(28)	356	267	292	558
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	6,569	7,858	6,607	5,352	5,655	32,040	7,515	7,150	6,830	6,550	6,300	34,345	(946)	708	(223)	(1,198)	(645)	(2,305)
	Mechanical Reprofiling of Ballast	Mile	MNT017	19	30	7	2,273	20	2,349	89	103	119	134	149	594	(70)	(73)	(112)	2,139	(129)	1,755
	Manual Reprofiling of Ballast	Rail Yards	MNT020	167,578	214,261	210,951	157,850	156,825	907,465	284,000	277,000	275,000	268,000	267,000	1,371,000	(116,422)	(62,739)	(64,049)	(110,150)	(110,175)	(463,535)
	Replacement of Pads & Insulators	Sleeper	MNT029	23,574	63,863	32,930	22,740	16,073	159,180	10,400	9,900	9,900	9,900	9,900	50,000	13,174	53,963	23,030	12,840	6,173	109,180
Off track	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	134,330	97,554	113,636	117,613	89,374	552,508	94,584	92,334	87,184	83,334	80,484	437,920	39,746	5,220	26,452	34,279	8,890	114,588
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	4,162	5,679	3,262	7,556	3,357	24,016	5,600	5,350	4,500	4,450	4,100	24,000	(1,438)	329	(1,238)	3,106	(743)	16
	S&C Renew Crossing	Crossing	MNT120	66	92	64	51	40	313	70	65	61	60	59	315	(4)	27	3	(9)	(19)	(2)
	S&C Maintenance	Point End	MNT122	10,278	9,595	7,505	7,651	5,248	40,278	24,344	24,344	24,344	24,344	24,344	121,720	(14,066)	(14,749)	(16,839)	(16,693)	(19,096)	(81,442)
	S&C Renew Half Set of Switches	H/S Switch	MNT123	54	74	52	70	44	294	67	65	63	60	59	314	(13)	9	(11)	10	(15)	(20)
	S&C Stoneblowing	Point End	MNT124	6	9	10	16	41	82	46	50	50	54	56	256	(40)	(41)	(40)	(38)	(15)	(174)
	Rail Grinding Plain Line	Miles	MNT309	333	1,184		130	282	1,929	518	383	482	335	468	2,186	(185)	801	(482)	(205)	(186)	(257)
	Rail Grinding S&C	Point End	MNT310	147	172	131	33	190	673	180	180	240	240	240	1,080	(33)	(8)	(109)	(207)	(50)	(407)
	Fences & Boundary Walls	Yard	MNT072	19,955	22,174	49,728	28,168	20,800	140,825	24,449	24,449	24,269	24,269	24,269	121,705	(4,494)	(2,275)	25,459	3,899	(3,469)	19,120
	Drainage	Yard	MNT073	13,735	14,445	14,281	14,339	12,600	69,400	27,046	27,046	27,046	27,046	27,046	135,230	(13,311)	(12,601)	(12,765)	(12,707)	(14,446)	(65,830)
Electrical Power	Level Crossing Management - Off Track	Each	MNT075	586	546	5,378	4,846	3,037	14,393	730	730	730	730	730	3,650	(144)	(184)	4,648	4,116	2,307	10,743
	Vegetation Removal of Boundary Trees	Number	MNT081	817	1,101	1		24,300	26,219	1,636	1,688	1,788	1,888	1,988	8,988	(819)	(587)	(1,787)	(1,888)	22,312	17,231
	Vegetation Management by Train	Mile	MNT082			3,826			3,826	2,208	2,208	2,208	2,208	2,208	11,040	(2,208)	1,618	(2,208)	(2,208)	(2,208)	(7,214)
	Vegetation Management (manual)	Square Yard	MNT170	273,940	225,453	125,658	185,647		810,698	209,703	209,703	209,703	209,703	209,703	1,048,515	64,237	15,750	(84,045)	(24,056)	(209,703)	(237,817)
	Vegetation Management (mechanised)	Mile	MNT171			16			16	107	172	212	240	244	975	(107)	(156)				(263)
	Vegetation Management (mechanised)	Square Metre	MNT171			623,960	599,127	417,205	1,640,292												
	Maintain Conductor Rail	Various	MNT206	30,941	22,810	25,988	27,542	23,574	130,855	15,281	15,281	15,281	15,281	15,281	76,405	15,660	7,529	10,707	12,261	8,293	54,450
	Maintain DC Traction Power Supplies	Each	MNT209	5,591	6,134	8,831	5,625	4,536	30,717	4,575	4,631	4,663	4,663	4,663	23,195	1,016	1,503	4,168	962	(127)	7,522
	Maintain OHL Components	Various	MNT211	12	88	93	1,280	365	1,838	123	123	123	123	123	615	(111)	(35)	(30)	1,157	242	1,223
	Maintain Points Heating	Each	MNT212	9,465	9,340	9,304	9,571	12,537	50,217	7,753	7,753	7,753	7,753	7,753	38,765	1,712	1,587	1,551	1,818	4,784	11,452
Civils	Maintain Signalling Power Supplies	No.	MNT213	340	475	485	578	7,727	9,605	4,186	4,186	4,186	4,186	4,186	20,930	(3,846)	(3,711)	(3,701)	(3,608)	3,541	(11,325)
	Visual Examinations	No.	MNT226a	4,603	3,305	5,080	4,855	1,261	19,104	4,808	4,890	5,006	5,008	4,921	24,633	(205)	(1,585)	74	(153)	(3,660)	(5,529)
	Tunnel Examinations	No. minor elem.	MNT220	10,631	11,250	9,556	5,566	11,081	48,084	11,091	11,091	11,091	11,091	11,091	55,454	(460)	159	(1,535)	(5,525)	(10)	(7,370)
	Detailed Examinations	No.	MNT221	486	536	529	486	417	2,454	650	568	452	450	537	2,657	(164)	(32)	77	36	(120)	(203)
	Underwater Examinations	No.	MNT222	113	20	133	21	72	359	34	37	145	34	37	287	79	(17)	(12)	(13)	35	72
	Ancillary Structure Examinations	No. detailed	MNT223	6	26	223	209	83	547	13	31	280	193	50	567	(7)	(5)	(57)	16	33	(20)
	Hidden Critical Element Examinations	No.	MNT224	53	6	38	10	23	130	142	100	67	134	130	573	(89)	(94)	(29)	(124)	(107)	(443)
	Load Carrying Assessments	No. spans	MNT225	712	26	82	15	30	865	1,213	1,213	1,217	1,215	1,213	6,071	(501)	(1,187)	(1,135)	(1,200)	(1,183)	(5,206)
Buildings	Visual Examinations	Each	MNT226	1,102	1,150	141	1,016	4,918	8,327	162	168	172	151	165	818	940	982	(31)	865	4,753	7,509
	5 Yearly Examinations	Each	MNT227	30	26	32	4	52	144	57	43	37	31	40	208	(27)	(17)	(5)	(27)	12	(64)

Table 102 LNE: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	2.50	2.83	2.11	1.58	4.00	4.38	4.45	4.40	4.25	4.15	4.00	1.95	1.57	2.14	2.57	-
	Track geometry (Poor Track Geometry)	2.41%	2.19%	2.11%	2.23%	2.20%	2.52%	2.30%	2.30%	2.30%	2.20%	2.20%	-0.11%	0.11%	0.19%	-0.03%	-
	Track failures (service affecting)	1,499	1,374	1,276	1,216	1,213	1,509	1,205	1,193	1,181	1,172	1,166	(294)	(181)	(95)	(44)	(47)
Signalling	Signalling failures (service affecting)	3,349	2,935	2,961	2,790	2,844	3,405	3,001	2,972	2,954	2,923	2,908	(348)	37	(7)	133	64
Telecoms	Telecoms failures (service affecting)	392	487	342	312	303	262	356	310	274	239	230	(36)	(177)	(68)	(73)	(73)
Electrical Power	AC traction power failures (service affecting)	206	157	192	206	180	162	193	192	190	194	207	(13)	35	(2)	(12)	27
	DC traction power failures (service affecting)	5	14	10	18	12	16	8	8	8	8	8	3	(6)	(2)	(10)	(4)
	Non traction operational power supply failures (service affecting)	61	67	59	60	41	98	96	95	94	93	93	35	28	35	33	52
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	865	663	697	700	717	1,000	947	947	947	947	947	82	284	250	247	230
Structures	Number of open faults with a risk score ≥12	430	414	261	78	387	564	551	538	460	265	187	121	124	199	187	(200)
Earthworks	Earthwork failures	9	12	13	8	10	8	8	8	8	7	7	(1)	(4)	(5)	(1)	(3)
Points	Points failures (service affecting)	727	590	492	523	454	704	772	764	756	750	746	45	174	264	227	292

Table 103 LNE: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	54.3%	54.2%	54.2%	54.4%	52.2%	52.5%	52.5%	51.1%	50.6%	50.5%	51.1%	-1.8%	-3.1%	-3.6%	-3.9%	-1.1%
	Track - Used Life - Switch & Crossings	53.7%	53.3%	52.6%	51.3%	46.1%	56.1%	54.7%	53.1%	50.9%	49.6%	49.0%	0.9%	-0.2%	-1.7%	-1.7%	2.9%
	Track - Used Life - Sleepers	63.6%	63.8%	64.2%	65.2%	62.1%	62.1%	62.2%	60.5%	60.6%	60.9%	61.9%	-1.4%	-3.3%	-3.6%	-4.3%	-0.2%
	Track - Used Life - Ballast	51.2%	50.5%	50.2%	51.1%	50.3%	49.7%	49.1%	49.1%	48.7%	48.8%	49.7%	-2.1%	-1.4%	-1.5%	-2.3%	-0.5%
Signalling	Signalling Condition Index (SICA Remaining Life)	12.96	15.16	15.80	15.10	13.04	13.61	12.80	13.44	14.02	13.66	15.12	0.16	1.72	1.78	1.44	(2.08)
Telecoms	Telecoms - Remaining Life	67.9%	62.2%	55.2%	50.8%	52.2%	66.1%	63.6%	57.5%	52.9%	51.4%	47.3%	4.3%	4.7%	2.3%	-0.6%	4.9%
Electrical Power	EP - Remaining Life - Conductor Rail												-0.6%	0.8%	1.8%	1.2%	-0.6%
	EP - Remaining Life - Overhead Line Equipment (OLE)	58.5%	58.8%	57.5%	56.3%	53.4%	60.3%	59.1%	58.0%	55.7%	55.1%	54.0%	26.0%	25.4%	26.6%	25.9%	32.7%
	EP - Remaining Life - Signalling Power Cable												7.8%	5.8%	5.4%	6.1%	6.2%
Buildings	Stations - %age Remaining Life	69.1%	65.9%	65.8%	63.8%	69.3%	43.1%	43.1%	40.5%	39.2%	37.9%	36.6%	0.3	0.2	0.2	0.4	0.6
	Light Maintenance Depot (LMD) - %age Remaining Life	61.1%	58.4%	57.3%	57.3%	56.6%	54.0%	53.3%	52.6%	51.9%	51.2%	50.5%	8.5	5.8	6.7	5.4	8.4
Structures	Structures - PLBE Condition Banding	64.2	64.2	64.4	64.5	64.8	63.9	63.9	64.1	64.2	64.1	64.2	0.18	0.18	0.18	0.19	0.14
	Tunnel Condition Monitoring Index (TCMI)	91.6	89.4	90.9	90.1	93.7	82.6	83.1	83.7	84.2	84.7	85.3	(0.03)	0.07	0.07	0.09	0.00
Earthworks	Earthworks - Condition Banding	1.53	1.53	1.53	1.53	1.58	1.70	1.71	1.71	1.71	1.72	1.72	(0.03)	(0.03)	(0.03)	0.01	0.00
Drainage	Track Drainage - Condition Banding	1.43	1.43	1.43	1.41	1.45	1.35	1.40	1.50	1.50	1.50	1.45	1.53	1.50	1.50	1.50	1.54
	Earthwork/Structure Drainage - Condition Banding	1.53	1.53	1.53	1.49	1.54											

Table 104 LNE: track renewal volumes total

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	2	7	4	2	1	16												
Complete Renewal	Track km	27	33	18	12	14	104	24	24	40	28	18	134						
Complete (formation)	Track km	3	4	3	3	3	16	3	1	3	1	2	10						
Rail Renewal	Track km	82	75	61	59	56	334	67	65	71	60	56	319						
Single Rail	Track km	6	1	7	14	1	29	2		21	25	5	52						
High Output																			
Automated Ballast Cleaning (ABC)	Track km							39	35	45	53	25	197						
Rail Sleeper Relay	Track km	2	60	26	1		89		133	27			160						
Heavy Refurbishment	Track km	103	48	32	0	9	192	59	48	42	41	69	259						
Refurbishment																			
Heavy Refurbishment	Track km	25	8	12	6	0	49	15	18	13	15	16	77						
Medium (concrete)	Track km	4	55	35	19	0	112	34	30	7	17		89						
Medium (other)	Track km	29	55	16	31	36	167		39	78	39	39	196						
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	5	21	15	9	14	64	22	22	21	20	24	109						
Full Renewal	Point Ends	35	50	31	59	27	202	56	49	55	43	52	255						
Refurbishment																			
Heavy	Point Ends	62	66	63	40	31	262	94	90	120	89	28	421						
Medium	Point Ends	75	96	163	86	45	464	56	62	71	78	63	330						
Off Track																			
Fencing	m	108	228	116	55	48	556	149	230	208	190	279	1,056						
Slab track	Track km																		

Table 105: LNE track renewal volumes (route criticality 1)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km				1														1
Complete Renewal	Track km	1	2	1	1	2	7	8	7	7		2	24	(7)	(5)	(6)	1	(0)	1
Complete (formation)	Track km	1	0	1	0	1	3	0					0	1	0	1	0	1	3
Rail Renewal	Track km	9	24	21	17	20	90	21	25	27	25	12	109	(12)	(2)	(6)	(8)	8	(20)
Single Rail	Track km	1	0	3	6	0	11			11	11	1	22	1	0	(8)	(5)	(0)	(11)
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km	2	22	9	1		34	13	25	4	25	67		(13)	(25)	(4)	(25)		(67)
Heavy Refurbishment	Track km				20	0		112	21			133		2	(90)	(12)	1		(99)
								1		4		5			(1)	20	(4)		15
Refurbishment																			
Heavy Refurbishment	Track km	1	2	1	1	0	5	13	2		1		16	(12)	(0)	1	1	(0)	(10)
Medium (concrete)	Track km			7	4	2	0	13		4			11		3	(3)	2	0	3
Medium (other)	Track km	6		0	0		6							6	0	0			6
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends			4	2	1	3	10	4	4	4	4	6	22	(4)	0	(2)	(3)	(3)
Full Renewal	Point Ends	7	26	7	15		55	35	28	18	30	15	126	(28)	(2)	(11)	(15)	(15)	(71)
Refurbishment																			
Heavy	Point Ends	1	8	8	9	7	32	17	7	16	16		56	(16)	1	(8)	(7)	7	(24)
Medium	Point Ends	22	11	19	10	5	67	8	10	20		38		14	1	(1)	10	5	29
Off Track																			
Slab track	Track km																		

Table 106: LNE track renewal volumes (route criticality 2)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	7	10	5	3	6	31												
Complete (formation)	Track km	0	1	0	1	1	4												
Rail Renewal	Track km	45	28	21	17	19	129												
Single Rail	Track km	0	0	3	6	0	10												
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km	1	28	10	0		38												
Heavy Refurbishment	Track km	56	46	5	0		107												
Refurbishment																			
Heavy Refurbishment	Track km	0	1	1	1	0	4												
Medium (concrete)	Track km	1	11	8	4	1	24												
Medium (other)	Track km	5		0	0	1	6												
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends																		
Full Renewal	Point Ends	5	3	1	4	13													
Refurbishment																			
Full Renewal	Point Ends	12	15	12	20	12	71												
Heavy	Point Ends																		
Medium	Point Ends	4	17	9	5	4	38												
Off Track																			
Slab track	Track km	23	19	32	17	9	100												

Table 107: LNE track renewal volumes (route criticality 3)

		BP18					Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km		2	-1	2	0	3								2	(1)	2	0	3	
Complete Renewal	Track km	15	7	5	5	0	32	16	13	10	9	3	51	(1)	(6)	(5)	(4)	(4)	(19)	
Complete (formation)	Track km	1	2	1	2	0	6	2	1	2	2	0	6	(1)	1	(0)	(0)	1	0	
Rail Renewal	Track km	13	14	12	19	10	68	2	6	15	12	26	61	11	8	(3)	7	(16)	7	
Single Rail	Track km	4	0	0	0	0	4				0	0	0	4	0	0	0	0	(0)	4
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			
Rail Sleeper Relay	Track km		9	7	0		16		10	2			12		(1)	5	(0)		4	
Heavy Refurbishment	Track km	11		7	0	9	27	33	34	10	11		88	(22)	(34)	(3)	(11)	9	(61)	
Refurbishment																				
Heavy Refurbishment	Track km	22	2	6	1	0	31	2	16	0	0	2	20	20	(13)	6	1	(3)	11	
Medium (concrete)	Track km	3	11	6	4	0	23	17					17	(14)	11	6	4	(0)	6	
Medium (other)	Track km	18	22	6	13	14	73		39	39			79	18	(17)	(33)	13	14	(6)	
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	3	4	2	3	2	14	4	4	4	4	4	20	(1)	(0)	(2)	(1)	(2)	(6)	
Full Renewal	Point Ends	16	6	12	19	11	64	10	9	4	8	13	44	6	(3)	8	11	(2)	20	
Refurbishment																				
Heavy	Point Ends	45	18	19	11	9	102	33	23	31	39	4	130	12	(5)	(12)	(28)	5	(28)	
Medium	Point Ends	30	20	34	18	9	111	10	6	18	20	15	69	20	14	16	(2)	(6)	42	
Off Track																				
Slab track	Track km																			

Table 108: LNE track renewal volumes (route criticality 4)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km	2	4	3			9							2	4	3			9	
Complete Renewal	Track km	4	11	6	1	2	24			5	0	3	8	4	11	1	1	(1)	16	
Complete (formation)	Track km	0	1	1							0	0		0	1	1		(0)	1	
Rail Renewal	Track km	15	6	5	4	5	34			2		6	25	3	0	3	4	(1)	9	
Single Rail	Track km	0	0	1	1	0	2			4			4	(0)	0	1	(2)	0	(2)	
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			
Rail Sleeper Relay	Track km			1			1			7	1		9			(6)	(1)		(7)	
Heavy Refurbishment	Track km	36	2				38			24	13	18	25	49	129	12	(11)	(18)	(25)	(49)
Refurbishment																				
Heavy Refurbishment	Track km	1	2	2	1	0	6			1	0	0	13	1	16	0	1	2	(12)	
Medium (concrete)	Track km			17	10	6	0			27			0		27		(10)	10	5	
Medium (other)	Track km	1	11	4	6	7	29			39				39		1	11	(35)	6	
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	2	4	4	3	3	16			4	4	5	4	4	21	(2)	(0)	(1)	(1)	
Full Renewal	Point Ends	0	3		5	4	12			3	5			8		0	(5)	5	4	
Refurbishment																				
Heavy	Point Ends	12	16	18	10	8	63			25	43	47	1	1	117	(13)	(27)	(29)	9	
Medium	Point Ends			27	46	24	13			24	24	7	24	15	94	(24)	3	39	0	(2)
Off Track																				
Slab track	Track km																			

Table 109: LNE track renewal volumes (route criticality 5)

BP18

		BP18						Delivery Plan (mar 2014)						BP18 vs DP									
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5				
Plain Line																							
Conventional																							
Steel Relay	Track km				2	0	1											2	0	1	3		
Complete Renewal	Track km			3	1	1	5											3	(10)	(12)	(7)	(26)	
Complete (formation)	Track km			0	0													0	(1)	(1)	(1)	(2)	
Rail Renewal	Track km			4	3	3	3											(7)	2	1	3	(3)	(4)
Single Rail	Track km			0	0	1	0											0	0	1	(3)	(2)	
High Output																							
Automated Ballast Cleaning (ABC)	Track km																						
Rail Sleeper Relay	Track km																						
Heavy Refurbishment	Track km																						
Refurbishment																							
Heavy Refurbishment	Track km			1	1	1	0											1	1	1	(12)	(9)	
Medium (concrete)	Track km			10	6	4	0											10	6	(13)	(0)	3	
Medium (other)	Track km			0	22	6	12	14										0	22	6	(27)	(25)	(24)
Switches & Crossings																							
S&C delivered																							
Abandonment	Point Ends			4	3	1	3	11										(6)	(2)	(1)	(3)	(1)	(13)
Full Renewal	Point Ends					0												(2)		0	(3)	(5)	
Refurbishment																							
Heavy	Point Ends			8	9	5	4	26										2	(5)	(15)	(16)	(34)	
Medium	Point Ends			19	32	17	9	75										(5)	14	16	(7)	(5)	11
Off Track																							
Slab track	Track km																						

Table 110 LNE: buildings and civils volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Structures																			
Underbridges	m ²	5,912	20,830	26,831	14,411	8,722	76,706	22,671	33,641	37,626	32,423	19,470	145,830	(16,759)	(12,811)	(10,795)	(18,012)	(10,748)	(69,125)
Overbridges (incl BG3)	m ²	975	1,991	2,880	4,578	2,129	12,553	5,965	2,859	4,826	1,532	2,219	17,401	(4,990)	(868)	(1,946)	3,046	(90)	(4,848)
Tunnels	m ²	5,880	3,199	4,865	1,047		14,991	20	4,270	2,315	3,300	8,520	18,425	5,860	(1,071)	2,550	(2,253)	(8,520)	(3,434)
Culverts	m ²	483	2,740	1,554	563	474	5,814	306	950	278	80	75	1,689	177	1,790	1,277	483	399	4,126
Footbridges	m ²	84	74	533	224	1,159	2,074	176	273	658	210	44	1,361	(92)	(199)	(125)	14	1,115	713
Coastal & Estuary Defences	m																		
Retaining Walls	m ²	32	4,554	6,606	390	244	11,826		2,521	2,520			5,041	32	2,033	4,086	390	244	6,785
Earthworks	5-chain	97	475	647	2,366	133	3,718	511	607	515	740	637	3,010	(414)	(132)	132	1,626	(504)	708
Track Drainage																			
Renewal	lm	3,874	1,071	626	1,886	5,704	13,161							3,874	1,071	626	1,886	5,704	13,161
Refurbishment	lm	6,126	53,580	13,789	51,597	15,787	140,879							6,126	53,580	13,789	51,597	15,787	140,879
New Build	lm	2,467	1,752	143	1,466	3,260	9,088							2,467	1,752	143	1,466	3,260	9,088
EW Drainage																			
Renewal	lm	79		343	34		456	1,656	1,170	1,154	871	746	5,596	(1,577)	(1,170)	(811)	(837)	(746)	(5,140)
Refurbishment	lm	260		1,907	1,353		3,520	110	170	122	926	946	2,274	150	(170)	1,785	427	(946)	1,246
Maintenance	lm			1,749	249		1,998	7,879	9,676	8,313	10,060	7,988	43,914	(7,879)	(9,676)	(6,564)	(9,811)	(7,988)	(41,917)
New Build	lm			1,291	320		1,611							1,291	320				1,611
Franchised Stations																			
Footbridges	m ²	160	759	60	712	95	1,786	1,172	302	698	60		2,232	(1,012)	457	(638)	652	95	(446)
Train Sheds	m ²	7,753			11,838	19,591		18,450					18,450	(10,697)			11,838	1,141	
Canopies	m ²	38,660	4,550	10,777	26	11,854	65,867	5,580	253	250	60	8,815	14,958	33,080	4,297	10,527	(34)	3,039	50,909
Platforms	m ²	5,313	2,581	635	1,176	130	9,835	7,832	2,343	16,620	1,113	2,979	30,887	(2,519)	238	(15,985)	63	(2,849)	(21,052)
Buildings	m ²	14,695	1,212	3,918	6,533	3,849	30,207	1,420	1,249	1,243	872	922	5,706	13,275	(37)	2,675	5,661	2,927	24,501
Lifts & Escalators	No.							1					1	(1)				(1)	
Managed Stations																			
Footbridges	m ²	120				120								120				120	
Train Sheds	m ²							1,600				10,000	11,600	(1,600)			(10,000)	(11,600)	
Canopies	m ²																		
Platforms	m ²											2,960	1,605	4,565			(2,960)	(1,605)	(4,565)
Buildings	m ²	58	1,535	85	80	750	2,508		450	663			1,113	58	1,085	(578)	80	750	1,395
Lifts & Escalators	No.																		
Light Maintenance Depots																			
Buildings	m ²	140	210	136			486		418			418	140	(208)	136			68	
Depot Shed	m ²		15,000			93	15,093							15,000			93	15,093	
Lineside Buildings																			
Buildings	m ²	160	8		64	232		255	343	108			706	(95)	(335)	(108)	64	(474)	
MDU																			
Buildings	m ²	4,857	1,675	435		7,289	14,256	22,000	8,201	8,188	7,654		46,043	(17,143)	(6,526)	(7,753)	(7,654)	7,289	(31,787)

Table 111 LNE: signalling renewal volumes

		BP18					Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Full Conventional Resignalling	SEUs	85	179			214	479		425	135	124	49	733		85	(246)	(135)	(124)	166	(254)
ERTMS Resignalling	SEUs																			(690) (690)
Partial Conventional Resignalling	SEUs	3	3	19	36	2	63	1	27	181	19	99	326	2	(23)	(162)	17	(97)	(263)	
Targeted Component Renewal	SEUs				14	0	14	7	25	17	31	47	127	(7)	(25)	(3)	(31)	(47)	(113)	
Modular Resignalling	SEUs								79	28						(79)	(28)			(107)
Level Crossing Renewals	No.	7	23		1	18	49	10	43	26	12	12	103	(3)	(20)	(26)	(11)	6	(54)	

Table 112 LNE: elec'n and plant renewal volumes

		BP18					Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Contact Systems																			
Overhead Line Equipment (OLE) Re-wiring	wire runs	5	17	20	21	19	82	26	26	26	14	13	105	(21)	(9)	(6)	7	6	(23)
Mid-life Refurbishment	wire runs			5			5								5			5	
Structure Renewals	No.				9		9	2	2	2	2	2	10	(2)	(2)	(2)	7	(2)	(1)
Conductor rail																			
Renewals	km																		
AC distribution																			
HV Switchgear Renewal	No.	4				4								4				4	
Booster Transformers	No.																		
DC distribution															2	5		7	
HV Switchgear Renewal	No.	2		5		7									2	5		7	
HV Cables	km																		
LV Switchgear Renewal	No.																		
LV Cables	km																		
Transformer Rectifiers	No.	4	1			5									4	1		5	
Fixed plant																			
Signalling Power Cable Renewal	km	45	12	4	15	76		31	31	31	31	31	155	(31)	14	(20)	(27)	(16)	(80)
Principle Supply Point Renewal	No.	8	7	6	3	24		1	1	1	1		3	8	6	5	(1)	3	21
Rail Heating																			
Points Heating Renewal	Point End	4	5		49		58	65	38	33	25	44	205	(61)	(33)	(33)	24	(44)	(147)

Table 113 LNE: telecoms renewal volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP											
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Station Information and Surveillance Systems																			
Customer Information Systems	No.				50	50		174	160	8	342		(174)	(160)	(8)	50	(292)		
Public Address	No.	20			51	71	593			593		(573)			51	(522)			
CCTV	No.			4	413	417								4	413	417			
Clocks	No.			5	7	12	57	2	19	1	79	(57)	(2)	(19)	4	7	(67)		
Operational Comms																			
PABX Concentrator	No. of Lines	1,088	6,116	2,948		10,152								1,088	6,116	2,948		10,152	
Processor Controlled Concentrator	No. of Lines	7	14		21		79	103		182		(72)	(89)		(161)				
Driver-Only Operation: CCTV	No.	2		2	4			31		31			2	(31)	2	(27)			
Driver-Only Operation: Mirrors	No.	1			1			3		3			1	(3)		(2)			
Public Emergency Telephone System	No.	11	13	11		34	1	11	10	4	26	10	13	(10)	(4)	9			
Human Machine Interface Large	No.	11	60	30		101							11	60	30		101		
Human Machine Interface Small	No.						1			1		(1)			(1)				
Radio System	No.						3			3		(3)			(3)				
Power Systems	No.		0			0		1	3	8	12		0	(1)	(3)	(8)	(12)		

Table 114 LNE: maintenance volumes

		Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Track	Plain Line Tamping (km)	Km	MNT004	1,595	699	1,904	2,461	571	7,230	1,280	1,242	1,122	1,102	1,111	5,857	315	(543)	782	1,359	(540)	1,373
	Plain Line Stoneblowing (km)	Km	MNT005	645	658	459	252	324	2,337	909	909	909	909	909	4,545	(264)	(251)	(450)	(657)	(585)	(2,208)
	Manual Wet Bed Removal	Bay	MNT006	4,877	3,908	5,101	4,073	1,802	19,760	4,500	4,500	4,000	3,500	3,000	19,500	377	(592)	1,101	573	(1,198)	260
	Mechanical Wet Bed Removal	Bay	MNT012	3,096	4,770	3,874	3,014	2,344	17,098	2,500	2,500	2,500	2,000	1,500	11,000	596	2,270	1,374	1,014	844	6,098
	S&C Tamping	Point End	MNT007	689	504	944	755	429	3,322	870	870	870	870	870	4,350	(181)	(366)	74	(115)	(441)	(1,028)
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	3,114	2,875	3,916	4,056	2,428	16,389	3,500	3,500	3,500	3,000	2,800	16,300	(386)	(625)	416	1,056	(372)	89
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	17,284	17,212	37,393	24,254	11,971	108,114	23,000	20,000	17,000	17,000	17,000	94,000	(5,716)	(2,788)	20,393	7,254	(5,029)	14,114
	Mechanical Reprofiling of Ballast	Mile	MNT017	624	358	1,180	638	338	3,138	444	444	444	444	444	2,220	180	(86)	736	194	(106)	918
	Manual Reprofiling of Ballast	Rail Yards	MNT020	197,433	172,639	417,328	308,058	65,704	1,161,163	300,000	275,000	250,000	250,000	200,000	1,275,000	(102,567)	(102,361)	167,328	58,058	(134,296)	(113,837)
	Replacement of Pads & Insulators	Sleeper	MNT029	118,133	144,483	411,905	425,933	136,127	1,236,582	47,359	46,457	45,958	45,782	45,835	231,391	70,774	98,026	365,947	380,151	90,292	1,005,191
	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	342,164	258,117	287,101	287,259	110,607	1,285,248	250,000	250,000	225,000	200,000	200,000	1,125,000	92,164	8,117	62,101	87,259	(89,393)	160,248
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	64,515	44,503	41,494	44,100	33,815	228,428	25,000	25,000	25,000	25,000	25,000	125,000	39,515	19,503	16,494	19,100	8,815	103,428
	S&C Renew Crossing	Crossing	MNT120	101	164	161	119	93	638	123	123	115	115	110	586	(22)	41	46	4	(17)	52
	S&C Maintenance	Point End	MNT122	49,320	41,539	57,303	56,531	22,699	227,392	75,000	75,000	75,000	75,000	75,000	375,000	(25,680)	(33,461)	(17,697)	(18,469)	(52,301)	(147,608)
	S&C Renew Half Set of Switches	H/S Switch	MNT123	113	212	250	164	106	845	120	120	120	120	120	600	(7)	92	130	44	(14)	245
	S&C Stoneblowing	Point End	MNT124			25	15		40	50	110	220	220	220	820	(50)	(110)	(195)	(205)	(220)	(780)
	Rail Grinding Plain Line	Miles	MNT309	1,730	3,728	1,961	1,528		8,947	2,567	2,567	2,567	2,567	2,567	12,835	(837)	1,161	(606)	(1,039)	(2,567)	(3,888)
	Rail Grinding S&C	Point End	MNT310	134	292	240	309		975	256	300	300	300	300	1,456	(122)	(8)	(60)	9	(300)	(481)
	Fences & Boundary Walls	Yard	MNT072	64,660	50,899	56,004	48,965	54,108	274,635	250,000	250,000	250,000	250,000	250,000	1,250,000	(185,340)	(199,101)	(193,996)	(201,035)	(195,892)	(975,365)
	Drainage	Yard	MNT073	64,365	110,638	84,443	90,214	56,126	405,786	140,000	140,000	140,000	140,000	140,000	700,000	(75,635)	(29,362)	(55,558)	(49,786)	(83,874)	(294,215)
	Level Crossing Management - Off Track	Each	MNT075	3,454	2,706	15,403	16,725	7,556	45,844	4,100	4,100	4,100	4,100	4,100	20,500	(646)	(1,394)	11,303	12,625	3,456	25,344
	Vegetation Removal of Boundary Trees	Number	MNT081	1,130	1,139	76			2,345	1,500	1,500	1,500	1,500	1,500	7,500	(370)	(361)	(1,424)	(1,500)	(1,500)	(5,155)
	Vegetation Management by Train	Mile	MNT082	6	55				61	50	50	50	50	50	250	(44)	5	(50)	(50)	(50)	(189)
	Vegetation Management (manual)	Square Yard	MNT170	602,245	800,344	249,026	170,695	55,814	1,878,125	800,000	800,000	800,000	800,000	800,000	4,000,000	(197,755)	344	(550,974)	(629,305)	(744,186)	(2,121,875)
	Vegetation Management (mechanised)	Mile	MNT171	399	4,635				5,034	369	369	369	369	369	1,845	30	4,266				4,296
	Vegetation Management (mechanised)	Square Metre	MNT171			3,328,642	2,799,473	1,929,207	8,057,322												
Electrical Power	Maintain Conductor Rail	Various	MNT206	5	460	45	7		517	50	50	50	50	50	250	(45)	410	(5)	(43)	(50)	267
	Maintain DC Traction Power Supplies	Each	MNT209	1,122	950	1,878	1,733	282	5,966							1,122	950	1,878	1,733	282	5,966
	Maintain OHL Components	Various	MNT211	68,569	110,392	98,870	128,985	28,795	435,611	45,300	45,300	45,300	45,300	45,300	226,500	23,269	65,092	53,570	83,685	(16,505)	209,111
	Maintain Points Heating	Each	MNT212	29,498	28,245	29,503	28,423	13,477	129,146	29,500	29,500	29,500	29,500	29,500	147,500	(2)	(1,255)	3	(1,077)	(16,023)	(18,354)
	Maintain Signalling Power Supplies	No.	MNT213	4,348	4,989	4,942	5,147	1,720	21,146	6,500	6,500	6,500	6,500	6,500	32,500	(2,152)	(1,511)	(1,558)	(1,353)	(4,780)	(11,354)
	Visual Examinations	No.	MNT226a	6,998	7,381	11,353	10,404	9,272	45,408	8,600	8,548	8,847	8,952	8,674	43,621	(1,602)	(1,167)	2,506	1,452	598	1,787
Civils	Tunnel Examinations	No. minor elem.	MNT220	29,352	11,541	30,420	19,136	31,366	121,815	27,390	27,390	27,390	27,390	27,390	136,951	1,962	(15,849)	3,030	(8,254)	3,976	(15,136)
	Detailed Examinations	No.	MNT221	1,551	1,191	1,744	1,194	1,402	7,082	1,335	1,545	1,238	1,133	1,411	6,662	216	(354)	506	61	(9)	420
	Underwater Examinations	No.	MNT222	40	146	138	110	130	564	174	130	117	174	130	725	(134)	16	21	(64)		(161)
	Ancillary Structure Examinations	No. detailed	MNT223	56	164	158	88	77	543	61	172	35	34	66	368	(5)	(8)	123	54	11	175
	Hidden Critical Element Examinations	No.	MNT224	153	29		28	28	238	153	150	150	150	150	753	(121)	(150)	(122)	(122)	(515)	
Building	Load Carrying Assessments	No. spans	MNT225	1,727	120	71	434	471	2,823	1,727	1,366	1,090	1,761	1,444	7,388	(1,246)	(1,019)	(1,327)	(973)	(4,565)	
	Visual Examinations	Each	MNT226	3,536	4,104	4,285	4,862	4,932	21,719	3,537	3,534	3,515	3,538	3,537	17,661	(1)	570	770	1,324	1,395	4,058
	5 Yearly Examinations	Each	MNT227	96	80	26	117	103	422	93	93	95	91	92	464	3	(13)	(69)	26	11	(42)

Table 115 LNW: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	2.19	2.04	1.94	2.54	2.62	2.89	2.83	2.78	2.74	2.70	2.62	0.64	0.74	0.80	0.16	0.00
	Track geometry (Poor Track Geometry)	1.54%	1.48%	1.59%	1.66%	1.80%	1.75%	1.76%	1.77%	1.78%	1.79%	1.80%	0.22%	0.29%	0.19%	0.13%	-
	Track failures (service affecting)	663	859	923	936	889	770	779	774	751	729	695	116	(85)	(172)	(207)	(194)
Signalling	Signalling failures (service affecting)	3,545	3,301	3,222	3,145	3,192	3,880	4,009	3,940	3,837	3,774	3,686	464	639	615	629	494
Telecoms	Telecoms failures (service affecting)	693	672	548	370	642	199	255	219	201	195	190	(438)	(453)	(347)	(175)	(452)
Electrical Power	AC traction power failures (service affecting)	268	306	259	280	249	253	249	258	269	268	268	(19)	(48)	10	(12)	19
	DC traction power failures (service affecting)	42	53	37	51	38	64	58	56	52	50	48	16	3	15	(1)	10
	Non traction operational power supply failures (service affecting)	55	40	38	48	38	107	154	147	143	140	138	99	107	105	92	100
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	1,590	1,418	1,662	1,778	1,700	1,775	1,680	1,680	1,680	1,680	1,680	90	262	18	(98)	(20)
Structures	Number of open faults with a risk score ≥12	427	203	232	249	300	1,723	500	475	450	425	400	73	272	218	176	100
Earthworks	Earthwork failures	18	27	32	26	26	18	18	17	16	16	15	(0)	(10)	(16)	(10)	(11)
Points	Points failures (service affecting)	959	818	831	927	860	1,038	1,091	1,071	1,056	1,043	1,029	132	253	225	116	169

Table 116 LNW: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	43.8%	44.4%	44.7%	46.5%	44.7%	41.8%	42.2%	42.5%	43.2%	43.8%	44.7%	-1.5%	-1.9%	-1.5%	-2.7%	0.1%
	Track - Used Life - Switch & Crossings	44.6%	44.9%	45.0%	46.6%	46.7%	46.5%	47.5%	48.2%	48.1%	47.4%	47.4%	2.8%	3.3%	3.1%	0.8%	0.6%
	Track - Used Life - Sleepers	54.5%	55.5%	56.0%	58.1%	58.1%	51.9%	52.2%	52.5%	53.7%	54.7%	56.1%	-2.2%	-3.0%	-2.3%	-3.4%	-2.0%
	Track - Used Life - Ballast	42.0%	42.2%	42.9%	44.7%	45.3%	38.9%	39.2%	39.7%	40.8%	41.9%	43.3%	-2.8%	-2.5%	-2.1%	-2.8%	-2.1%
Signalling	Signalling Condition Index (SICA Remaining Life)	11.36	15.32	15.80	14.60	12.54	11.49	11.42	11.79	11.73	12.33	11.79	(0.06)	3.53	4.07	2.27	0.75
Telecoms	Telecoms - Remaining Life	66.2%	56.2%	49.0%	47.2%	49.3%	67.1%	61.9%	57.6%	52.4%	48.8%	60.5%	4.3%	-1.4%	-3.4%	-1.6%	-11.2%
Electrical Power	EP - Remaining Life - Conductor Rail	60.5%	58.5%	59.3%	57.2%	56.6%	62.6%	60.7%	59.8%	58.5%	57.6%	56.8%	-0.2%	-1.3%	0.8%	-0.4%	-0.2%
	EP - Remaining Life - Overhead Line Equipment (OLE)	59.4%	59.5%	58.3%	58.5%	55.3%	60.7%	59.6%	58.5%	56.3%	55.7%	55.3%	-0.2%	1.0%	2.0%	2.8%	-
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	55.6%	56.4%	55.9%	58.9%	54.2%	39.9%	39.9%	38.7%	38.2%	37.6%	37.0%	15.7%	17.7%	17.7%	21.3%	17.2%
	Light Maintenance Depot (LMD) - %age Remaining Life	65.0%	65.4%	64.6%	63.9%	60.7%	59.9%	59.0%	58.2%	57.4%	56.5%	55.7%	5.9%	7.2%	7.2%	7.4%	5.0%
Structures	Structures - PLBE Condition Banding	64.3	64.3	64.4	64.7	66.1	64.6	64.6	64.6	64.6	64.7	64.7	(0.2)	(0.3)	(0.3)	0.0	1.4
	Tunnel Condition Monitoring Index (TCMI)	86.8	84.4	85.5	84.4	90.5	82.2	82.8	83.3	83.8	84.3	84.9	4.1	1.1	1.7	0.1	5.6
Earthworks	Earthworks - Condition Banding	1.83	1.80	1.79	1.80	1.89	1.85	1.85	1.84	1.83	1.82	1.81	0.02	0.04	0.04	0.02	(0.08)
Drainage	Track Drainage - Condition Banding	1.35	1.35	1.34	1.35	1.30	1.30	1.30	1.30	1.30	1.30	1.30	(0.05)	(0.05)	(0.04)	(0.05)	-
	Earthwork/Structure Drainage - Condition Banding	1.69	1.69	1.68	1.66	1.70	1.70	1.70	1.70	1.70	1.70	1.70	0.01	0.01	0.02	0.04	-

Table 117 LNW: track renewal volumes total

		BP18						Delivery Plan (mar 2014)						BP18 vs DP								
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5			
Plain Line																						
Conventional																						
Steel Relay	Track km	2	4	14		5	25					1	1					2	4	14	4	25
Complete Renewal	Track km	24	22	14	5	9	75	25	25	23	32	29	135	(1)	(3)	(9)	(27)	(20)	(59)			
Complete (formation)	Track km	9	8	10	3	5	36	16	14	16	11	6	63	(7)	(6)	(6)	(8)	(0)	(27)			
Rail Renewal	Track km	28	55	54	21	28	185	53	35	61	73	78	299	(25)	19	(7)	(52)	(50)	(114)			
Single Rail	Track km	16	18	11	11	9	66	2	18		0		20	15	1	11	11	9	46			
High Output																						
Automated Ballast Cleaning (ABC)	Track km							47	94	35	15	21	212	(47)	(94)	(35)	(15)	(21)	(212)			
Rail Sleeper Relay	Track km	62	19	7		3	91	69	27				96	(7)	(8)	7		3	(6)			
Heavy Refurbishment	Track km	61	73	17		11	161	14	20	10	7	12	63	46	53	7	(7)	(1)	98			
Refurbishment																						
Heavy Refurbishment	Track km	7	11	3	1	2	25	15	25	11	15	11	77	(9)	(15)	(8)	(13)	(8)	(53)			
Medium (concrete)	Track km	27	20	18	3	22	90	8	45	21	20	53	147	19	(25)	(3)	(17)	(31)	(57)			
Medium (other)	Track km	1	1	5	2	2	11	17		24	32		74	(16)	1	(19)	(31)	2	(63)			
Switches & Crossings																						
S&C delivered																						
Abandonment	Point Ends	8	5	32	10	29	84	10	4	14	9	10	47	(2)	1	18	1	19	37			
Full Renewal	Point Ends	22	21	31	4	34	112	47	42	61	47	39	236	(25)	(21)	(30)	(43)	(5)	(124)			
Refurbishment																						
Heavy	Point Ends	15	20	33	12	53	133	4	33	95	140	141	413	11	(13)	(62)	(128)	(88)	(280)			
Medium	Point Ends	12	65	37	16	17	147	82	82	83	83	83	413	(70)	(17)	(46)	(67)	(66)	(266)			
Off Track																						
Fencing	m	171	299	123	52	31	677	91	91	91	91	91	455	80	208	32	(39)	(60)	222			
Slab track	Track km					1	1										1		1			

Table 118: LNW track renewal volumes (route criticality 1)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	14	9	8	4	7	41	18	8	10	11	12	59	(4)	1	(3)	(7)	(5)	(18)
Complete (formation)	Track km	5	4	6	3	3	22	11	9	11	7	3	41	(6)	(5)	(6)	(4)	1	(19)
Rail Renewal	Track km	7	27	26	11	16	86	30	3	13	49	57	151	(23)	24	13	(38)	(41)	(66)
Single Rail	Track km	8	18	10	11	9	56	1	18				19	7	(0)	10	11	9	37
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km	54	18	5		3	80	46	94	35	15	21	211	(46)	(94)	(35)	(15)	(21)	(211)
Heavy Refurbishment	Track km	57	71	16		2	146	69	27				96	(15)	(9)	5	3		(17)
Refurbishment																			
Heavy Refurbishment	Track km	3	6	3	1	2	16	14	17	10	0	2	44	43	53	6	(0)	0	102
Medium (concrete)	Track km	1	1	0	0	1	3							1	1	0	0	(3)	(1)
Medium (other)	Track km																		
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	4	4	5	6	18	38	8	4	6	9	2	29	(4)	(0)	(1)	(3)	16	8
Full Renewal	Point Ends	12	11	22	3	22	69	32	15	26	38	10	121	(20)	(4)	(4)	(35)	12	(52)
Refurbishment																			
Heavy	Point Ends	3	2	3	1	5	14	2		10	13	18	43	1	2	(7)	(12)	(13)	(29)
Medium	Point Ends	12		2			14							12		2			14
Off Track																			
Slab track	Track km					0	0										0		0

Table 119: LNW track renewal volumes (route criticality 2)

		BP18					Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional	Track km																		
Steel Relay	Track km	4	4	2	0	2	12	5	9	8	6	8	35	(1)	(5)	(5)	(6)	(6)	(23)
Complete Renewal	Track km	4	3	3	0	1	11	4	4	3			11	0	(1)	0	0	1	1
Complete (formation)	Track km																		
Rail Renewal	Track km	1	4	4	2	2	14	5			10	9	24	(4)	4	4	(8)	(6)	(10)
Single Rail	Track km	2					2							2					2
High Output																			
Automated Ballast Cleaning (ABC)	Track km							2					2	(2)					(2)
Rail Sleeper Relay	Track km	8	1	2			11							8	1	2			11
Heavy Refurbishment	Track km	3		1		8	12							3		1		8	12
Refurbishment																			
Heavy Refurbishment	Track km	0	0	0	0	0	0	1		2	1		4	(1)	0	(2)	(1)	(0)	(4)
Medium (concrete)	Track km																		
Medium (other)	Track km																		
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	1	1	2	3	9	15			6		8	14	1	1	(5)	3	1	1
Full Renewal	Point Ends	3	6	1	1	8	18	4	12	28		25	69	(1)	(6)	(28)	1	(17)	(51)
Refurbishment																			
Heavy	Point Ends	5	0	0	0	1	6			6			6	5	0	(6)	0	1	0
Medium	Point Ends																		
Off Track																			
Slab track	Track km																		

Table 120: LNW track renewal volumes (route criticality 3)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	1	2	2		0	5					1	1		1	2	2	(1)	4
Complete Renewal	Track km	2	3	2	0	0	8	1	2	5	11	6	25	1	1	(2)	(10)	(6)	(17)
Complete (formation)	Track km	0	1	1		0	1	1	1			0	2	(1)	0	1	0	0	(1)
Rail Renewal	Track km	4	12	12	5	5	38	1	18	39	5	8	71	3	(5)	(27)	(0)	(3)	(33)
Single Rail	Track km	4	1	0	0	0	6	0			0		1	3	1	0	0	0	5
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km	0	2	0		0	2		2		7	4	13	0	(0)	0	(7)	(4)	(11)
Refurbishment																			
Heavy Refurbishment	Track km	0	0	0	0	0	1		1				1	0	(0)	0	0	0	0
Medium (concrete)	Track km	7	4	3	1	3	18	8			20		28	(1)	4	3	(19)	3	(10)
Medium (other)	Track km	1	1	2	1	1	5	17			16		33	(16)	1	2	(15)	1	(28)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends		0	24	0	1	26	1		1			2	(1)	0	23	0	1	24
Full Renewal	Point Ends	3	3	7	0	4	18	2	13	6	9	4	34	1	(10)	1	(9)	(0)	(17)
Refurbishment																			
Heavy	Point Ends	4	16	19	5	30	74	2	13	49	47	123	234	2	3	(31)	(42)	(93)	(160)
Medium	Point Ends		44	24	11	11	91	82	39	39	39	83	282	(82)	5	(15)	(28)	(72)	(191)
Off Track																			
Slab track	Track km																		

Table 121: LNW track renewal volumes (route criticality 4)

		BP18					Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	1	1				2							1	1			2	
Complete Renewal	Track km	2	4	1		0	7	1	1	0	1	3	7	1	3	0	(1)	(3)	1
Complete (formation)	Track km			0		1	1		1	2	4	3	9		(1)	(1)	(4)	(2)	(8)
Rail Renewal	Track km	6	4	4	2	2	17	8	8	7			23	(2)	(4)	(3)	2	2	(5)
Single Rail	Track km	0					0							0				0	
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km		0	0		1	1				6	6		0	0		(6)	(6)	
Refurbishment																			
Heavy Refurbishment	Track km	3	4	0	0	0	7	6	6	4	2	3	21	(3)	(2)	(4)	(2)	(3)	(14)
Medium (concrete)	Track km	12	13	11	2	15	53		45			49	94	12	(32)	11	2	(34)	(41)
Medium (other)	Track km			0	2	1	1			12	16		28		0	(10)	(16)	1	(25)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends		0	0	0	1	1	1					1	(1)	0	0	0	1	0
Full Renewal	Point Ends	3	1	0	0	1	5	5	2				7	(2)	(1)	0	0	1	(2)
Refurbishment																			
Heavy	Point Ends	3	1	6	1	6	16		20	24			44	3	(19)	(18)	1	6	(28)
Medium	Point Ends		14	7	3	3	28		43	44			87		(29)	(37)	3	3	(59)
Off Track																			
Slab track	Track km																		

Table 122: LNW track renewal volumes (route criticality 5)

		BP18						Delivery Plan (mar 2014)						BP18 vs DP								
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5			
Plain Line																						
Conventional																						
Steel Relay	Track km	0	2	12		5	19											0	2	12	5	19
Complete Renewal	Track km	2	2	1	1	0	7		0	5		3		9			1	(3)	1	(2)	0	(2)
Complete (formation)	Track km										0										0	
Rail Renewal	Track km	10	7	8	2	3	30		9	7	2	9	4	31			1	1	6	(7)	(1)	(1)
Single Rail	Track km	2					2										2				2	
High Output																						
Automated Ballast Cleaning (ABC)	Track km																					
Rail Sleeper Relay	Track km																					
Heavy Refurbishment	Track km																					
Refurbishment																						
Heavy Refurbishment	Track km					0		1									0		1		1	
Medium (concrete)	Track km	7	3	2	0	3	15			21				21			7	3	(18)	0	3	(5)
Medium (other)	Track km	0	1	0	0	0	2			12				12			0	(11)	0	0	0	(11)
Switches & Crossings																						
S&C delivered																						
Abandonment	Point Ends	3		1			4										3		1		4	
Full Renewal	Point Ends	1	0	1	0	0	3		4					4			(3)	0	1	0	0	(1)
Refurbishment																						
Heavy	Point Ends	1	5	5	11		23			6	80			86			1	(1)	(75)	11	(63)	
Medium	Point Ends	7	4	2	2		14			44				44			7	4	(42)	2	(30)	
Off Track																						
Slab track	Track km																					

Table 123 LNW: buildings and civils volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP								
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5			
Structures																					
Underbridges	m ²	15,964	20,642	23,858	17,494	8,373	86,330	22,540	32,692	38,912	38,912	38,912	171,968	(6,576)	(12,050)	(15,054)	(21,418)	(30,539)	(85,638)		
Overbridges (incl BG3)	m ²	5,403	3,293	4,548	1,774	3,823	18,841	10,882	5,315	3,165	3,165	3,165	25,692	(5,479)	(2,022)	1,383	(1,391)	658	(6,852)		
Tunnels	m ²	7,392	4,137	10,448	6,340	11,323	39,640	11,063	18,939	6,587	6,587	6,587	49,763	(3,671)	(14,802)	3,861	(247)	4,736	(10,123)		
Culverts	m ²	348	109	172	442	1,323	2,394	158	666	365	365	365	1,919	190	(557)	(193)	77	958	475		
Footbridges	m ²		378		92	107	577	308	303	559	559	559	2,288	(308)	75	(559)	(467)	(452)	(1,711)		
Coastal & Estuary Defences	m	278	1,265	1,013	345	2,449	5,350	990	1,212	860	860	860	4,782	(712)	53	153	(515)	1,589	568		
Retaining Walls	m ²	1,897	360	4,887	781	1,441	9,366	1,955	743	2,241	2,241	2,241	9,421	(58)	(383)	2,646	(1,460)	(800)	(55)		
Earthworks	5-chain	600	503	396	316	215	2,030	625	496	628	766	722	3,237	(25)	7	(232)	(450)	(507)	(1,207)		
Track Drainage																					
Renewal	lm		8,099	5,600	1,916	2,471	18,086							8,099	5,600	1,916	2,471	18,086			
Refurbishment	lm		1,542	2,077		736	4,355							1,542	2,077	736	4,355				
New Build	lm		663	3,637	2,759	3,783	10,842							663	3,637	2,759	3,783	10,842			
EW Drainage																					
Renewal	lm	1,083	4,533	310	372	600	6,898							1,083	4,533	310	372	600	6,898		
Refurbishment	lm	91	762		15	1,084	1,952							91	762	15	1,084	1,952			
Maintenance	lm	1,730	9,499	4,268	200	775	16,472							1,730	9,499	4,268	200	775	16,472		
New Build	lm	1,144	5,209	5,223	2,713	82	14,371							1,144	5,209	5,223	2,713	82	14,371		
Franchised Stations																					
Footbridges	m ²	112	340	135	85	158	830	449	376	691	1,112	88	2,716	(337)	(36)	(556)	(1,027)	70	(1,886)		
Train Sheds	m ²		11,800		10,837		22,637	1,219	600				1,819	(1,219)	11,200		10,837		20,818		
Canopies	m ²	1,447	855	5,181	118	3,257	10,858	1,477	706	3,027	125		5,335	(30)	149	2,154	(7)	3,257	5,523		
Platforms	m ²	11,498	1,178	12,446	1,902	4,625	31,648	25,402	16,000	13,855	1,700	1,241	58,198	(13,904)	(14,822)	(1,410)	202	3,384	(26,550)		
Buildings	m ²	25	4,011	8,109	190	259	12,594			60	50		677	787	25	3,951	8,059	190	(418)	11,807	
Lifts & Escalators	No.		4				4							4					4		
Managed Stations																					
Footbridges	m ²					75	75												75	75	
Train Sheds	m ²					573	573												(1,500)	573	(927)
Canopies	m ²								1,500				1,500								
Platforms	m ²	202				2,368	2,570							202					2,368	2,570	
Buildings	m ²		7,399	672		8,071									7,399	672			8,071		
Lifts & Escalators	No.																				
Light Maintenance Depots																					
Buildings	m ²	2				30	32							2					30	32	
Depot Shed	m ²	7		0		7								7		0			7		
Lineside Buildings																					
Buildings	m ²	160	3,135	2,912	1,907	1,767	9,880							160	3,135	2,912	1,907	1,767	9,880		
MDU																					
Buildings	m ²	1,067	1,615	3,655	5,472	1,825	13,634							1,067	1,615	3,655	5,472	1,825	13,634		

Table 124 LNW: signalling renewal volumes

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Full Conventional Resignalling	SEUs	140	455	237	159	354	1,345	372	359	256	547	1,533		(231)	97	(19)	(388)	354	(188)
ERTMS Resignalling	SEUs																		
Partial Conventional Resignalling	SEUs	29	31	130	8	35	233	17	61	113	51	2	243	11	(30)	17	(43)	34	(11)
Targeted Component Renewal	SEUs							7	16	7	7	4	42	(7)	3	(7)	(7)	(4)	(24)
Modular Resignalling	SEUs							39		11	11	144	205	(39)		(11)	(11)	(144)	(205)
Level Crossing Renewals	No.	4	3	4	3		14	4	10	3	2	8	27		(7)	1	1	(8)	(13)

Table 125 LNW: elec'n and plant renewal volumes

	BP18					Delivery Plan (mar 2014)						BP18 vs DP										
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5				
Contact Systems																						
Overhead Line Equipment (OLE) Re-wiring		wire runs																				
Mid-life Refurbishment		wire runs																				
Structure Renewals	No.		3	3		6		4	3	80	3	3	93			(1)	(3)	(77)	(3)	(3)	(87)	
Conductor rail																						
Renewals	km			2		2		0	6	3	1	0	10			(0)	(6)	(3)	0	(0)	(9)	
AC distribution																						
HV Switchgear Renewal	No.	17	6		23		16	8	4				28			1	(2)	(4)			(5)	
Booster Transformers	No.							17	16	2	3		38			(17)	(16)	(2)	(3)		(38)	
DC distribution																						
HV Switchgear Renewal	No.			8		8			1				1			(1)		8		7		
HV Cables	km			1	3	4		2	2	2	7	2	17			(2)	(2)	(2)	(6)	1	(13)	
LV Switchgear Renewal	No.																					
LV Cables	km	3	1			3		1	1	1	1	1	4			2	(0)	(1)	(1)	(1)	(0)	
Transformer Rectifiers	No.																					
Fixed plant																						
Signalling Power Cable Renewal	km			21	94	115		78	93	52	4	4	231			(78)	(93)	(52)	17	90	(116)	
Principle Supply Point Renewal	No.	2	15	5	1	1	24		4	2	1		7			(2)	13	4	1	1	17	
Rail Heating																						
Points Heating Renewal	Point End		113	57	62	4	236		62	25	8	8	8	111			(62)	88	49	54	(4)	125

Table 126 LNW: telecoms renewal volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Station Information and Surveillance Systems																			
Customer Information Systems	No.			22	59	20	101							(30)	(166)	(44)	(41)	(281)	
Public Address	No.			88	608	61	757							(747)	(938)	574	10	(1,101)	
CCTV	No.	151	150		493	42	836							151	(252)	(249)	394	42	87
Clocks	No.			8	1	3	12							(9)	(32)	(20)	(7)	(68)	
Operational Comms																			
PABX Concentrator	No. of Lines				249	249											249	249	
Processor Controlled Concentrator	No. of Lines							201						(201)			(201)		
Driver-Only Operation: CCTV	No.								4								(4)	(4)	
Driver-Only Operation: Mirrors	No.		30			30				83							(53)	(53)	
Public Emergency Telephone System	No.										10						(10)	2	(8)
Human Machine Interface Large	No.				2	2						76						(76)	(76)
Human Machine Interface Small	No.																		
Radio System	No.																		
Power Systems	No.																		

Table 127 LNW: maintenance volumes

		Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP										
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5					
Track	Plain Line Tamping (km)	Km	MNT004	1,300	1,226	967	1,235	1,282	6,011	1,625	1,629	1,633	1,638	1,645	8,171	(325)	(402)	(666)	(403)	(363)	(2,160)				
	Plain Line Stoneblowing (km)	Km	MNT005	349	404	309	313	485	1,861	771	773	777	778	780	3,879	(421)	(369)	(468)	(465)	(295)	(2,019)				
	Manual Wet Bed Removal	Bay	MNT006	3,837	3,605	3,911	3,324	3,540	18,217	5,023	5,029	5,055	5,066	5,106	25,279	(1,186)	(1,424)	(1,144)	(1,742)	(1,566)	(7,062)				
	Mechanical Wet Bed Removal	Bay	MNT012	1,494	995	1,244	1,650	1,370	6,753	1,895	1,907	1,925	1,946	1,967	9,640	(401)	(912)	(681)	(296)	(597)	(2,887)				
	S&C Tamping	Point End	MNT007	929	783	593	538	828	3,670	1,131	1,075	1,110	1,076	1,089	5,482	(202)	(292)	(517)	(538)	(262)	(1,812)				
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	3,185	3,814	4,368	3,394	4,155	18,917	2,042	2,042	2,042	2,042	2,042	10,212	1,143	1,772	2,326	1,352	2,113	8,705				
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	13,951	14,070	14,424	14,634	17,257	74,336	13,553	13,553	13,553	13,553	13,553	67,765	398	517	871	1,081	3,704	6,571				
	Mechanical Reprofiling of Ballast	Mile	MNT017	968	4,862	1,053	1,044	570	8,496	890	891	895	895	899	4,470	78	3,971	158	149	(329)	4,027				
	Manual Reprofiling of Ballast	Rail Yards	MNT020	688,892	631,188	524,945	574,384	518,233	2,937,642	371,354	364,328	356,478	348,001	339,637	1,779,798	317,538	266,860	168,467	226,383	178,596	1,157,844				
	Replacement of Pads & Insulators	Sleeper	MNT029	103,250	196,982	115,255	100,051	119,871	635,410	98,086	91,444	86,213	81,700	78,691	436,133	5,164	105,538	29,042	18,351	41,181	199,277				
	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	366,958	316,806	305,549	280,573	281,258	1,551,143	129,039	124,004	146,215	118,947	120,199	638,404	49,890	6,981	2,006	(17,709)	(16,189)	24,979				
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	129,039	124,004	146,215	118,947	120,199	638,404	178	177	179	181	183	897	(40)	(29)	(37)	(22)	(42)	(169)				
	S&C Renew Crossing	Crossing	MNT120	138	148	142	159	141	728	135,341	134,826	135,575	134,004	133,527	673,273	(1,761)	(4,803)	28,602	(10,664)	(26,534)	(15,161)				
	S&C Maintenance	Point End	MNT122	133,580	130,023	164,177	123,340	106,993	658,112	91	87	79	114	164	535	225	226	227	228	229	1,136				
	S&C Renew Half Set of Switches	H/S Switch	MNT123	38	20	25	34	83	200	2,374	2,374	2,374	2,374	2,374	11,870	(134)	(139)	(148)	(114)	(65)	(601)				
	S&C Stoneblowing	Point End	MNT124	4,256	2,691	2,932	2,533	12,411	478	410	474	472	1,833	257	271	279	295	302	1,404	(2,374)	1,882	317	558	159	541
	Rail Grinding Plain Line	Miles	MNT309	130,480	196,555	103,309	77,108	73,369	580,820	202,038	201,990	202,051	201,986	245,256	1,053,321	(71,558)	(5,435)	(98,742)	(124,879)	(171,887)	(472,502)				
	Rail Grinding S&C	Point End	MNT310	54,581	46,074	47,625	104,153	45,677	298,110	182,138	182,281	182,423	182,565	182,707	912,114	(127,557)	(136,207)	(134,798)	(78,412)	(137,030)	(614,004)				
	Fences & Boundary Walls	Yard	MNT072	2,187	2,097	4,587	4,729	3,381	16,981	2,348	2,348	2,348	2,348	2,348	11,742	(161)	(251)	2,239	2,381	1,033	5,239				
	Drainage	Yard	MNT073	11,114	18,663	985	30	16,769	47,561	7,398	7,654	7,910	8,165	8,421	39,548	5	5	6	6	28	3,716				
	Level Crossing Management - Off Track	Each	MNT075	527	21	620			1,168	631,656	1,081,964	1,532,271	1,982,579	2,432,887	7,661,357	522	16	614	(6)	(6)	1,140				
	Vegetation Removal of Boundary Trees	Number	MNT081	1,054,008	964,919	518,502	621,202		3,158,631	6,079	355				158	178	199	219	240	994	5,921	177		6,098	
	Vegetation Management by Train	Mile	MNT082						6,434																
	Vegetation Management (manual)	Square Yard	MNT170						3,489,725	4,436,532	1,498,506	9,424,762													
	Vegetation Management (mechanised)	Square Metre	MNT171																						
Electrical Power	Maintain Conductor Rail	Various	MNT206	6,363	8,351	22,424	14,769	7,992	59,899	2,048	2,048	2,048	2,048	2,048	10,240	4,315	6,303	20,376	12,721	5,944	49,659				
	Maintain DC Traction Power Supplies	Each	MNT209	12,306	13,936	15,214	14,997	14,068	70,521	17,539	17,539	17,539	17,539	17,539	87,695	(5,233)	(3,603)	(2,326)	(2,542)	(3,471)	(17,174)				
	Maintain OHL Components	Various	MNT211	163,541	157,996	211,784	151,608	140,654	825,582	65,445	67,677	69,843	69,813	69,783	342,561	98,096	90,319	141,941	81,795	70,871	483,021				
	Maintain Points Heating	Each	MNT212	32,736	33,008	25,528	32,781	35,355	159,408	23,453	23,453	23,453	23,453	23,453	117,265	9,283	9,555	2,075	9,328	11,902	42,143				
	Maintain Signalling Power Supplies	No.	MNT213	8,842	10,544	10,526	13,816	10,256	53,983	10,072	10,072	10,072	10,072	10,072	50,360	(1,230)	472	454	3,744	184	3,623				
	Visual Examinations	No.	MNT22a	13,130	8,536	13,090	12,430	13,097	60,283	13,042	12,480	12,697	12,389	12,318	62,926	88	(3,944)	393	41	779	(2,643)				
Civils	Tunnel Examinations	No. minor elem.	MNT220	27,714	31,111	25,657	26,981	26,467	137,930	29,658	29,658	29,658	29,658	29,658	148,292	(1,944)	1,453	(4,001)	(2,677)	(3,191)	(10,362)				
	Detailed Examinations	No.	MNT221	1,940	1,277	2,104	1,980	2,148	9,449	1,797	2,359	2,142	2,450	2,521	11,269	143	(1,082)	(38)	(470)	(373)	(1,820)				
	Underwater Examinations	No.	MNT222	245	360	386	369	396	1,756	356	350	350	350	350	1,756	(111)	10	36	19	46					
	Ancillary Structure Examinations	No. detailed	MNT223	272	194	88	399	202	1,155	139	463	287	287	1,463	133	(269)	(199)	112	(85)	(308)					
	Hidden Critical Element Examinations	No.	MNT224	283	400	382	331	325	1,721	304	400	400	400	400	1,904	(21)	(18)	(69)	(75)	(183)					
	Load Carrying Assessments	No. spans	MNT225	1,699	833	535	669	533	4,269	3,452	2,895	3,185	2,698	2,648	14,878	(1,753)	(2,062)	(2,650)	(2,029)	(2,115)	(10,609)				
Buildings	Visual Examinations	Each	MNT226	366	386	2,945	493	489	4,679	3,239	3,223	3,218	3,190	3,222	16,092	(2,873)	(2,837)	(273)	(2,697)	(2,733)	(11,413)				
	5 Yearly Examinations	Each	MNT227	97	92	83	147		419	155	169	176	204	172	876	(58)	(77)	(93)	(57)	(172)	(457)				

Table 128 Sussex: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	4.63	3.65	6.49	3.20	4.27	3.77	4.72	4.63	4.45	4.45	4.27	0.09	0.98	(2.04)	1.25	(0.00)
	Track geometry (Poor Track Geometry)	4.48%	4.22%	4.57%	4.02%	4.37%	4.40%	4.52%	4.48%	4.44%	4.40%	4.37%	0.04%	0.26%	-0.13%	0.38%	-
	Track failures (service affecting)	243	239	191	256	204	209	225	220	220	215	210	(18)	(19)	29	(41)	6
Signalling	Signalling failures (service affecting)	943	931	742	760	767	900	890	885	880	875	868	(53)	(46)	138	115	101
Telecoms	Telecoms failures (service affecting)	222	169	148	103	146	123	108	97	88	67	67	(114)	(72)	(60)	(36)	(79)
Electrical Power	AC traction power failures (service affecting)																
	DC traction power failures (service affecting)	75	70	75	55	72	65	70	70	65	60	70	(5)	-	(10)	5	(2)
	Non traction operational power supply failures (service affecting)	13	16	7	9	7	25	25	25	25	25	25	12	9	18	16	18
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	497	249	263	291	262	750	850	700	550	600	650	353	451	287	309	388
Structures	Number of open faults with a risk score ≥12	51	32	20	18	35	90	85	75	65	60	56	34	43	45	42	21
Earthworks	Earthwork failures	6	6	7	5	5	6	6	6	6	5	5	0	(1)	(1)	0	(0)
Points	Points failures (service affecting)	182	170	129	149	147	262	235	235	230	225	225	53	65	101	76	78

Table 129 Sussex: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	62.6%	63.3%	63.7%	62.9%	58.5%	56.2%	56.2%	56.3%	56.2%	56.1%	55.9%	-6.4%	-7.0%	-7.5%	-6.8%	-2.6%
	Track - Used Life - Switch & Crossings	67.9%	66.7%	61.3%	60.4%	64.6%	70.4%	70.5%	70.1%	70.1%	71.1%	70.8%	2.6%	3.4%	8.8%	10.7%	6.1%
	Track - Used Life - Sleepers	71.5%	72.7%	72.8%	73.7%	69.7%	69.8%	70.2%	70.8%	70.8%	70.8%	70.8%	-1.2%	-1.9%	-2.0%	-2.9%	1.1%
	Track - Used Life - Ballast	60.7%	61.7%	61.5%	62.1%	56.1%	59.5%	59.9%	60.2%	59.5%	58.8%	58.0%	-0.8%	-1.5%	-2.0%	-3.3%	1.9%
Signalling	Signalling Condition Index (SICA Remaining Life)	16.79	15.37	16.60	15.90	14.82	15.88	15.04	16.70	16.04	15.36	16.82	1.74	(1.33)	0.56	0.55	(2.00)
Telecoms	Telecoms - Remaining Life	56.6%	51.3%	41.5%	44.6%	48.0%	52.4%	52.4%	51.0%	50.3%	50.8%	49.0%	4.2%	0.3%	-8.8%	-6.2%	-1.0%
Electrical Power	EP - Remaining Life - Conductor Rail	62.0%	60.6%	61.6%	62.3%	59.8%	61.0%	59.7%	59.1%	58.4%	57.7%	56.9%	2.3%	1.5%	3.2%	4.6%	2.9%
	EP - Remaining Life - Overhead Line Equipment (OLE)																
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	50.7%	48.3%	49.4%	50.8%	55.8%	39.6%	39.6%	37.8%	36.9%	36.1%	35.2%	11.1%	10.5%	12.5%	14.7%	20.6%
	Light Maintenance Depot (LMD) - %age Remaining Life	41.6%	40.5%	40.4%	41.3%	36.9%	37.7%	37.0%	36.4%	35.7%	35.1%	34.4%	4.5%	4.1%	4.7%	6.2%	2.5%
Structures	Structures - PLBE Condition Banding	68.2	68.1	67.3	67.5	68.9	67.7	68.0	68.0	67.8	67.0	66.9	0.1	0.1	(0.6)	0.5	2.0
	Tunnel Condition Monitoring Index (TCMI)	86.1	86.4	86.3	86.2	83.3	84.5	84.0	83.5	83.0	82.5	82.0	2.1	2.9	3.3	3.7	1.3
Earthworks	Earthworks - Condition Banding	1.93	1.96	1.99	2.07	2.00	1.74	1.74	1.74	1.74	1.74	1.74	(0.19)	(0.22)	(0.25)	(0.33)	(0.26)
Drainage	Track Drainage - Condition Banding	1.35	1.49	1.76	1.73	2.80	2.70	2.80	2.90	3.00	2.90	2.80	1.45	1.41	1.24	1.17	-
	Earthwork/Structure Drainage - Condition Banding	1.53	1.70	2.14	2.19	2.50	2.10	2.30	2.50	2.70	2.60	2.50	0.77	0.80	0.56	0.41	-

Table 130 Sussex: track renewal volumes total

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	5	7	9	6	4	31	10	9	9	9	10	48	(5)	(2)	0	(3)	(6)	(17)
Complete (formation)	Track km	1	1	1	3	4	9	2	1	1	2	1	7	(1)	(1)	(1)	1	2	2
Rail Renewal	Track km	8	19	25	30	16	98	15	15	15	15	15	75	(7)	4	10	16	1	23
Single Rail	Track km	1	5	3	1	1	11	2	2	2	2	2	10	(1)	3	1	(1)	(1)	1
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km	0		15			15	6		53	45	45	148	(6)		(38)	(45)	(45)	(133)
Refurbishment																			
Heavy Refurbishment	Track km	7	1	2	4	0	13	1	1	1	1	1	5	6	(0)	1	3	(1)	8
Medium (concrete)	Track km		7	11	10	14	42	2	2	2	2	2	10	(2)	5	9	8	12	32
Medium (other)	Track km	2	3	2	2	0	8	9	9	9	9	9	45	(7)	(6)	(7)	(7)	(9)	(37)
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends			2			2	3	3	3	3	3	15	(3)	(1)	(3)	(3)	(3)	(13)
Full Renewal	Point Ends	11	25	3	6	20	65	17	19	17		21	74	(6)	6	(14)	6	(1)	(9)
Refurbishment																			
Heavy	Point Ends			10	10	24	22	66	15	15	16	15	13	74	(15)	(5)	(6)	9	9
Medium	Point Ends	42	42	44	30	30	188	21	21	21	21	20	104	21	21	23	9	10	84
Off Track																			
Fencing	m	5	19	9	8	11	52	20	20	20	20	20	101	(15)	(2)	(11)	(13)	(9)	(49)
Slab track	Track km																		

**Table 131: Sussex track renewal volumes
(route criticality 1)**

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line													
Conventional													
Steel Relay	Track km												
Complete Renewal	Track km												
Complete (formation)	Track km												
Rail Renewal	Track km												
Single Rail	Track km												
High Output													
Automated Ballast Cleaning (ABC)	Track km												
Rail Sleeper Relay	Track km												
Heavy Refurbishment	Track km												
Refurbishment													
Heavy Refurbishment	Track km												
Medium (concrete)	Track km												
Medium (other)	Track km												
Switches & Crossings													
S&C delivered													
Abandonment	Point Ends												
Full Renewal	Point Ends												
Refurbishment													
Heavy	Point Ends												
Medium	Point Ends												
Off Track													
Slab track	Track km												

**Table 132: Sussex track renewal volumes
(route criticality 2)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	3	4	3	3	1	13	7	7	7	6	6	31	(4)	(3)	(4)	(3)	(5)	(18)
Complete (formation)	Track km	0	1	1	1	2	4	1	1	1	1	1	5	(1)	(1)	(1)	(0)	1	(1)
Rail Renewal	Track km	3	9	12	14	8	46	7	7	7	7	7	36	(4)	2	5	7	1	10
Single Rail	Track km	1	4	2	1	1	8	2	2	2	2	2	8	(1)	2	1	(0)	(1)	1
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km							2	2	5	5	5	19	(2)	(2)	(5)	(5)	(5)	(19)
Refurbishment																			
Heavy Refurbishment	Track km	0					0							0					0
Medium (concrete)	Track km	7	11	10	14	42		2	2	2	2	2	10	(2)	5	9	8	12	32
Medium (other)	Track km	1	0	0	0	0	1	0	0	0	0	0	0	1	(0)	(0)	(0)	(0)	0
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends		1				1		2		3		5	(2)	1	(3)			(4)
Full Renewal	Point Ends	11	25	3	6	20	65	17	19	17		21	74	(6)	6	(14)	6	(1)	(9)
Refurbishment																			
Heavy	Point Ends	6	6	13	12	37		11	6	8	8	8	41	(11)	(0)	(2)	5	4	(4)
Medium	Point Ends	20	19	20	14	14	87	8	10	10	10	10	48	12	9	10	4	4	39
Off Track																			
Slab track	Track km																		

**Table 133: Sussex track renewal volumes
(route criticality 3)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km																			
Complete Renewal	Track km	0	1	2	0	1	5	2	1		2	1	6	(2)	1	2	(2)	(0)	(1)	
Complete (formation)	Track km							0			0	0	1	(0)			2	2	3	
Rail Renewal	Track km	1	1	1	2	1	6	1	1	1	1	1	4	0	0	1	1	0	2	
Single Rail	Track km	0	1	0	0	0	1	0	0	0	0	0	1	(0)	0	0	(0)	(0)	0	
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			
Rail Sleeper Relay	Track km																			
Heavy Refurbishment	Track km			15			15		2	5	5	5	17	(2)	10	(5)	(5)	(2)		
Refurbishment																				
Heavy Refurbishment	Track km	6	0	1	2	0	8	0	0	0	0	0	2	5	(0)	1	1	(0)	6	
Medium (concrete)	Track km																			
Medium (other)	Track km	1	0	0	0	0	2	2	2	2	2	2	10	(2)	(1)	(2)	(2)	(2)	(9)	
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends																			
Full Renewal	Point Ends																			
Refurbishment																				
Heavy	Point Ends			2	2	4	4	12	3	2	3	3	2	13	(3)	(0)	(1)	1	2	(1)
Medium	Point Ends	16	10	11	7	7	51	5	5	5	5	5	25	11	5	6	2	2	26	
Off Track																				
Slab track	Track km																			

**Table 134: Sussex track renewal volumes
(route criticality 4)**

	BP18	Delivery Plan (mar 2014)						BP18 vs DP						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	2	1	3	2	0	9	2	1	1	2	1	7	0	(0)	2	0	(1)	2
Complete (formation)	Track km	0						0			0		1	(0)		(0)		(0)	
Rail Renewal	Track km	3	5	7	9	5	29	4	4	4	4	4	21	(1)	1	3	5	0	8
Single Rail	Track km	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	(0)	(0)	0
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km	0					0	4	4	9	9	9	35	(4)	(4)	(9)	(9)	(9)	(35)
Refurbishment																			
Heavy Refurbishment	Track km	1	0	1	2	0	4	1	1	1	0	0	3	0	(0)	1	1	(1)	1
Medium (concrete)	Track km							6	6	6	6	6	31	(4)	(4)	(5)	(5)	(6)	(25)
Medium (other)	Track km	2	2	1	1	0	6												
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends		1				1	1	3		3	3	10	(1)	(2)		(3)	(3)	(9)
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends		1	1	3	3	9	1	3	2	2	2	10	(1)	(2)	(1)	1	1	(1)
Medium	Point Ends	5	8	8	6	6	33	4	4	4	4	4	20	1	4	4	2	2	13
Off Track																			
Slab track	Track km																		

**Table 135: Sussex track renewal volumes
(route criticality 5)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	0	1	2	1	1	5												
Complete (formation)	Track km																		
Rail Renewal	Track km	0	3	5	6	3	17												
Single Rail	Track km		0	0	0	0	0												
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km	0	0	0	0	0	1												
Medium (concrete)	Track km																		
Medium (other)	Track km	0	0	0	0	0	0												
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends																		
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends	1	1	3	3	3	9												
Medium	Point Ends	1	4	5	3	3	16												
Off Track																			
Slab track	Track km																		

Table 136 Sussex: buildings and civils volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Structures																			
Underbridges	m ²	441	1,725	1,999	6,575	1,972	12,712	528	6,793	6,158	1,177	8,959	23,615	(87)	(5,068)	(4,159)	5,398	(6,987)	(10,903)
Overbridges (incl BG3)	m ²	1,000	1,548	1,940	4,953	325	9,766	2,074	17,775		300	510	20,659	(1,074)	(16,227)	1,940	4,653	(185)	(10,893)
Tunnels	m ²			1,490				260		1,850	3,340	2,500	7,950	(260)	1,490	(1,850)	(3,340)	(2,500)	(6,460)
Culverts	m ²		197	113				100	392	271	250	107	1,120	197	113			310	
Footbridges	m ²		51	668	45	436	1,200			500			500	(100)	(341)	397	(205)	329	80
Coastal & Estuary Defences	m													1,000	700	(442)			1,258
Retaining Walls	m ²	1,000	700	58			1,758							(69)	35	(10)	(50)	(76)	(170)
Earthworks	5-chain	45	169	119	62	26	421	114	134	129	112	102	591						
Track Drainage														68	40	180	710	998	
Renewal	lm		68	40	180	710	998							1,523	3,643	3,144	200	8,510	
Refurbishment	lm		1,523	3,643	3,144	200	8,510											179	179
New Build	lm				179		179												
EW Drainage														108	1,976	(155)	(105)	(130)	1,693
Renewal	lm	170	2,217				2,387	63	241	155	105	130	694	(190)	(156)	1,517	714	(90)	1,795
Refurbishment	lm	20	50	1,707	844		2,621	210	206	190	130	90	826	(89)	1,696	51	1,817	336	3,809
Maintenance	lm		1,745	100	1,866	385	4,096	89	49	49	49	49	287	175					
New Build	lm		175				175												
Franchised Stations																			
Footbridges	m ²	240	2,224	331	80	327	3,202	510	2,738	1,149	860	160	5,417	(270)	(514)	(818)	(780)	167	(2,215)
Train Sheds	m ²									1,132			1,132						(1,132)
Canopies	m ²		746	3,493	85		4,324	2,520	5,620	3,100	885	194	12,319	(2,520)	(4,874)	393	(800)	(194)	(7,995)
Platforms	m ²	13,417	9,346	7,372	1,515		31,650	3,551	18,330	7,335	10,456		39,672	9,866	(8,984)	37	(8,941)		(8,022)
Buildings	m ²	7,790	736	76			8,602							7,790	736	76			8,602
Lifts & Escalators	No.													6	2		8		
Managed Stations																			
Footbridges	m ²													2,184	3,656	(1,542)	(14,221)	(9,923)	
Train Sheds	m ²		2,184	3,656	2,826	1,747	10,413							(522)	532				10
Canopies	m ²		527	1,581			2,108												(13,500)
Platforms	m ²							2,500		5,500	5,500		13,500						
Buildings	m ²	6,182	7	730			6,919	730		160	706	990	2,586	5,452	7	570	(706)	(990)	4,333
Lifts & Escalators	No.													1	1				(1)
Light Maintenance Depots																			
Buildings	m ²		8,195				8,195								8,195				8,195
Depot Shed	m ²			9,008			9,008	3,700	3,700				7,400	(3,700)	(3,700)	9,008			1,608
Lineside Buildings																			
Buildings	m ²	1,168	325	118	118		1,729	2,009	2,009	2,009	2,009	2,009	10,045	(2,009)	(841)	(1,684)	(1,891)	(1,891)	(8,316)
MDU																			
Buildings	m ²																		

Table 137 Sussex: signalling renewal volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Full Conventional Resignalling	SEUs	70	20	82		124	296	228		154		382	
ERTMS Resignalling	SEUs											(159)	20
Partial Conventional Resignalling	SEUs	1				30	31	0	74	4	27	31	136
Targeted Component Renewal	SEUs		14	11	1	0	26	1	19	8	6	36	70
Modular Resignalling	SEUs											(1)	(5)
Level Crossing Renewals	No.	9	1			4	14	1	4	13	8	3	29
												8	(3)
												(13)	(8)
												1	(15)

Table 138 Sussex: elec'n and plant renewal volumes

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Contact Systems																			
Overhead Line Equipment (OLE) Re-wiring	wire runs																		
Mid-life Refurbishment	wire runs																		
Structure Renewals	No.																		
Conductor rail																			
Renewals	km	17	13	7	2	10	50	7	2	2	2	1	13	10	12	6	0	9	37
AC distribution																			
HV Switchgear Renewal	No.																		
Booster Transformers	No.																		
DC distribution																			
HV Switchgear Renewal	No.					3	5	8						3	5	8			
HV Cables	km	2	13				16	18				18	(15)	13		(2)			
LV Switchgear Renewal	No.	57	38	29	1		125	33	19	20	20	92	24	19	9	(19)	33		
LV Cables	km			5	4		9	3	3	1	1	1	(3)	(3)	4	3	(1)	(0)	
Transformer Rectifiers	No.	3	1		1		5						3	1		1		5	
Fixed plant																			
Signalling Power Cable Renewal	km					4	4	40	4		12	56	(40)	(4)		(12)	4	(52)	
Principle Supply Point Renewal	No.			26			26	4	6		2	12	(4)	20		(2)		14	
Rail Heating																			
Points Heating Renewal	Point End		29			29	18	18	18	18	18	90	(18)	11	(18)	(18)	(18)	(61)	

Table 139 Sussex: telecoms renewal volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Station Information and Surveillance Systems													
Customer Information Systems	No.			130	449	579		128	70	47	245		(128)
Public Address	No.	294		701	1,766	2,761		864	503	183	161	1,711	(570)
CCTV	No.			10	10			648	752	290	50	1,740	(648)
Clocks	No.							40			40		(40)
Operational Comms													
PABX Concentrator	No. of Lines			231	231			767			767		(767)
Processor Controlled Concentrator	No. of Lines							62			62		(62)
Driver-Only Operation: CCTV	No.							34			34		(34)
Driver-Only Operation: Mirrors	No.			5	5			5			5		(5)
Public Emergency Telephone System	No.							12			12		(12)
Human Machine Interface Large	No.			3	3								3
Human Machine Interface Small	No.												-9
Radio System	No.												
Power Systems	No.												

Table 140 Sussex: maintenance volumes

	Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5		
Track	Plain Line Tamping (km)	Km	MNT004	484	271	228	223	290	1,497	267	267	267	267	267	1,336	217	4	(39)	(44)	23	162
	Plain Line Stoneblowing (km)	Km	MNT005	296	80	226	50	75	728	160	160	105	105	105	635	136	(80)	121	(55)	(30)	93
	Manual Wet Bed Removal	Bay	MNT006	1,379	588	643	554	573	3,737	180	180	180	180	180	900	1,199	408	463	374	393	2,837
	Mechanical Wet Bed Removal	Bay	MNT012	957	416	625	1,044	639	3,681	606	604	600	599	610	3,019	351	(188)	25	445	29	662
	S&C Tamping	Point End	MNT007	241	168	147	75	218	850	282	282	275	270	270	1,379	(41)	(114)	(128)	(195)	(52)	(529)
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	1,712	1,896	2,310	1,433	1,994	9,345	759	763	763	767	773	3,825	953	1,133	1,547	666	1,221	5,520
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	9,944	12,454	10,599	6,544	8,860	48,401	5,295	5,295	5,295	5,295	5,295	26,475	4,649	7,159	5,304	1,249	3,565	21,926
	Mechanical Reprofiling of Ballast	Mile	MNT017	22	25	13	5,357	1	5,418	92	93	93	93	97	468	(70)	(68)	(80)	5,264	(96)	4,950
	Manual Reprofiling of Ballast	Rail Yards	MNT020	183,593	249,128	198,099	103,368	140,724	874,911	85,000	85,000	85,000	85,000	85,000	425,000	98,593	164,128	113,099	18,368	55,723	449,911
	Replacement of Pads & Insulators	Sleeper	MNT029	29,655	41,021	39,187	15,104	12,599	137,565	52,000	46,800	42,120	37,908	34,117	212,945	(22,345)	(5,779)	(2,933)	(22,804)	(21,519)	(75,380)
	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	107,595	88,195	144,930	112,077	106,520	559,317	85,100	80,000	75,050	70,000	68,000	378,150	22,495	8,195	69,880	42,077	38,520	181,167
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	2,977	3,029	4,638	3,686	3,846	18,176	2,000	1,800	1,600	1,400	1,200	8,000	977	1,229	3,038	2,286	2,646	10,176
	S&C Renew Crossing	Crossing	MNT120	48	51	42	46	37	224	38	38	38	38	38	190	10	13	4	8	(1)	34
	S&C Maintenance	Point End	MNT122	10,926	11,132	12,798	12,098	8,060	55,012	2,871	2,800	2,730	2,592	2,527	13,520	8,055	8,332	10,068	9,506	5,533	41,492
	S&C Renew Half Set of Switches	H/S Switch	MNT123	106	36	61	35	39	277	40	40	40	41	43	204	66	(4)	21	(6)	(4)	73
	S&C Stoneblowing	Point End	MNT124	14	14	18	20	10	76	50	50	50	50	50	250	(36)	(36)	(32)	(30)	(40)	(174)
	Rail Grinding Plain Line	Miles	MNT309	310	752	89	181	1,332	266	266	266	266	266	1,330	44	486	(266)	(177)	(85)	2	
	Rail Grinding S&C	Point End	MNT310	136	120	1,692	132	84	2,164	168	168	168	168	168	840	(32)	(48)	1,524	(36)	(84)	1,324
	Fences & Boundary Walls	Yard	MNT072	25,367	12,228	12,054	10,462	12,675	72,786	33,091	33,053	33,014	32,967	32,984	165,109	(7,724)	(20,825)	(20,960)	(22,505)	(20,309)	(92,323)
	Drainage	Yard	MNT073	32,708	40,746	41,589	40,358	14,535	169,937	20,000	20,000	20,000	20,000	20,000	100,000	12,708	20,746	21,589	20,358	(5,465)	69,937
	Level Crossing Management - Off Track	Each	MNT075	1,174	2,874	4,534	70,199	1,057	79,838	749	749	749	749	749	3,745	425	2,125	3,785	69,450	308	76,093
Offtrack	Vegetation Removal of Boundary Trees	Number	MNT081	426	686	6		5,000	6,118	700	700	700	700	700	3,500	(274)	(14)	(694)	(700)	(700)	(3,381)
	Vegetation Management by Train	Mile	MNT082	119					119	700	700	700	700	700	3,500	(581)	(700)	(700)	(700)	(700)	(3,381)
	Vegetation Management (manual)	Square Yard	MNT170	171,687	305,368	172,924	89,624		739,603	220,000	220,000	220,000	220,000	220,000	1,100,000	(48,313)	85,368	(47,076)	(130,376)	(220,000)	(360,397)
	Vegetation Management (mechanised)	Mile	MNT171							70	70	70	70	70	350	(70)	(70)			(140)	
	Vegetation Management (mechanised)	Square Metre	MNT171						416,404	1,023,168	179,705	1,619,277				(5,122)	3,553	6,472	315	(3,391)	1,827
	Maintain Conductor Rail	Various	MNT206	10,100	18,775	21,542	15,159	11,304	76,880	15,222	15,222	15,070	14,844	14,695	75,053	2,052	6,219	14,196	7,241	5,168	34,877
	Maintain DC Traction Power Supplies	Each	MNT209	6,116	10,283	18,260	11,305	9,232	55,197	4,064	4,064	4,064	4,064	4,064	20,320	28	42	230	286	194	780
	Maintain OHL Components	Various	MNT211	28	42	230	286	194	780	9,370	9,370	9,370	9,370	9,370	46,850	(4,538)	756	1,499	804	(1,503)	(2,982)
	Maintain Points Heating	Each	MNT212	4,832	10,126	10,869	10,174	7,867	43,868	1,618	1,618	1,618	1,618	1,618	8,090	(1,022)	1,020	1,084	1,437	8,842	11,361
Civils	Maintain Signalling Power Supplies	No.	MNT213	596	2,638	2,702	3,055	10,460	19,451	1,618	1,618	1,618	1,618	1,618	8,090	813	(512)	182	108	(919)	(328)
	Visual Examinations	No.	MNT226a	2,523	1,290	1,975	1,931	907	8,626	1,710	1,802	1,793	1,823	1,826	8,954	(222)	42	2,165	(2,477)	(155)	(646)
	Tunnel Examinations	No. minor elements	MNT220	5,824	6,088	8,211	3,569	5,891	29,583	6,046	6,046	6,046	6,046	6,046	30,229	5	(45)	(134)	(90)	(22)	(286)
	Detailed Examinations	No.	MNT221	380	238	246	172	237	1,273	375	283	380	262	259	1,559	(1)	(32)	(3)	(59)	28	(67)
	Underwater Examinations	No.	MNT222	24	6	97	19	66	212	25	38	100	78	38	279	(10)	33	(14)	3	(24)	(12)
	Ancillary Structure Examinations	Number detailed	MNT223	4	65	188	59	20	336	14	32	202	56	44	348	(3)	(29)	(33)	(35)	(30)	(130)
	Hidden Critical Element Examinations	No.	MNT224	31	25	29	18	16	119	34	54	62	53	46	249	(212)	(127)	(293)	(424)	(319)	(1,375)
	Load Carrying Assessments	Number spans	MNT225	153	169	61	75	52	510	365	296	354	499	371	1,885	(19)	5	(757)	(95)	1,018	152
Buildings	Visual Examinations	Each	MNT226	868	892	127	789	1,903	4,579	887	887	884	884	885	4,427	3	2	4	(8)	(5)	(4)
	5 Yearly Examinations	Each	MNT227	40	37	42	30	32	181	37	35	38	38	37	185						

Table 141 Wales: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	1.55	1.87	1.10	1.46	1.65	2.16	2.16	2.16	2.16	2.16	2.16	0.61	0.29	1.06	0.70	0.51
	Track geometry (Poor Track Geometry)	1.57%	1.43%	1.38%	1.41%	1.62%	1.53%	1.58%	1.58%	1.58%	1.58%	1.58%	0.01%	0.15%	0.20%	0.17%	-0.04%
	Track failures (service affecting)	243	228	149	140	172	163	139	132	130	130	130	(104)	(96)	(19)	(10)	(42)
Signalling	Signalling failures (service affecting)	907	977	866	814	840	868	885	888	870	850	847	(22)	(89)	4	36	7
Telecoms	Telecoms failures (service affecting)	612	346	261	259	267	152	222	181	144	131	129	(390)	(165)	(117)	(128)	(138)
Electrical Power	AC traction power failures (service affecting)	-	-	-	-	10	-	-	-	-	8	35	-	-	-	8	25
	DC traction power failures (service affecting)																
	Non traction operational power supply failures (service affecting)	14	3	6	5	14	28	28	28	28	28	28	14	25	22	23	14
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	162	159	183	218	193	279	232	216	227	251	295	70	57	44	33	102
Structures	Number of open faults with a risk score ≥12	170	77	70	71	90	446	265	246	211	161	133	95	169	141	90	43
Earthworks	Earthwork failures	4	8	9	12	11	6	6	6	6	6	5	2	(2)	(3)	(6)	(5)
Points	Points failures (service affecting)	180	196	183	190	185	181	169	167	166	165	164	(11)	(29)	(17)	(25)	(21)

Table 142 Wales: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	55.3%	55.3%	55.5%	55.1%	57.0%	52.9%	54.0%	55.3%	56.1%	56.8%	57.1%	-1.3%	0.0%	0.6%	1.7%	0.1%
	Track - Used Life - Switch & Crossings	56.8%	56.8%	55.5%	54.8%	40.9%	53.5%	50.2%	46.9%	42.0%	40.7%	40.5%	-6.6%	-9.9%	-13.5%	-14.1%	-0.4%
	Track - Used Life - Sleepers	71.4%	72.0%	72.5%	72.2%	72.7%	69.9%	71.0%	72.2%	72.9%	73.2%	73.4%	-0.4%	0.2%	0.4%	1.0%	0.7%
	Track - Used Life - Ballast	53.6%	53.2%	53.5%	54.0%	54.1%	53.5%	54.3%	54.8%	55.2%	55.5%	56.2%	0.6%	1.6%	1.7%	1.5%	2.1%
Signalling	Signalling Condition Index (SICA Remaining Life)	10.73	11.51	13.00	12.90	17.83	11.62	14.87	15.56	18.26	17.87	16.98	(4.13)	(4.05)	(5.26)	(4.97)	0.85
Telecoms	Telecoms - Remaining Life	73.2%	72.2%	55.6%	60.2%	52.2%	78.0%	72.5%	66.6%	60.9%	57.7%	52.0%	0.7%	5.6%	-5.3%	2.5%	0.2%
Electrical Power	EP - Remaining Life - Conductor Rail																
	EP - Remaining Life - Overhead Line Equipment (OLE)																
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	43.3%	45.1%	45.1%	47.3%	49.4%	31.4%	31.4%	30.4%	29.9%	29.3%	28.8%	11.9%	14.7%	15.2%	18.0%	20.6%
	Light Maintenance Depot (LMD) - %age Remaining Life	48.0%	48.1%	48.1%	66.3%	44.8%	44.8%	44.0%	43.1%	42.3%	41.5%	40.6%	4.1%	5.0%	5.8%	24.8%	4.1%
Structures	Structures - PLBE Condition Banding	61.2	60.9	60.5	60.4	62.2	61.6	61.6	61.5	61.5	61.5	61.6	(0.3)	(0.6)	(1.1)	(1.1)	0.6
	Tunnel Condition Monitoring Index (TCMI)	82.5	79.2	81.6	80.7	85.0	81.8	82.2	82.5	82.9	83.2	83.5	0.3	(3.3)	(1.3)	(2.5)	1.5
Earthworks	Earthworks - Condition Banding	1.97	1.96	1.95	1.95	2.01	2.02	2.01	2.00	1.99	1.98	1.97	0.04	0.04	0.04	0.03	(0.04)
Drainage	Track Drainage - Condition Banding	1.58	1.64	1.77	1.82	1.58							(1.58)	(1.64)	(1.77)	(1.82)	(1.58)
	Earthwork/Structure Drainage - Condition Banding	1.58	1.67	1.82	1.89	1.58							(1.58)	(1.67)	(1.82)	(1.89)	(1.58)

Table 143 Wales: track renewal volumes total

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km	0	10	1	9	1	21								(0)	10	(12)	9	1	8
Complete Renewal	Track km	9	6	12	8	3	39	11		1		4	13	(2)	6	11	8	(1)	23	
Complete (formation)	Track km	0	0	1	1		3							0	0	1	1		3	
Rail Renewal	Track km		14	18	17	14	64	4	7	7	7	6	31	(4)	7	11	10	8	33	
Single Rail	Track km		6	3	2	0	11							6	3	2	(0)		11	
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			
Rail Sleeper Relay	Track km				10	9	19													
Heavy Refurbishment	Track km		22	12	10		43													
Refurbishment																				
Heavy Refurbishment	Track km	19	2	4	7	0	32	10	18	18	18	18	80	9	(15)	(14)	(11)	(17)	(48)	
Medium (concrete)	Track km	22	25	24	23	15	109	20	20	20	20	20	100	2	5	4	3	(5)	9	
Medium (other)	Track km	11	19	21	17	13	80	20	20	20	20	20	100	(9)	(1)	1	(3)	(7)	(20)	
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	5	34	30	6	38	113	36	27	25	4		92	(31)	7	5	2	38	21	
Full Renewal	Point Ends	10	14	19	12	3	58	24	21	25	4		74	(14)	(7)	(6)	8	3	(16)	
Refurbishment																				
Heavy	Point Ends	6	5				11	35	33	42	41	37	188	(29)	(28)	(42)	(41)	(37)	(177)	
Medium	Point Ends	13	24	52	41	11	141	24	24	26	27	23	124	(11)		26	14	(12)	17	
Off Track																				
Fencing	m	68	68	102	54	50	342	132	148	136	136	136	687	(64)	(79)	(34)	(82)	(86)	(344)	
Slab track	Track km																			

Table 144: Wales track renewal volumes (route criticality 1) BP18

		BP18					Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	3		7	2		11							3		7	2	11	
Complete (formation)	Track km					1		1							1		1		
Rail Renewal	Track km				0			0							0		0		
Single Rail	Track km																		
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km																		
Medium (concrete)	Track km																		
Medium (other)	Track km																		
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends																		
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends																		
Medium	Point Ends																		
Off Track																			
Slab track	Track km																		

Table 145: Wales track renewal volumes (route criticality 2) BP18

		BP18					Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km																		
Complete (formation)	Track km																		
Rail Renewal	Track km																		
Single Rail	Track km																		
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km																		
Medium (concrete)	Track km																		
Medium (other)	Track km																		
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends																		
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends																		
Medium	Point Ends																		
Off Track																			
Slab track	Track km																		

Table 146: Wales track renewal volumes (route criticality 3) BP18

		BP18						Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																				
Conventional																				
Steel Relay	Track km																			
Complete Renewal	Track km	1	6	5	5	0	17	11		1		4	16	(10)	6	4	5	(4)	1	
Complete (formation)	Track km	0	0	1	1									0	0	1	1		2	
Rail Renewal	Track km			4	5	4	17	2	2	2	2	8		2	3	2	2		9	
Single Rail	Track km			6	3	2	11							6	3	2	(0)		11	
High Output																				
Automated Ballast Cleaning (ABC)	Track km																			
Rail Sleeper Relay	Track km					9	9			16			16		(16)	9		(7)		
Heavy Refurbishment	Track km		21	2	10		33							21	2	10			33	
Refurbishment																				
Heavy Refurbishment	Track km	2	1	1	2	0	5	5	5	5	6	21		2	(4)	(4)	(3)	(6)	(16)	
Medium (concrete)	Track km	9	8	8	5		31	7	7	7	7	35		(7)	2	1	1	(2)	(4)	
Medium (other)	Track km																			
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	17	23	3	19	62		35	4	6		45		(35)	13	17	3	19	17	
Full Renewal	Point Ends	0	10	0		11				2		2		0	8	0			9	
Refurbishment																				
Heavy	Point Ends		2			2		19	23	13	11	12	78		(19)	(21)	(13)	(11)	(12)	(76)
Medium	Point Ends	9	19	15	4	46		5	9	12	12	7	45		(5)	(0)	7	3	(3)	1
Off Track																				
Slab track	Track km																			

Table 147: Wales track renewal volumes (route criticality 4) BP18

		BP18						Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5		
Plain Line																					
Conventional																					
Steel Relay	Track km				0		0										0		0		
Complete Renewal	Track km				0	1	1	2								(0)	1	1	2		
Complete (formation)	Track km																				
Rail Renewal	Track km			6	7	7	6	25								2	3	2	3	12	
Single Rail	Track km																(2)	3	5	4	13
High Output																					
Automated Ballast Cleaning (ABC)	Track km															17		17			
Rail Sleeper Relay	Track km															25		25			
Heavy Refurbishment	Track km			1	9	0		10								15		15			
Refurbishment																					
Heavy Refurbishment	Track km			11	1	1	3	0	16							5	8	5	8	6	31
Medium (concrete)	Track km			12	9	8	8	5	42							7	7	7	7	7	35
Medium (other)	Track km			1	9	10	9	6	36							10	10	10	10	10	50
Switches & Crossings																					
S&C delivered																					
Abandonment	Point Ends				7	5	1	8	21							1	18		19		
Full Renewal	Point Ends				8	9	6		22							24	15	2	41		
Refurbishment																					
Heavy	Point Ends			1	1			2								3	12	15	12	42	
Medium	Point Ends			2	5	11	9	2	29							5	7	7	7	26	
Off Track																					
Slab track	Track km																				

Table 148: Wales track renewal volumes (route criticality 5) BP18

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	0	10	1	9	1	21												
Complete Renewal	Track km	5	1	0	0	2	9												
Complete (formation)	Track km			0			0												
Rail Renewal	Track km		5	7	6	5	23												
Single Rail	Track km																		
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km	6	1	2	2	0	11												
Medium (concrete)	Track km	11	8	7	7	5	36												
Medium (other)	Track km	9	9	10	9	6	44												
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	5	10	2	2	12	30												
Full Renewal	Point Ends	10	6		6	3	25												
Refurbishment																			
Heavy	Point Ends	5	2				7												
Medium	Point Ends	11	10	22	18	5	66												
Off Track																			
Slab track	Track km																		

Table 149: Wales: buildings and civils volumes

		BP18						Delivery Plan (mar 2014)						BP18 vs DP								
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5			
Structures																						
Underbridges	m ²	6,243	10,882	12,077	6,388	4,502	40,092	6,540	7,870	9,650	7,650	7,600	39,310	(297)	3,012	2,427	(1,262)	(3,098)	782			
Overbridges (incl BG3)	m ²		456	1,623			2,079	2,100	710	720	720	720	4,970	(2,100)	(254)	903	(720)	(720)	(2,891)			
Tunnels	m ²				11	786	797	600	2,100	2,100	2,100	2,100	9,000	(600)	(2,100)	(2,100)	(2,090)	(1,314)	(8,204)			
Culverts	m ²		137	177	394	88	797	284	284	284	284	284	1,420	(284)	(147)	(107)	110	(196)	(623)			
Footbridges	m ²		666		342	383	1,391	30	190	120	190	120	650	(30)	476	(120)	152	263	741			
Coastal & Estuary Defences	m	6,611	560		4,810		11,981	50	200	300	300	200	1,050	6,561	360	(300)	4,510	(200)	10,931			
Retaining Walls	m ²		1,217	1,219	553	120	3,109	530	530	530	530	530	2,650	(530)	687	689	23	(410)	459			
Earthworks	5-chain	18	574	458	542	394	1,986	285	282	280	278	282	1,408	(267)	292	178	264	112	578			
Track Drainage																						
Renewal	lm																					
Refurbishment	lm	8,449	5,666	8,438	6,265	4,495	33,313	6,312	6,312	6,312	6,312	6,312	31,560	2,137	(646)	2,126	(47)	(1,817)	1,753			
New Build	lm						4	4										4	4			
EW Drainage																						
Renewal	lm		530	-129	10		410	500	513	833	851	858	3,556	(500)	16	(963)	(841)	(858)	(3,146)			
Refurbishment	lm	85	276	9	197	83	650	231	216	266	261	176	1,150	(146)	60	(257)	(64)	(94)	(500)			
Maintenance	lm		2,081	196			2,277	2,228	2,366	2,063	2,142	2,169	10,968	(2,228)	(285)	(1,866)	(2,142)	(2,169)	(8,691)			
New Build	lm	182	237				419							182	237				419			
Franchised Stations																						
Footbridges	m ²				188		1,085	1,273	626	151	495	475	545	2,292	(626)	(151)	(307)	(475)	540	(1,019)		
Train Sheds	m ²				1,500			1,500	5,080		800			5,880	(5,080)	1,500	(800)			(4,380)		
Canopies	m ²	156	925	2,460		5,860	9,401	3,197	1,504	3,816	3,489	1,570	13,576	(3,041)	(579)	(1,356)	(3,489)	4,290	(4,175)			
Platforms	m ²	292	80	1,495	372	380	2,619	818	2,347	1,974	2,302	478	7,919	(526)	(2,267)	(479)	(1,930)	(98)	(5,300)			
Buildings	m ²				154		1,959	2,113	438	605	1	405	5	1,454	(438)	(605)	153	(405)	1,954	659		
Lifts & Escalators	No.									1				2	3				(1)	(2)	(3)	
Managed Stations																						
Footbridges	m ²																					
Train Sheds	m ²																					
Canopies	m ²																					
Platforms	m ²																					
Buildings	m ²																					
Lifts & Escalators	No.																					
Light Maintenance Depots																						
Buildings	m ²								60,000				60,000	(60,000)						(60,000)		
Depot Shed	m ²								750				750	(750)						(750)		
Lineside Buildings									1,000				1,000	(1,000)						1,000		
MDU																						
Buildings	m ²	203	1,255	591			2,049								203	1,255	591			2,049		

Table 150: Wales: signalling renewal volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP															
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5				
Full Conventional Resignalling	SEUs	114	99	264		150	627	364	48	112	26		550	(250)	51	152	(26)	150	77				
ERTMS Resignalling	SEUs								2							(2)			(2)				
Partial Conventional Resignalling	SEUs										6							(6)		(6)			
Targeted Component Renewal	SEUs																						
Modular Resignalling	SEUs					95	95			132	323			455									
Level Crossing Renewals	No.					2	4	1	4	11		6	6	13	3	2	30	(4)	(6)	(9)	(2)	2	(19)

Table 151: Wales: elec'n and plant renewal volumes

	BP18							Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Contact Systems																			
Overhead Line Equipment (OLE) Re-wiring	wire runs																		
Mid-life Refurbishment	wire runs																		
Structure Renewals	No.																		
Conductor rail																			
Renewals	km																		
AC distribution																			
HV Switchgear Renewal	No.																		
Booster Transformers	No.																		
DC distribution																			
HV Switchgear Renewal	No.																		
HV Cables	km																		
LV Switchgear Renewal	No.																		
LV Cables	km																		
Transformer Rectifiers	No.																		
Fixed plant																			
Signalling Power Cable Renewal	km							8	8									8	8
Principle Supply Point Renewal	No.									3				3		(3)		(3)	
Rail Heating																			
Points Heating Renewal	Point End	4			10	14		6	4		2		12		(2)	(4)	(2)	10	2

Table 152: Wales: telecoms renewal volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP					
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Station Information and Surveillance Systems																		
Customer Information Systems	No.									6	20	26				(6)	(20)	(26)
Public Address	No.	14			61	75				22		22	14		(22)	61	53	
CCTV	No.										95	95				(95)	(95)	
Clocks	No.																	
Operational Comms																		
PABX Concentrator	No. of Lines																	
Processor Controlled Concentrator	No. of Lines																	
Driver-Only Operation: CCTV	No.																	
Driver-Only Operation: Mirrors	No.																	
Public Emergency Telephone System	No.			3	3				3		3			(3)	3	0		
Human Machine Interface Large	No.																	
Human Machine Interface Small	No.																	
Radio System	No.									8	10	18						
Power Systems	No.			22	22									(8)	12	4		

Table 153: Wales: maintenance volumes

		Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP									
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5				
Track	Plain Line Tamping (km)	Km	MNT004	245	101	87	133	116	682	130	130	130	130	130	650	115	(29)	(43)	3	(14)	32			
	Plain Line Stoneblowing (km)	Km	MNT005	283	775	323	197	262	1,840	127	127	127	127	127	633	157	648	196	70	136	1,208			
	Manual Wet Bed Removal	Bay	MNT006	3,525	3,868	3,076	2,894	3,253	16,616	1,584	1,584	1,584	1,584	1,584	7,919	1,941	2,284	1,492	1,310	1,669	8,697			
	Mechanical Wet Bed Removal	Bay	MNT012	553	517	530	349	527	2,476							553	517	530	349	527	2,476			
	S&C Tamping	Point End	MNT007	184	43	39	63	59	388	265	265	265	265	265	1,325	(81)	(222)	(226)	(202)	(206)	(937)			
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	892	910	1,395	1,628	1,560	6,385	838	838	838	838	838	4,188	54	72	557	790	722	2,197			
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	4,197	6,716	4,429	5,347	4,343	25,031	4,041	4,041	4,041	4,041	4,041	20,203	156	2,675	389	1,306	302	4,829			
	Mechanical Reprofiling of Ballast	Mile	MNT017	143	261	179	122	111	815	179	179	179	179	179	895	(36)	82	0	(57)	(68)	(79)			
	Manual Reprofiling of Ballast	Rail Yards	MNT020	102,671	105,749	118,543	146,885	53,183	527,032	59,039	30,079	30,079	30,079	30,079	179,353	43,632	75,671	88,465	116,807	23,105	347,679			
	Replacement of Pads & Insulators	Sleeper	MNT029	18,303	45,692	46,074	45,046	21,230	176,345	18,144	18,144	18,144	18,144	18,144	90,721	159	27,548	27,929	26,902	3,086	85,624			
	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	83,831	74,238	84,548	95,709	204,113	542,439	25,540	16,290	16,290	16,290	16,290	90,700	58,291	57,948	68,258	79,419	187,823	451,739			
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	54,724	52,294	50,039	72,692	41,032	270,780	52,800	52,800	52,800	52,800	52,800	264,001	1,924	(507)	(2,761)	19,891	(11,768)	6,779			
	S&C Renew Crossing	Crossing	MNT120	21	20	21	24	16	102							21	20	21	24	16	102			
	S&C Maintenance	Point End	MNT122	36,100	37,066	34,732	33,822	33,969	175,689	37,793	37,793	37,793	37,793	37,793	188,965	(1,693)	(727)	(3,061)	(3,971)	(3,824)	(13,276)			
	S&C Renew Half Set of Switches	H/S Switch	MNT123	10	19	17	62	18	126	21	21	21	21	21	105	(11)	(2)	(4)	41	(3)	21			
	S&C Stoneblowing	Point End	MNT124	12	49	42	44	61	208	116	116	116	116	116	580	(104)	(67)	(74)	(72)	(55)	(372)			
	Rail Grinding Plain Line	Miles	MNT309	115	1,312	350	183	101	2,061	230	230	230	230	230	1,150	(115)	1,082	120	(47)	(129)	911			
	Rail Grinding S&C	Point End	MNT310	150	120	131	197	166	764	300	300	300	300	300	1,500	(150)	(180)	(169)	(103)	(134)	(736)			
	Fences & Boundary Walls	Yard	MNT072	96,314	128,798	146,804	77,036	81,664	530,616	67,000	66,000	65,000	64,000	63,000	325,001	29,314	62,798	81,804	13,036	18,664	205,615			
	Drainage	Yard	MNT073	12,001	33,683	19,738	30,171	6,301	101,893	20,427	20,427	20,427	20,427	20,427	102,135	(8,426)	13,256	(689)	9,744	(14,126)	(241)			
	Level Crossing Management - Off Track	Each	MNT075	1,808	3,361	13,732	15,700	2,197	36,797	1,493	1,493	1,493	1,493	1,493	7,466	315	1,868	12,239	14,206	704	29,332			
	Vegetation Removal of Boundary Trees	Number	MNT081	3,558	8,973	652		43,662	56,845	2,000	2,000	2,000	2,000	2,000	9,999	1,558	6,973	(1,348)	(2,000)	41,662	46,847			
	Vegetation Management by Train	Mile	MNT082	81	229				310							81	229			310				
	Vegetation Management (manual)	Square Yard	MNT170	300,004	713,667	303,340	498,078		1,815,090	336,010	336,010	336,010	336,010	336,010	1,680,051	(36,006)	377,657	(32,670)	162,068	(336,010)	135,039			
	Vegetation Management (mechanised)	Mile	MNT171	353	751				1,104	751	751	751	751	751	3,756	(398)	(0)			(398)				
	Vegetation Management (mechanised)	Square Metre	MNT171			1,995,443	3,915,966	1,311,671	7,223,080															
Electrical Power	Maintain Conductor Rail	Various	MNT206																					
	Maintain DC Traction Power Supplies	Each	MNT209			68	164	30	262			30	30	30	120		38	134	(30)	142				
	Maintain OHL Components	Various	MNT211			2	415	103	1,991	2,511						2	415	(11,897)	(10,009)	(21,489)				
	Maintain Points Heating	Each	MNT212			7,610	3,820	3,836	3,776	6,907	25,949		7,368	7,368	7,480	7,760	29,976	7,610	(3,548)	(3,532)	(3,704)	(853)	(4,027)	
	Maintain Signalling Power Supplies	No.	MNT213			2,456	2,367	2,343	3,125	3,823	14,114		2,471	2,471	2,471	2,471	9,884	2,456	(104)	(128)	654	1,352	4,230	
	Visual Examinations	No.	MNT226a			5,611	6,737	7,752	6,995	183	27,278		7,905	8,002	8,485	8,041	8,140	40,571	(2,294)	(1,265)	(733)	(1,046)	(7,957)	(13,293)
	Tunnel Examinations	Number minor element	MNT220			8,535	54	137	129	182	9,037		7,764	7,764	7,764	7,764	38,821	771	(7,710)	(7,627)	(7,635)	(7,582)	(29,784)	
	Detailed Examinations	No.	MNT221			815	1,463	985	907	1,191	5,361		1,862	1,765	1,282	1,726	1,627	8,260	(1,047)	(302)	(297)	(819)	(436)	(2,899)
	Underwater Examinations	No.	MNT222			164	204	90	209	179	846		235	180	116	242	180	953	(71)	24	(26)	(33)	(1)	(107)
	Ancillary Structure Examinations	Number detailed	MNT223			49	138	70	133	86	476		20	177	7	217	67	488	29	(39)	63	(84)	19	(12)
Buildings	Hidden Critical Element Examinations	No.	MNT224			45	74	54	75	96	344		147	25	75	148	43	438	(102)	49	(21)	(73)	53	(94)
	Load Carrying Assessments	Number spans	MNT225			310	276			586			915	792	983	993	783	4,466	(605)	(516)	(983)	(993)	(783)	(3,880)
	Visual Examinations	Each	MNT226			169	179	213	186	6,616	7,363		345	355	342	331	342	1,715	(176)	(176)	(129)	(145)	6,274	5,648
	5 Yearly Examinations	Each	MNT227			23	59	54	63	64	263		65	55	68	79	68	335	(42)	4	(14)	(16)	(4)	(72)

Table 154 Wessex: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	3.84	2.45	2.16	1.68	2.50	3.72	3.72	3.72	3.72	3.72	3.72	(0.12)	1.27	1.56	2.04	1.22
	Track geometry (Poor Track Geometry)	2.57%	2.38%	2.23%	2.12%	2.30%	3.40%	3.34%	3.28%	3.22%	3.16%	3.10%	0.77%	0.90%	0.99%	1.04%	0.80%
	Track failures (service affecting)	647	589	603	612	572	874	800	775	750	725	700	153	186	147	113	128
Signalling	Signalling failures (service affecting)	1,273	1,165	1,248	1,106	1,169	1,168	1,193	1,198	1,195	1,185	1,212	(80)	33	(53)	79	43
Telecoms	Telecoms failures (service affecting)	279	183	150	131	152	515	240	103	73	72	71	(39)	(80)	(77)	(59)	(81)
Electrical Power	AC traction power failures (service affecting)	-	-	-	-	-	-	-	-	4	4	4	-	-	4	4	4
	DC traction power failures (service affecting)	115	100	113	114	98	122	125	125	120	120	112	10	25	7	6	14
	Non traction operational power supply failures (service affecting)	20	19	32	30	23	55	55	55	55	55	55	35	36	23	25	32
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	585	390	411	480	456	482	456	456	456	456	456	(129)	66	45	(24)	0
Structures	Number of open faults with a risk score ≥12	146	115	113	77	75	374	300	251	202	153	104	154	136	89	76	29
Earthworks	Earthwork failures	7	8	8	7	8	6	6	6	6	6	5	(1)	(2)	(2)	(1)	(3)
Points	Points failures (service affecting)	224	199	214	229	185	320	296	297	297	298	297	72	98	83	69	112

Table 155 Wessex: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	48.5%	48.4%	48.5%	50.0%	48.9%	45.9%	45.7%	45.9%	46.0%	46.2%	46.3%	-2.8%	-2.5%	-2.5%	-3.8%	-2.5%
	Track - Used Life - Switch & Crossings	54.7%	52.4%	50.5%	50.3%	52.4%	56.7%	56.0%	53.2%	49.9%	48.9%	48.8%	1.3%	0.8%	-0.6%	-1.4%	-3.6%
	Track - Used Life - Sleepers	63.5%	63.4%	64.2%	66.1%	61.4%	62.2%	61.9%	61.1%	61.0%	60.6%	60.6%	-1.7%	-2.3%	-3.2%	-5.5%	-0.8%
	Track - Used Life - Ballast	54.1%	54.4%	55.3%	56.6%	53.9%	50.6%	50.1%	48.9%	48.6%	48.0%	48.3%	-4.0%	-5.5%	-6.7%	-8.6%	-5.6%
Signalling	Signalling Condition Index (SICA Remaining Life)	12.34	14.94	15.80	14.10	15.04	12.92	12.77	12.06	12.11	15.29	15.04	(0.43)	2.88	3.69	(1.19)	-
Telecoms	Telecoms - Remaining Life	52.6%	48.1%	48.7%	51.4%	51.3%	51.0%	47.5%	42.9%	50.2%	60.2%	68.1%	5.1%	5.2%	-1.5%	-8.9%	-16.8%
Electrical Power	EP - Remaining Life - Conductor Rail	69.6%	67.9%	69.2%	68.7%	68.8%	68.4%	66.9%	66.2%	66.8%	66.7%	66.6%	2.7%	1.7%	2.4%	2.0%	2.2%
	EP - Remaining Life - Overhead Line Equipment (OLE)																
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	49.8%	52.5%	51.5%	48.7%	49.9%	36.2%	36.2%	34.6%	33.7%	32.9%	32.0%	13.6%	17.9%	17.8%	15.8%	17.8%
	Light Maintenance Depot (LMD) - %age Remaining Life	45.1%	44.7%	44.7%	51.7%	37.4%	44.5%	43.7%	42.9%	42.1%	41.3%	40.4%	1.3%	1.8%	2.6%	10.4%	-3.0%
Structures	Structures - PLBE Condition Banding	66.9	66.8	66.5	66.3	67.3	66.7	66.8	66.9	67.1	67.2	67.4	0.1	(0.1)	(0.6)	(0.9)	(0.1)
	Tunnel Condition Monitoring Index (TCMI)	83.7	84.0	83.9	84.1	85.1	82.9	82.9	82.9	82.9	82.9	82.9	0.8	1.1	1.0	1.2	2.2
Earthworks	Earthworks - Condition Banding	1.70	1.74	1.78	1.79	1.73	1.69	1.69	1.70	1.71	1.72	1.73	(0.01)	(0.04)	(0.07)	(0.07)	-
Drainage	Track Drainage - Condition Banding	1.71	1.71	1.73	1.72	1.70	1.70	1.70	1.70	1.70	1.70	1.70	(0.01)	(0.01)	(0.03)	(0.02)	-
	Earthwork/Structure Drainage - Condition Banding	1.91	1.95	1.93	1.93	1.90	1.70	1.90	1.90	1.90	1.90	1.90	(0.01)	(0.05)	(0.03)	(0.03)	-

Table 156 Wessex: track renewal volumes total

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	2					2	6		1			7	(3)		(1)			(4)
Complete Renewal	Track km	9	15	13	4	5	46	22	31	21	13	13	100	(13)	(15)	(9)	(9)	(8)	(54)
Complete (formation)	Track km	3	0		1	0	4	6	2	2		1	11	(3)	(2)	(2)	1	(1)	(7)
Rail Renewal	Track km	43	36	23	9	18	130	26	5	30	18	26	106	17	31	(6)	(9)	(8)	24
Single Rail	Track km	2	10	10	8	4	33	3	1	2	2	2	9	(1)	9	7	6	2	24
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km	5	24	1			30		30				30	5	(6)	1			(0)
Heavy Refurbishment	Track km	24	24	1			49	24	14	8	7	27	80	0	10	(7)	(7)	(27)	(31)
Refurbishment																			
Heavy Refurbishment	Track km	3	2	1	3	2	11	2	6	4	1	1	14	1	(4)	(3)	2	1	(3)
Medium (concrete)	Track km	8	2		1		11	2	7	14	18	36	77	6	(5)	(14)	(17)	(36)	(65)
Medium (other)	Track km	2	10	16	3	1	31	1	2	1	7	2	14	0	8	15	(4)	(1)	17
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends							4	6	10	6		26	(4)	(6)	(10)	(6)		(26)
Full Renewal	Point Ends	33	22	9	14		78	43	17	20	12	7	99	(10)	5	(11)	2	(7)	(21)
Refurbishment																			
Heavy	Point Ends	5	26	31	8	14	84	6	40	38	27	28	139	(1)	(14)	(7)	(19)	(14)	(55)
Medium	Point Ends	13	69	23	14		119	39	27	25	2	12	105	(26)	42	(2)	12	(12)	14
Off Track																			
Fencing	m	25	26	11	0	12	74	37	47	61	55	45	245	(12)	(21)	(50)	(55)	(33)	(171)
Slab track	Track km																		

**Table 157: Wessex track renewal volumes
(route criticality 1)**

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line													
Conventional													
Steel Relay	Track km												
Complete Renewal	Track km												
Complete (formation)	Track km												
Rail Renewal	Track km												
Single Rail	Track km												
High Output													
Automated Ballast Cleaning (ABC)	Track km												
Rail Sleeper Relay	Track km												
Heavy Refurbishment	Track km												
Refurbishment													
Heavy Refurbishment	Track km												
Medium (concrete)	Track km												
Medium (other)	Track km												
Switches & Crossings													
S&C delivered													
Abandonment	Point Ends												
Full Renewal	Point Ends												
Refurbishment													
Heavy	Point Ends												
Medium	Point Ends												
Off Track													
Slab track	Track km												

**Table 158: Wessex track renewal volumes
(route criticality 2)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	2	2	3	0		7	4	6	7	2	3	21	(2)	(3)	(4)	(2)	(3)	(14)
Complete (formation)	Track km																		
Rail Renewal	Track km	10	1	1	0	0	12	2	0	1	0		3	9	1	0	(0)	0	10
Single Rail	Track km		0	0	0	0	0	0	0				0	0	0	0	0	0	0
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km		0	0	0	0	1	1	1	0		2	(1)	0	(1)	0	0	(1)	
Medium (concrete)	Track km	4	0		0		4		2	2	8	12	4	0	(2)	(2)	(8)	(8)	
Medium (other)	Track km		0	0	0	0	0	0	0	0		0	(0)	0	0	0	0	0	
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends																		
Full Renewal	Point Ends	10	6				16	17	10	7	4	38	(7)	6	(10)	(7)	(4)	(22)	
Refurbishment																			
Heavy	Point Ends	2	6	8	2	3	22	4	3	6	14	8	35	(2)	3	2	(12)	(4)	(13)
Medium	Point Ends	4	26	9	5		43	34	3	2		39	(30)	26	6	3		4	
Off Track																			
Slab track	Track km																		

**Table 159: Wessex track renewal volumes
(route criticality 3)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	5	9	3	1	3	22	11	14	6	8	9	49	(6)	(5)	(3)	(7)	(6)	(27)
Complete (formation)	Track km	2	0		1	0	4	4	2	1		1	9	(2)	(2)	(1)	1	(1)	(6)
Rail Renewal	Track km	19	24	16	6	12	77	16	3	19	9	26	72	3	22	(4)	(3)	(13)	5
Single Rail	Track km	2	7	6	5	2	23	3	1	1	2	0	6	(1)	6	6	3	2	17
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km	2	20	1			23		15				15	2	5	1			8
Heavy Refurbishment	Track km	2	24	1			27	1	1	6	5	22	34	1	23	(5)	(5)	(22)	(7)
Refurbishment																			
Heavy Refurbishment	Track km	3	2	1	2	1	9	1	5	3	1	1	11	2	(3)	(2)	1	0	(2)
Medium (concrete)	Track km	4	1		0		6	2	3	5	11	24	44	2	(1)	(5)	(11)	(24)	(38)
Medium (other)	Track km	1	2	3	0	0	6	0	1	1	0		2	1	0	2	0	0	3
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends								2	3	1		5		(2)	(3)	(1)		(5)
Full Renewal	Point Ends	22	16		14		52	26	17	1	4	4	51	(4)	(1)	(1)	10	(4)	1
Refurbishment																			
Heavy	Point Ends	1	11	13	3	6	33		30	16	6	5	57	1	(19)	(3)	(3)	0	(24)
Medium	Point Ends	6	28	9	6		49	5	22	7		9	42	1	6	3	6	(9)	6
Off Track																			
Slab track	Track km																		

**Table 160: Wessex track renewal volumes
(route criticality 4)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	2	4	6	4	2	17	3	5	8	2	1	21	(2)	(2)	(2)	1	0	(4)
Complete (formation)	Track km	1						1	0				1	(1)	(0)				(1)
Rail Renewal	Track km	10	8	5	2	4	28	5	2	7	5	1	21	5	5	(2)	(3)	3	8
Single Rail	Track km			3	3	2	1	8			2		2	3	1	2	0		6
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km	3	4				7		15				15	3	(11)				(8)
Heavy Refurbishment	Track km	22					22	23	7	1	2	3	35	(1)	(7)	(1)	(2)	(3)	(13)
Refurbishment																			
Heavy Refurbishment	Track km	0	0	0	0	0	0		0				0	0	0	(0)	0	0	0
Medium (concrete)	Track km	1	0		0		1		4	3	4		11	1	0	(4)	(3)	(4)	(10)
Medium (other)	Track km	6	11	2	1		20			7	2		9	6	11	(5)	(2)		10
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends							4	5	3	1		12	(4)	(5)	(3)	(1)		(12)
Full Renewal	Point Ends	1		9			10			9	1		10	1		(0)	(1)		0
Refurbishment																			
Heavy	Point Ends	2	8	10	3	4	27	2	4	16	7	15	44	4	(6)	(4)	(11)	(17)	
Medium	Point Ends	3	6	2	1		12		1	5		3	9	3	5	(3)	1	(3)	3
Off Track																			
Slab track	Track km																		

**Table 161: Wessex track renewal volumes
(route criticality 5)**

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	2					2	6		1			7	(3)		(1)			(4)
Complete Renewal	Track km	0		0			0	4	5		1		10	(3)	(5)	0	(1)		(9)
Complete (formation)	Track km							0		0			0	(0)		(0)			(0)
Rail Renewal	Track km	4	3	2	1	2	12	4	0	3	4		10	0	3	(0)	(3)	2	2
Single Rail	Track km		1	1	1	0	2				1	1		1	1	1	1	(0)	1
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km																		
Refurbishment																			
Heavy Refurbishment	Track km	0	0	0	0	0	0	1					1	(1)	0	0	0		(0)
Medium (concrete)	Track km		0		0		0	5	3	2			9	(4)	(3)	(2)			(9)
Medium (other)	Track km	1	2	3	0	0	6	1	1	1			3	(1)	1	2	0	0	3
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends									1		1						(1)	(1)
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends	1	1	0	0	2		3					3	(3)	1	0	0		(1)
Medium	Point Ends	10	3	2		15		4	11				15	6	(7)	2			0
Off Track																			
Slab track	Track km																		

Table 162 Wessex: buildings and civils volumes

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Structures																			
Underbridges	m ²	7,511	9,722	4,294	1,838	778	24,143	7,472	7,833	7,653	5,004	5,508	33,470	39	1,889	(3,359)	(3,166)	(4,730)	(9,327)
Overbridges (incl BG3)	m ²	183	360			703	1,246	77	454	450	588	325	1,894	106	(94)	(450)	(588)	378	(648)
Tunnels	m ²	1,127	1,400		325	650	3,502	1,768	1,672	6,708	1,736	1,736	13,620	(641)	(272)	(6,708)	(1,411)	(1,086)	(10,118)
Culverts	m ²	41	603	107	351		1,102	423	493	423	423	353	2,115	(382)	110	(316)	(72)	(353)	(1,013)
Footbridges	m ²	113		60	140	45	358	199	181	217	240	186	1,023	(86)	(181)	(157)	(100)	(141)	(665)
Coastal & Estuary Defences	m			1,244		456	1,700			1,700			1,700			(456)		456	
Retaining Walls	m ²	248	77				325	302	463		778	562	2,105	(54)	(386)		(778)	(562)	(1,780)
Earthworks	5-chain	73	164	204	227	249	917	162	169	174	171	148	825	(89)	(5)	30	56	101	92
Track Drainage																			
Renewal	lm		1,281	171	619	343	2,414	1,000	1,000	1,000	1,000	1,000	5,000	(1,000)	281	(829)	(381)	(657)	(2,586)
Refurbishment	lm	670	31,005	29,257	21,254	25,643	107,829	26,000	26,000	26,000	26,000	26,000	130,000	(25,330)	5,005	3,257	(4,746)	(357)	(22,171)
New Build	lm			400		750	1,150	100	100	100	100	100	500	(100)	(100)	300	(100)	650	650
EW Drainage																			
Renewal	lm	225					225	308	480	828	528	463	2,606	(83)	(480)	(828)	(528)	(463)	(2,381)
Refurbishment	lm			162			162	60	70		115	10	255	(60)	(70)		47	(10)	(93)
Maintenance	lm							2,621	2,608	2,608	2,748	2,956	13,540	(2,621)	(2,608)	(2,608)	(2,748)	(2,956)	(13,540)
New Build	lm	1,400					1,400	5,283	5,208	5,208	5,348	5,493	26,540	(3,883)	(5,208)	(5,208)	(5,348)	(5,493)	(25,140)
Franchised Stations																			
Footbridges	m ²		310	109			419	120		343		195	658	(120)	310	(234)		(195)	(239)
Train Sheds	m ²																		
Canopies	m ²	602	3,721	3,000			7,323	1,523	5,647	6,063	2,100	280	15,613	(921)	(1,926)	(3,063)	(2,100)	(280)	(8,290)
Platforms	m ²	9,313	10,700	9,682	2,835		32,530	33,608	12,783	16,588	14,410	6,908	84,297	(24,295)	(2,083)	(6,906)	(11,575)	(6,908)	(51,767)
Buildings	m ²		232				232								232			232	
Lifts & Escalators	No.		7				7	3	3				6	(3)	4			1	
Managed Stations																			
Footbridges	m ²																		
Train Sheds	m ²																		
Canopies	m ²	265					265	4,330					4,330	(4,065)					(4,065)
Platforms	m ²																		
Buildings	m ²		350				350	3,729					3,729	(3,729)	350				(3,379)
Lifts & Escalators	No.							3					3	(3)				(3)	
Light Maintenance Depots																			
Buildings	m ²		13,700			13,700		1,527		965			2,492	(1,527)	13,700	(965)			11,208
Depot Shed	m ²																		
Lineside Buildings																			
Buildings	m ²	1,145				1,145	15,180	180	180	180	180		15,900	(15,180)	965	(180)	(180)	(180)	(14,755)
MDU																			
Buildings	m ²		550			550												550	550

Table 163 Wessex: signalling renewal volumes

	SEUs	BP18					Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Full Conventional Resignalling	SEUs	107	5			25	136	93			395		488	14	5	(395)	25	(351)	
ERTMS Resignalling	SEUs							5	29	48	45	127		(5)	(29)	(48)	(45)	(127)	
Partial Conventional Resignalling	SEUs							1	3	11	7	10	33	(1)	(3)	(11)	(7)	(10)	(33)
Targeted Component Renewal	SEUs									24			24			(24)			(24)
Modular Resignalling	SEUs																		
Level Crossing Renewals	No.	5	2			1	1	9	10	2	4	25	15	56	(5)	(4)	(24)	(14)	(47)

Table 164 Wessex: elec'n and plant renewal volumes

		BP18					Delivery Plan (mar 2014)						BP18 vs DP						
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Contact Systems																			
Overhead Line Equipment (OLE) Re-wiring	wire runs																		
Mid-life Refurbishment	wire runs																		
Structure Renewals	No.																		
Conductor rail																			
Renewals	km	9	14	16	14	9	61	12	12	12	12	12	59	(3)	2	4	2	(3)	2
AC distribution																			
HV Switchgear Renewal	No.																		
Booster Transformers	No.																		
DC distribution																			
HV Switchgear Renewal	No.					10	5	15					29	(29)	10	5	(14)		
HV Cables	km		1	5			6		2		7		9	(2)	1	(2)		(3)	
LV Switchgear Renewal	No.								9	9	9	9	9	44	(9)	(9)	(9)	(9)	(44)
LV Cables	km	13	25	23	14	15	90	6	6	6	6	6	29	7	19	17	8	10	61
Transformer Rectifiers	No.								1				1		(1)			(1)	
Fixed plant																			
Signalling Power Cable Renewal	km	10	19	6	8		42	6	6	6	6	6	29	4	13	0	2	(6)	14
Principle Supply Point Renewal	No.							0	0	0	0	0	1	(0)	(0)	(0)	(0)	(0)	(11)
Rail Heating																			
Points Heating Renewal	Point End	31	4			35		120	0	0	0	0	121	(89)	4	(0)	(0)	(0)	(86)

Table 165 Wessex: telecoms renewal volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Station Information and Surveillance Systems													
Customer Information Systems	No.			57	57			364	540	263	1,167		(364)
Public Address	No.							844	1,218	684	2,746		(844)
CCTV	No.									492	492		(492)
Clocks	No.												
Operational Comms													
PABX Concentrator	No. of Lines								66	66			(66)
Processor Controlled Concentrator	No. of Lines								49	49			(49)
Driver-Only Operation: CCTV	No.												
Driver-Only Operation: Mirrors	No.												
Public Emergency Telephone System	No.							8	8			(8)	(8)
Human Machine Interface Large	No.								6	6			(6)
Human Machine Interface Small	No.												
Radio System	No.									6	6		(6)
Power Systems	No.												(6)

Table 166 Wessex: maintenance volumes

		Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Track	Plain Line Tamping (km)	Km	MNT004	642	412	511	357	471	2,393	753	753	726	698	698	3,628	(111)	(341)	(215)	(341)	(227)	(1,235)
	Plain Line Stoneblowing (km)	Km	MNT005	71	87	43	64	146	411	168	168	168	168	168	842	(98)	(82)	(125)	(105)	(22)	(432)
	Manual Wet Bed Removal	Bay	MNT006	1,040	1,959	1,241	1,215	764	6,219	725	725	725	725	725	3,625	315	1,234	516	490	39	2,594
	Mechanical Wet Bed Removal	Bay	MNT012	2,294	1,093	415	373	1,240	5,415	1,430	1,430	1,430	1,430	1,430	7,150	864	(337)	(1,015)	(1,057)	(190)	(1,735)
	S&C Tamping	Point End	MNT007	430	208	305	185	333	1,461	396	396	378	360	360	1,890	34	(188)	(73)	(175)	(27)	(429)
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	988	853	2,109	1,405	973	6,328	1,104	1,104	1,104	1,104	1,104	5,520	(116)	(251)	1,005	301	(131)	808
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	14,667	9,762	13,203	10,056	8,628	56,316	8,685	8,685	8,685	8,685	8,685	43,425	5,982	1,077	4,518	1,371	(57)	12,891
	Mechanical Reprofiling of Ballast	Mile	MNT017	175	71	185	48	83	563	253	253	253	253	253	1,265	(78)	(182)	(68)	(205)	(170)	(702)
	Manual Reprofiling of Ballast	Rail Yards	MNT020	144,993	134,496	178,595	150,168	91,239	699,491	127,000	127,000	127,000	127,000	127,000	635,000	17,993	7,496	51,595	23,168	(35,761)	64,491
	Replacement of Pads & Insulators	Sleeper	MNT029	24,742	78,209	108,987	35,718	26,473	274,129	80,000	80,000	80,000	80,000	80,000	400,000	(55,258)	(1,791)	28,987	(44,282)	(53,528)	(125,871)
	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	274,606	107,600	164,052	147,115	132,748	826,121	79,982	79,982	79,982	79,982	79,982	399,910	194,624	27,618	84,070	67,133	52,766	426,211
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	23,095	16,251	17,472	26,349	19,227	102,395	36,300	36,300	33,000	29,700	29,700	165,000	(13,205)	(20,049)	(15,528)	(3,351)	(10,473)	(62,605)
	S&C Renew Crossing	Crossing	MNT120	82	111	106	72	60	431	79	79	79	79	79	395	3	32	27	(7)	(19)	36
	S&C Maintenance	Point End	MNT122	18,127	12,322	16,701	12,846	11,106	71,101	25,312	25,312	25,312	25,312	25,312	126,560	(7,185)	(12,990)	(8,611)	(12,466)	(14,206)	(55,459)
	S&C Renew Half Set of Switches	H/S Switch	MNT123	95	115	87	58	116	471	88	88	88	88	88	440	7	27	(1)	(30)	28	31
	S&C Stoneblowing	Point End	MNT124	27	17	8	10	345	407	120	120	120	120	120	600	(93)	(103)	(112)	(110)	225	(193)
	Rail Grinding Plain Line	Miles	MNT309	120	1,520	371	373	403	2,787	420	500	600	600	600	2,720	(300)	1,020	(229)	(227)	(197)	67
	Rail Grinding S&C	Point End	MNT310	60	268	83	68	156	635	230	230	230	230	230	1,150	(170)	38	(147)	(162)	(74)	(515)
	Fences & Boundary Walls	Yard	MNT072	48,741	50,169	48,397	40,538	31,134	218,979	55,245	55,245	55,245	55,245	55,245	276,225	(6,504)	(5,076)	(6,849)	(14,707)	(24,111)	(57,247)
	Drainage	Yard	MNT073	54,186	94,164	81,821	67,807	29,826	327,805	144,085	144,085	144,085	144,085	144,085	720,425	(89,899)	(49,921)	(62,264)	(76,278)	(114,259)	(392,621)
	Level Crossing Management - Off Track	Each	MNT075	466	307	2,974	4,263	2,539	10,550	1,399	1,399	1,399	1,399	1,399	6,995	(933)	(1,092)	1,575	2,864	1,140	3,555
Offtrack	Vegetation Removal of Boundary Trees	Number	MNT081	4,728	1,272	5			6,005	9,888	9,888	9,888	9,888	9,888	49,440	(5,160)	(8,616)	(9,883)	(9,888)	(9,888)	(43,435)
	Vegetation Management by Train	Mile	MNT082	2					2	2,204	2,204	2,101	1,998	1,998	10,505	(2,202)	(2,204)	(2,101)	(1,998)	(1,998)	(10,503)
	Vegetation Management (manual)	Square Yard	MNT170	872,906	936,967	264,881	176,025		2,250,778	361,388	361,388	361,388	361,388	361,388	1,806,940	511,518	575,579	(96,507)	(185,363)	(361,388)	443,838
	Vegetation Management (mechanised)	Mile	MNT171	4,272	4,997				9,269	47	47	47	47	47	236	4,225	4,950			9,175	
	Vegetation Management (mechanised)	Square Metre	MNT171		1,910,090	937,740	669,352		3,517,182												
	Maintain Conductor Rail	Various	MNT206	20,573	27,563	24,271	13,094	7,135	92,635	15,000	15,000	15,000	15,000	15,000	74,999	5,573	12,563	9,271	(1,906)	(7,865)	17,636
	Maintain DC Traction Power Supplies	Each	MNT209	8,713	7,211	8,802	7,932	3,700	36,358	7,560	7,610	7,720	7,815	7,925	38,630	1,153	(399)	1,082	117	(4,225)	(2,272)
	Maintain OHL Components	Various	MNT211	111	1,224	1,371	1,328	1,370	5,404							111	1,224	1,371	1,328	1,370	5,404
	Maintain Points Heating	Each	MNT212	11,580	11,144	10,693	9,222	12,576	55,215	13,205	13,205	13,205	13,205	13,205	66,027	(1,625)	(2,062)	(2,512)	(3,983)	(629)	(10,813)
Civils	Maintain Signalling Power Supplies	No.	MNT213	233	345	325	329	168	1,400	1,199	1,199	1,199	1,199	1,199	5,997	(966)	(855)	(874)	(870)	(1,031)	(4,597)
	Visual Examinations	No.	MNT226a	3,505	3,663	3,947	4,101	170	15,386	4,130	4,180	4,069	4,183	4,145	20,707	(625)	(517)	(122)	(82)	(3,975)	(5,321)
	Tunnel Examinations	No. minor elements	MNT220	3,329	3,423	88	77	85	7,002	3,535	3,535	3,535	3,535	3,535	17,673	(206)	(112)	(3,447)	(3,458)	(3,450)	(10,671)
	Detailed Examinations	No.	MNT221	444	576	765	419	634	2,838	614	563	674	560	598	3,009	(170)	13	91	(141)	36	(171)
	Underwater Examinations	No.	MNT222	238	18	175	82	97	610	85	85	182	85	85	522	153	(67)	(7)	(3)	12	88
	Ancillary Structure Examinations	Number detailed	MNT223	9	59	192	79	62	401	3	69	236	99	74	481	6	(10)	(44)	(20)	(12)	(80)
	Hidden Critical Element Examinations	No.	MNT224		71	34	40	109	254	102	47	44	80	82	355	(102)	24	(10)	(40)	27	(101)
	Load Carrying Assessments	Number spans	MNT225	729	613				1,342	729	591	620	820	840	3,600	22	(620)	(820)	(840)	(2,258)	
Buildings	Visual Examinations	Each	MNT226	177	1,065	191	185	3,940	5,558	1,173	1,204	1,216	1,166	1,212	5,971	(996)	(139)	(1,025)	(981)	2,728	(413)
	5 Yearly Examinations	Each	MNT227	49	67	57	64	59	296	74	43	31	81	35	264	(25)	24	26	(17)	24	32

Table 167 Western: asset condition reliability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)						BP18 vs DP (Positive is good)				
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Rail Breaks and Immediate Action defects per 100km	2.90	1.33	1.72	1.33	1.80	3.61	4.10	3.95	3.95	3.90	3.90	1.20	2.62	2.23	2.57	2.10
	Track geometry (Poor Track Geometry)	2.23%	1.93%	1.85%	1.83%	1.99%	2.06%	2.20%	2.20%	2.10%	2.05%	2.00%	-0.03%	0.27%	0.25%	0.22%	0.01%
	Track failures (service affecting)	302	297	281	309	292	364	297	293	288	291	294	(5)	(4)	7	(18)	2
Signalling	Signalling failures (service affecting)	1,417	1,359	1,395	1,353	1,340	1,493	1,430	1,417	1,430	1,443	1,412	13	58	35	90	72
Telecoms	Telecoms failures (service affecting)	409	288	225	320	208	360	223	119	98	98	98	(186)	(169)	(127)	(222)	(110)
Electrical Power	AC traction power failures (service affecting)	11	20	33	75	100	12	17	24	61	104	104	6	4	28	29	4
	DC traction power failures (service affecting)																
	Non traction operational power supply failures (service affecting)	12	14	12	15	11	32	43	67	56	42	25	31	53	44	27	14
Buildings	Buildings - Re-active Faults (2&24) (attention within 2hrs, fix within 24hrs) & (attention within 24hrs, fix within 7 days)	506	426	361	341	394	585	620	620	670	720	800	114	194	309	379	406
Structures	Number of open faults with a risk score ≥12	99	72	55	56	90	160	150	145	140	135	132	51	73	85	79	42
Earthworks	Earthwork failures	17	16	19	11	13	18	17	16	16	15	15	(0)	0	(3)	4	1
Points	Points failures (service affecting)	500	459	529	503	446	534	486	487	486	486	495	(14)	28	(43)	(17)	49

Table 168 Western: asset condition sustainability

Principal Asset	Description	BP18					Delivery Plan (mar 2014)					BP18 vs DP (Positive is good)					
		2014/15	2015/16	2016/17	2017/18	2018/19	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Track	Track - Used Life - Rail	45.5%	45.5%	44.2%	44.9%	42.5%	43.0%	43.1%	43.3%	43.9%	41.7%	40.9%	-2.3%	-2.1%	-0.3%	-3.2%	-1.7%
	Track - Used Life - Switch & Crossings	49.5%	49.5%	46.9%	47.9%	47.3%	50.6%	51.0%	50.1%	49.3%	48.4%	48.5%	1.4%	0.7%	2.4%	0.5%	1.2%
	Track - Used Life - Sleepers	52.6%	53.3%	52.5%	52.9%	48.9%	50.4%	50.9%	51.3%	52.3%	50.1%	49.6%	-1.8%	-2.0%	-0.2%	-2.8%	0.7%
	Track - Used Life - Ballast	44.2%	45.4%	44.4%	44.9%	41.7%	42.0%	41.1%	41.9%	41.9%	40.5%	38.8%	-3.1%	-3.4%	-2.5%	-4.4%	-2.9%
Signalling	Signalling Condition Index (SICA Remaining Life)	10.06	10.97	14.80	14.20	13.64	11.30	13.64	16.95	17.84	16.96	16.32	(3.58)	(5.98)	(3.04)	(2.76)	(2.67)
Telecoms	Telecoms - Remaining Life	78.4%	72.1%	60.9%	57.8%	54.1%	80.6%	78.2%	71.8%	65.3%	59.1%	53.6%	0.2%	0.2%	-4.3%	-1.3%	0.5%
Electrical Power	EP - Remaining Life - Conductor Rail																
	EP - Remaining Life - Overhead Line Equipment (OLE)	75.4%	74.0%	74.0%	87.6%	69.0%	76.8%	75.4%	74.0%	71.3%	70.4%	69.0%	0.0%	0.0%	2.7%	17.2%	0.0%
	EP - Remaining Life - Signalling Power Cable																
Buildings	Stations - %age Remaining Life	47.4%	48.0%	48.2%	47.8%	47.6%	34.6%	34.6%	32.8%	31.9%	31.0%	30.1%	12.8%	15.2%	16.3%	16.8%	17.5%
	Light Maintenance Depot (LMD) - %age Remaining Life	44.2%	44.3%	43.3%	43.3%	38.9%	37.1%	36.4%	35.7%	35.1%	34.4%	33.7%	7.8%	8.6%	8.2%	8.9%	5.2%
Structures	Structures - PLBE Condition Banding	59.7	59.2	59.9	61.0	58.5	60.0	59.9	60.0	60.1	60.2	60.3	(0.2)	(0.8)	(0.2)	0.9	(1.8)
	Tunnel Condition Monitoring Index (TCMI)	88.1	88.2	86.6	86.6	88.2	84.6	84.6	84.6	84.6	84.6	84.6	3.5	3.6	2.0	2.0	3.6
Earthworks	Earthworks - Condition Banding	2.14	2.11	2.11	2.13	2.08	1.99	1.96	1.93	1.92	1.91	1.90	(0.18)	(0.18)	(0.19)	(0.22)	(0.18)
Drainage	Track Drainage - Condition Banding	1.13	1.13	1.10	1.12	1.13	-	-	-	-	-	-					
	Earthwork/Structure Drainage - Condition Banding	1.07	1.07	1.08	1.09	1.07	-	-	-	-	-	-					

Table 169 Western: track renewal volumes total

		BP18						Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																			
Conventional																			
Steel Relay	Track km	3	5	3	4	0	15	1	1	2	7	11		2	5	2	2	(7)	5
Complete Renewal	Track km	20	17	14	7	11	69	29	17	18	20	24	108	(10)	0	(4)	(13)	(13)	(39)
Complete (formation)	Track km	1	5	4	3	4	15	3	0	2	2	1	9	(2)	4	1	1	2	7
Rail Renewal	Track km	15	22	17	13	17	84	17	17	17	17	17	87	(2)	5	(0)	(5)	(0)	(3)
Single Rail	Track km	12	5	4	3	3	26	3	3	3	3	2	12	9	2	1	1	1	14
High Output																			
Automated Ballast Cleaning (ABC)	Track km		2				2	34	19	71	78	69	270	(34)	(17)	(71)	(78)	(69)	(268)
Rail Sleeper Relay	Track km	5	6	0	10	6	27				120		120	5	6	0	(110)	6	(93)
Heavy Refurbishment	Track km	26		22	21	11	80							26		22	21	11	80
Refurbishment																			
Heavy Refurbishment	Track km	3	2	3	3	1	12	2					2	1	2	3	3	1	10
Medium (concrete)	Track km	0	2	1	3	0	7	14	18	18	18	20	88	(14)	(16)	(17)	(15)	(20)	(81)
Medium (other)	Track km	62	34	34	61	31	222	26	26	27	26	27	132	36	8	7	35	4	90
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	4	2	5		2	13	6	1				7	(2)	1	5		2	6
Full Renewal	Point Ends	13	17	25	8	37	100	14	46	52	33	20	165	(1)	(29)	(27)	(25)	17	(65)
Refurbishment																			
Heavy	Point Ends	2	20	29	15	19	84	12	17	28	20		77	(10)	3	1	(5)	19	7
Medium	Point Ends	16	10	28	31	12	97	35	37	54	47	39	212	(19)	(27)	(26)	(16)	(27)	(115)
Off Track																			
Fencing	m	54	76	42	38	29	240	54	58	60	64	66	302	(1)	19	(18)	(25)	(37)	(62)
Slab track	Track km																		

**Table 170: Western track renewal volumes
(route criticality 1)**

	BP18						Delivery Plan (mar 2014)						BP18 vs DP							
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5		
Plain Line																				
Conventional																				
Steel Relay	Track km																			
Steel Relay	Track km	1	0	0	0	1			0		1	1			1	0	0	(1)	0	
Complete Renewal	Track km	4	5	3	3	3	17		11	0	3	9	11	34	(7)	4	(0)	(6)	(8)	(17)
Complete (formation)	Track km	1	0	1	1	1	5		1	0	0	0	1	3	0	0	1	1	1	3
Rail Renewal	Track km	1	9	5	4	11	30		5	5	6	6	5	27	(5)	3	(0)	(2)	6	2
Single Rail	Track km	3	1	1	0	1	5		1	1	1	1	1	3	2	0	0	(0)	0	3
High Output																				
Automated Ballast Cleaning (ABC)	Track km								2						(17)	(14)	(71)	(53)	(69)	(224)
Rail Sleeper Relay	Track km								3	0	2	0	6			3	0	(77)	0	(74)
Heavy Refurbishment	Track km								3	9	3	5	20			3	9	3	5	20
Refurbishment																				
Heavy Refurbishment	Track km	1	1	1	1	0	4		1					1	0	1	1	1	0	4
Medium (concrete)	Track km	0	0	0	0	0	0							0	0	(0)	0	0	(0)	
Medium (other)	Track km	2	0	0	0	0	3							1	2	0	(1)	0	0	2
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends																			
Full Renewal	Point Ends	7	1	3	6	18		1	7	14		4	26		(1)	0	(13)	3	2	(8)
Refurbishment																				
Heavy	Point Ends	3	4	2	3	12						12		12		3	4	(10)	3	(0)
Medium	Point Ends	3	8	9	4	24		4	14	9	18	19	64		(4)	(11)	(1)	(9)	(15)	(40)
Off Track																				
Slab track	Track km																			

**Table 171: Western track renewal volumes
(route criticality 2)**

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																			
Conventional																			
Steel Relay	Track km																		
Complete Renewal	Track km	5	1	2	0	3	11	2	0	1	0	3	3	0	2	(0)	3	8	
Complete (formation)	Track km		0	0	0	0	1	1				1	(1)	0	0	0	0	(0)	
Rail Renewal	Track km	4	1	1	1	1	7	1	1	1	1	5	3	0	(0)	(0)	(0)	2	
Single Rail	Track km	4	1	1	2	1	8	1	1	1	1	3	4	0	0	1	0	5	
High Output																			
Automated Ballast Cleaning (ABC)	Track km							0		12	1		13	(12)	(1)			(13)	
Rail Sleeper Relay	Track km							5	6	10					5	6	10		
Heavy Refurbishment	Track km	8		7	16		31						8		7	16		31	
Refurbishment																			
Heavy Refurbishment	Track km	0	0	0	0	0	2	0				0	0	0	0	0	0	1	
Medium (concrete)	Track km		0	0	0	0	1		2	2	2	3	9	(2)	(2)	(2)	(3)	(8)	
Medium (other)	Track km	12	1	1	2	1	18	1	1	1	1	5	11	0	0	1	0	13	
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	0	0			1			1			1		(1)	0			(0)	
Full Renewal	Point Ends	1	4	12		9	25		23	24	7	12	66	1	(19)	(12)	(7)	(3)	(41)
Refurbishment																			
Heavy	Point Ends	4	8	2	3	18			14			14		4	(6)	2	3	4	
Medium	Point Ends	1	3	3	1	8		1	14	3	1	19	(1)	1	(11)	(0)	0	(11)	
Off Track																			
Slab track	Track km																		

**Table 172: Western track renewal volumes
(route criticality 3)**

	BP18						Delivery Plan (mar 2014)						BP18 vs DP							
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5		
Plain Line																				
Conventional																				
Steel Relay	Track km	0	0	0	0	0	1			0	0	1		0	0	0	(0)	(0)	1	
Complete Renewal	Track km	9	10	6	3	4	31	15	11	11	5	9	52	(6)	(1)	(5)	(3)	(5)	(20)	
Complete (formation)	Track km	0	3	2	1	2	8	1	0	2	2	0	5	(1)	3	0	(0)	2	3	
Rail Renewal	Track km	4	7	5	5	1	21	5	5	5	5	5	25	(1)	1	0	(1)	(4)	(4)	
Single Rail	Track km	4	1	1	0	1	6	1	1	1	1	1	3	3	0	0	(0)	0	4	
High Output																				
Automated Ballast Cleaning (ABC)	Track km						0	5	2		25		32	(5)	(2)		(25)		(32)	
Rail Sleeper Relay	Track km						3	3	1		41		41		3		(38)	1	(35)	
Heavy Refurbishment	Track km		13	6	1	2	21							13		6	1	2	21	
Refurbishment																				
Heavy Refurbishment	Track km	1	1	1	1	1	5	1					1	0	1	1	1	1	5	
Medium (concrete)	Track km		0	0	0	0	1	1	2	2	2	2	9	(1)	(2)	(2)	(2)	(2)	(8)	
Medium (other)	Track km		26	10	7	12	6	61	5	5	5	5	6	26	21	5	2	7	0	35
Switches & Crossings																				
S&C delivered																				
Abandonment	Point Ends	1	0	0		2	4	1					1	0	0	0	2	3		
Full Renewal	Point Ends	12	5	5	5	21	48	13	15	14	14		56	(1)	(10)	(9)	(9)	21	(8)	
Refurbishment																				
Heavy	Point Ends		4	5	5	4	18	2	5	8	1		16	(2)	(1)	(3)	4	4	2	
Medium	Point Ends		8	3	8	10	33	19	18	16	6	6	65	(11)	(15)	(8)	4	(2)	(32)	
Off Track																				
Slab track	Track km																			

**Table 173: Western track renewal volumes
(route criticality 4)**

	BP18						Delivery Plan (mar 2014)						BP18 vs DP					
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Plain Line																		
Conventional																		
Steel Relay	Track km	0	2	2	2	0	7	1		2	3	5	(0)	2	2	0	(3)	1
Complete Renewal	Track km	0	0	2	0	0	3		1	1	1	1	0	(0)	1	0	(1)	0
Complete (formation)	Track km		1		0		1					0	0	1		0	(0)	1
Rail Renewal	Track km	2	3	3	2	2	12	3	3	3	3	3	15	(1)	0	(0)	(1)	(1)
Single Rail	Track km	1	1	1	0	1	4	1	1	1	1	1	3	1	0	0	(0)	0
High Output																		
Automated Ballast Cleaning (ABC)	Track km																	
Rail Sleeper Relay	Track km	5					5							5				5
Heavy Refurbishment	Track km	3					4							3			2	4
Refurbishment																		
Heavy Refurbishment	Track km	0					0							0				0
Medium (concrete)	Track km		1	0	1	0	1	3	4	4	4	4	19	(3)	(3)	(4)	(3)	(4)
Medium (other)	Track km	13	12	13	23	12	73	10	10	10	10	10	50	3	2	3	13	2
Switches & Crossings																		
S&C delivered																		
Abandonment	Point Ends	1	4				6	5					5	(5)	1	4		1
Full Renewal	Point Ends	1	7		1		9		1		12	4	17	(0)	7	(12)	(3)	(8)
Refurbishment																		
Heavy	Point Ends	4	5	3	4	17		2	5	5	5		17	(2)	(1)	0	(2)	4
Medium	Point Ends	4	2	5	5	2	17	3	4	8	10	10	35	1	(2)	(3)	(5)	(8)
Off Track																		
Slab track	Track km																	

**Table 174: Western track renewal volumes
(route criticality 5)**

	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Plain Line																			
Conventional																			
Steel Relay	Track km	2	2	1	1	0	6			1	3	4		2	2	0	1	(3)	3
Complete Renewal	Track km	2	2	1	1	0	6	1	5	3	5	2	16	1	(3)	(1)	(5)	(2)	(10)
Complete (formation)	Track km																		
Rail Renewal	Track km	5	3	3	2	2	14	3	3	3	3	3	14	2	(0)	0	(1)	(1)	1
Single Rail	Track km	0	1	1	0	0	2	1	1	1	1	2		(0)	0	0	(0)	0	0
High Output																			
Automated Ballast Cleaning (ABC)	Track km																		
Rail Sleeper Relay	Track km																		
Heavy Refurbishment	Track km					3	3												3
Refurbishment																			
Heavy Refurbishment	Track km																		
Medium (concrete)	Track km	0	1	1	2	0	4	10	10	10	10	11	51	(10)	(9)	(9)	(8)	(11)	(47)
Medium (other)	Track km	8	12	13	23	12	68	10	10	10	10	10	50	(2)	2	3	13	2	18
Switches & Crossings																			
S&C delivered																			
Abandonment	Point Ends	3				3								3					3
Full Renewal	Point Ends																		
Refurbishment																			
Heavy	Point Ends	2	5	6	3	4	20	8	7	1	2		18	(6)	(2)	5	1	4	2
Medium	Point Ends	4	1	4	4	2	15	8	1	7	10	3	29	(4)	0	(3)	(6)	(1)	(14)
Off Track																			
Slab track	Track km																		

Table 175 Western: buildings and civils volumes

	BP18						Delivery Plan (mar 2014)						BP18 vs DP								
	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5			
Structures																					
Underbridges	m ²	11,232	6,544	1,815	1,952	2,452	23,995	11,211	8,015	5,901	6,497	12,783	44,407	21	(1,471)	(4,086)	(4,545)	(10,331)	(20,412)		
Overbridges (incl BG3)	m ²		1,525	355	210	1,708	3,798		1,235	711	1,236	958	850	4,990		(1,235)	814	(881)	(748)	858	(1,192)
Tunnels	m ²	1,274	931	36	3,219	404	5,864	2,108	4,386	2,983	2,405	3,134	15,016		(834)	(3,455)	(2,947)	814	(2,730)	(9,152)	
Culverts	m ²	2,507		81	87	269	2,944	510	98	85	192	16	901		1,997	(98)	(4)	(105)	253	2,043	
Footbridges	m ²		80		231	311		40	98	160	81	73	452		(40)	(18)	(160)	(81)	158	(141)	
Coastal & Estuary Defences	m	60	360			420						30	30		60	360		(30)	390		
Retaining Walls	m ²		150	50	160	256	616	150	714		40		904		(150)	(564)	50	120	256	(288)	
Earthworks	5-chain	477	950	507	321	180	2,435	502	478	345	338	305	1,968		(25)	472	162	(17)	(125)	467	
Track Drainage																					
Renewal	lm	1,850		565	5		2,421								1,850	565	5		2,421		
Refurbishment	lm		5,548	13,570	19,665	13,664	52,446									5,548	13,570	19,665	13,664	52,446	
New Build	lm			329			329									329			329		
EW Drainage																					
Renewal	lm			3		39	42	2,129	2,292	1,600	1,507	1,154	8,683		(2,129)	(2,292)	(1,597)	(1,507)	(1,115)	(8,641)	
Refurbishment	lm					340		337	162	152	152	1,142			(340)	(337)	(162)	(152)	(152)	(1,142)	
Maintenance	lm			183		183		833	1,011	157	238	70	2,309		(833)	(1,011)	(157)	(55)	(70)	(2,126)	
New Build	lm																				
Franchised Stations																					
Footbridges	m ²	70	382	70	60	64	646	445	160		70		675		(375)	222	70	(10)	64	(29)	
Train Sheds	m ²							4,000					4,000		(4,000)					(4,000)	
Canopies	m ²	3,500	1,918			5,418		2,329	4,594	1,372			8,295		1,171	(2,676)	(1,372)			(2,877)	
Platforms	m ²	1,125	245			1,370		600	1,358	1,058			3,016		525	(1,113)	(1,058)			(1,646)	
Buildings	m ²		160	1,076	1,624		2,860	3,472	1,076				4,548		(3,472)	(916)	1,076	1,624		(1,688)	
Lifts & Escalators	No.		7			7		5	2	2	3		12		(5)	5	(2)	(3)		(5)	
Managed Stations																					
Footbridges	m ²				100	100											100	100			
Train Sheds	m ²			7,665		7,665							6,000	6,000		7,665	(6,000)	1,665			
Canopies	m ²							144		600	1,325	2,069				(144)	(600)	(1,325)	(2,069)		
Platforms	m ²	15	100			115		100	100	100	100	100	500			(85)	(100)	(100)	(100)	(385)	
Buildings	m ²			2,273	2,273				1,204		1,906	3,110					(1,204)		367	(837)	
Lifts & Escalators	No.		1			1		1					1			(1)	1				
Light Maintenance Depots																					
Buildings	m ²							1,162		1,162							(1,162)		(1,162)		
Depot Shed	m ²	25,950	2,713	2,373		31,036		26,888					26,888			(938)	2,713	2,373		4,148	
Lineside Buildings																					
Buildings	m ²																				
MDU																					
Buildings	m ²			690		690										690		690			

Table 176 Western: signalling renewal volumes

		BP18						Delivery Plan (mar 2014)						BP18 vs DP							
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5		
Full Conventional Resignalling	SEUs		14			20	33		118			118			(104)			20	(85)		
ERTMS Resignalling	SEUs								115		146	179	439			(115)	(146)	(179)	(439)		
Partial Conventional Resignalling	SEUs	137	352	213	3	459	1,164	591	585	271			1,447			(59)	3	459	(283)		
Targeted Component Renewal	SEUs					1	1	76	4	4	4	4	94			(76)	(4)	(4)	(93)		
Modular Resignalling	SEUs											37	37					(37)	(37)		
Level Crossing Renewals	No.	2	5	4	3	2	16	16	9	2	2	5	34			(14)	(4)	2	1	(3)	(18)

Table 177 Western: elec'n and plant renewal volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP					
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Contact Systems													
Overhead Line Equipment (OLE) Re-wiring	wire runs												
Mid-life Refurbishment	wire runs												
Structure Renewals	No.							1	1	1	3		(1)
Conductor rail													(1)
Renewals	km												(3)
AC distribution													
HV Switchgear Renewal	No.												
Booster Transformers	No.												
DC distribution													
HV Switchgear Renewal	No.												
HV Cables	km												
LV Switchgear Renewal	No.												
LV Cables	km												
Transformer Rectifiers	No.												
Fixed plant													
Signalling Power Cable Renewal	km	12	5	24	112	154		55	66	45	32	21	218
Principle Supply Point Renewal	No.												(42)
Rail Heating													
Points Heating Renewal	Point End							17	19	9	45		(17)
													(19)
													(9)
													(45)

Table 178 Western: telecoms renewal volumes

	BP18	Delivery Plan (mar 2014)						BP18 vs DP											
		2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5
Station Information and Surveillance Systems																			
Customer Information Systems	No.	18	17			35				8		8		18	17	(8)		27	
Public Address	No.	16				16		382		11	22		415	(366)	(11)	(22)		(399)	
CCTV	No.		339		158	497		253			16		269	(253)	339	(16)	158	228	
Clocks	No.		8			8			4			4		4				4	
Operational Comms																			
PABX Concentrator	No. of Lines								358		358					(358)		(358)	
Processor Controlled Concentrator	No. of Lines	14				14								14				14	
Driver-Only Operation: CCTV	No.																		
Driver-Only Operation: Mirrors	No.																		
Public Emergency Telephone System	No.	7		5		12			7		7			7	7	(7)	5	5	
Human Machine Interface Large	No.									5		5				(5)		(5)	
Human Machine Interface Small	No.																		
Radio System	No.		3			3									3			3	
Power Systems	No.	7		27	19	53			2	11		13		7	(2)	16	19	40	

Table 179 Western: maintenance volumes

		Code	BP18						Delivery Plan (mar 2014)						BP18 vs DP						
			2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	2014/15	2015/16	2016/17	2017/18	2018/19	CP5	
Track	Plain Line Tamping (km)	Km	MNT004	547	448	463	348	440	2,245	402	408	427	434	441	2,112	145	40	36	(86)	(1)	133
	Plain Line Stoneblowing (km)	Km	MNT005	246	168	181	250	250	1,096	196	196	191	191	196	970	50	(28)	(10)	59	54	126
	Manual Wet Bed Removal	Bay	MNT006	3,141	3,256	2,782	2,639	2,677	14,495	2,419	2,480	2,540	2,560	2,600	12,599	722	776	242	79	77	1,896
	Mechanical Wet Bed Removal	Bay	MNT012	1,127	1,296	964	690	1,296	5,373	1,150	1,100	1,100	1,050	1,000	5,400	(23)	196	(136)	(360)	296	(27)
	S&C Tamping	Point End	MNT007	268	223	182	135	302	1,110	536	520	500	500	500	2,556	(268)	(298)	(318)	(365)	(198)	(1,446)
	Rail Changing - Al-Thermic Weld - Standard Gap	Weld	MNT044	1,424	2,172	2,629	2,448	1,862	10,535	1,550	1,490	1,470	1,460	1,460	7,430	(126)	682	1,159	988	402	3,105
	Rail Changing - CWR - Renew (defects)	Rail Yards	MNT045	11,171	8,637	9,802	11,517	9,809	50,936	8,400	7,800	7,500	7,500	7,500	38,700	2,771	837	2,302	4,017	2,309	12,236
	Mechanical Reprofiling of Ballast	Mile	MNT017	241	178	209	228	200	1,056	325	270	235	200	185	1,215	(84)	(92)	(26)	28	15	(159)
	Manual Reprofiling of Ballast	Rail Yards	MNT020	185,847	211,099	210,780	237,749	193,979	1,039,455	155,398	145,398	137,398	137,398	137,398	712,990	30,449	65,701	73,382	100,351	56,581	326,465
	Replacement of Pads & Insulators	Sleeper	MNT029	40,114	74,918	104,912	84,963	16,448	321,354	74,600	75,400	76,500	77,500	77,500	381,500	40,114	74,918	104,912	84,963	16,448	321,354
	Manual Correction of PL Track Geometry (CWR)	Track Yard	MNT036	179,127	198,093	197,123	143,222	108,650	826,215	66,011	55,805	45,405	32,405	32,355	231,981	104,527	122,693	120,623	65,722	31,150	444,715
	Manual Correction of PL Track Geometry (jointed)	Track Yard	MNT037	86,432	103,578	99,575	90,466	77,152	457,203	49	49	47	49	49	243	20,421	47,773	54,170	58,061	44,797	225,222
	S&C Renew Crossing	Crossing	MNT120	56	76	55	47	58	292	42,400	42,520	42,640	42,700	42,820	213,080	7	27	8	(2)	9	49
	S&C Maintenance	Point End	MNT122	39,330	41,486	42,613	41,038	32,125	196,591	68	66	66	66	66	332	(3,070)	(1,034)	(27)	(1,662)	(10,695)	(16,489)
	S&C Renew Half Set of Switches	H/S Switch	MNT123	72	70	63	85	92	382	178	183	188	193	193	935	4	4	(3)	19	26	50
	S&C Stoneblowing	Point End	MNT124	66	74	124	81	112	456	782	762	792	692	842	3,870	(112)	(109)	(64)	(112)	(81)	(479)
	Rail Grinding Plain Line	Miles	MNT309	1,140	1,744	467	979	182	4,512	600	600	600	600	600	3,000	358	982	(325)	287	(660)	642
	Rail Grinding S&C	Point End	MNT310	311	364	1,127	369	513	2,684	73,046	73,046	73,046	73,046	73,046	365,230	(289)	(236)	527	(231)	(87)	(316)
	Fences & Boundary Walls	Yard	MNT072	34,250	51,952	48,561	55,929	38,138	228,830	73,440	76,440	76,440	76,440	76,440	238,200	(38,796)	(21,094)	(24,485)	(17,117)	(34,908)	(136,400)
	Drainage	Yard	MNT073	11,362	46,042	47,872	74,715	34,300	214,291	1,889	1,889	1,889	1,889	1,889	9,445	(65,078)	(30,398)	(28,568)	(17,725)	(42,140)	(167,909)
	Level Crossing Management - Off Track	Each	MNT075	593	748	1,476	4,948	1,184	8,949	3,255	2,305	2,305	2,305	2,305	12,475	(1,296)	(1,141)	(414)	3,059	(705)	(497)
	Vegetation Removal of Boundary Trees	Number	MNT081	955	3,916	180	2	19,000	24,053	25	30	30	30	30	145	2,300	1,611	(2,125)	(2,303)	16,695	11,578
	Vegetation Management by Train	Mile	MNT082	1,000	0				1,000	1,417,027	1,417,027	1,417,027	1,417,027	1,417,027	7,085,135	975	(30)	(30)	(30)	(30)	855
	Vegetation Management (manual)	Square Yard	MNT170	494,261	631,377	429,490	363,794		1,918,923	1,417,027	1,417,027	1,417,027	1,417,027	1,417,027	7,085,135	(922,766)	(785,650)	(987,537)	(1,053,233)	(1,417,027)	(5,166,212)
	Vegetation Management (mechanised)	Mile	MNT171	679	93				772	258	258	258	258	258	1,290	421	(165)				256
	Vegetation Management (mechanised)	Square Metre	MNT171			1,113,171	1,800,592	865,897	3,779,660							2	32	12	46		
Offtrack	Maintain Conductor Rail	Various	MNT206	2	32		12		46							637	308	514	842	839	3,140
	Maintain DC Traction Power Supplies	Each	MNT209	637	308	514	842	839	3,140							4,817	6,720	7,213	3,626	24,741	47,117
	Maintain OHL Components	Various	MNT211	5,186	7,089	7,582	3,995	25,110	48,962	369	369	369	369	369	1,845	(9,455)	(845)	(1,124)	(1,353)	(2,006)	(14,782)
	Maintain Points Heating	Each	MNT212	8,385	16,996	16,716	16,488	15,834	74,418	17,840	17,840	17,840	17,840	17,840	89,200	1,697	1,785	(11)	840	(1,107)	3,204
	Maintain Signalling Power Supplies	No.	MNT213	8,041	8,129	6,333	7,184	5,237	34,924	6,344	6,344	6,344	6,344	6,344	31,720	(1,148)	(2,730)	(2,766)	(1,245)	(431)	(8,320)
	Visual Examinations	No.	MNT226a	7,051	5,838	6,106	7,047	7,682	33,724	8,199	8,568	8,872	8,292	8,113	42,044	(1,032)	1,857	1,273	81	583	4,826
	Tunnel Examinations	Number minor elements	MNT220	13,156	13,981	13,397	12,205	12,707	65,446	12,124	12,124	12,124	12,124	12,124	60,620	(1,448)	(170)	(53)	(533)	(80)	(1,284)
Buildings	Detailed Examinations	No.	MNT221	1,097	1,089	1,101	1,159	1,618	6,064	1,545	1,259	1,154	1,692	1,698	7,348	(42)	85	49	(14)	78	156
	Underwater Examinations	No.	MNT222	191	215	192	214	207	1,019	233	130	143	228	129	863	(16)	79	804	(3)	113	977
	Ancillary Structure Examinations	Number detailed	MNT223	191	274	909	275	271	1,920	207	195	105	278	158	943	(12)	(33)	(44)	(33)	(85)	(207)
	Hidden Critical Element Examinations	No.	MNT224	74	57	49	54		234	86	90	93	87	85	441	(660)	(610)	(730)	(650)	(918)	(3,568)
	Load Carrying Assessments	Number spans	MNT225	195	308	188	268		959	855	918	918	918	918	4,527	11	(1,663)	(1,673)	(1,656)	(1,809)	(6,790)
Cables	Visual Examinations	Each	MNT226	1,814	141	131	147		2,233	1,803	1,804	1,804	1,803	1,809	9,023	(32)	(32)	(11)	(3)	(64)	(142)
	5 Yearly Examinations	Each	MNT227	36	36	58	67		197	68	68	69	70	64	339						