



OFFICE OF RAIL REGULATION



Network Rail Monitor

Quarter 2 of Year 5 of CP4 | 21 July 2013 – 12 October 2013

Overview

Passenger train performance

At the end of Quarter 2 (Q2) (21 July 2013 to 12 October 2013) punctuality as measured by the [Public Performance Measure](#) (PPM) [MAA](#) varied between 0.9 percentage points (pp) behind target for regional services and 5.1pp behind for long distance services. Some 122,600 services missed their PPM target during Q2. The company faces a substantial financial penalty at the end of 2013-14 if it does not achieve its target for long distance services.

Despite relatively benign weather during Q2, performance deteriorated and the downturn in Scotland now means there is a real danger that all sectors will miss their regulated performance outputs at the end of the current [control period](#) (CP4). This monitor provides some detail on the various causes of delay (pages 4-5).

With just four months of CP4 left, Network Rail must make appropriate use of all the funding it has and put in every effort to close the performance gap by the end of March 2014. Clearly preparing for winter will be a key part of this. We will be looking to the company's quarterly reports on performance in all sectors for evidence that it is doing everything reasonably practicable to close the performance gap. The reports will also indicate what shape Network Rail will be in to deliver the challenging but achievable targets [we have set for the next control period](#) (CP5).

Separately, early indications are that Network Rail worked well with the train operators to manage the impact of the severe storm which struck parts of the country on 28 October.

Freight train performance

At the end of period 7 (15 September 2013 – 12 October 2013), delays to freight trains were 5.8% behind target. However the

industry appears to have recovered from the disruption caused by the Hatfield Colliery landslip and performance is improving (page 7).

Asset management

Asset management is fundamental to train performance, efficiency and safety. In the first two quarters of 2013-14 there were 4.8% more infrastructure incidents across the network than last year causing 7.8% more delay to trains, which equates to about 1.7 million minutes. Ageing assets eventually have to be renewed as maintenance costs increase and performance deteriorates. Deferral of renewals scheduled for completion earlier in CP4 means that the company needs to do more work in the next four months than it has previously done. Although this work is funded Network Rail has indicated that it is unlikely to deliver. This reinforces why we have set tighter asset management outputs for CP5 and will be monitoring these much more closely.

Developing the network

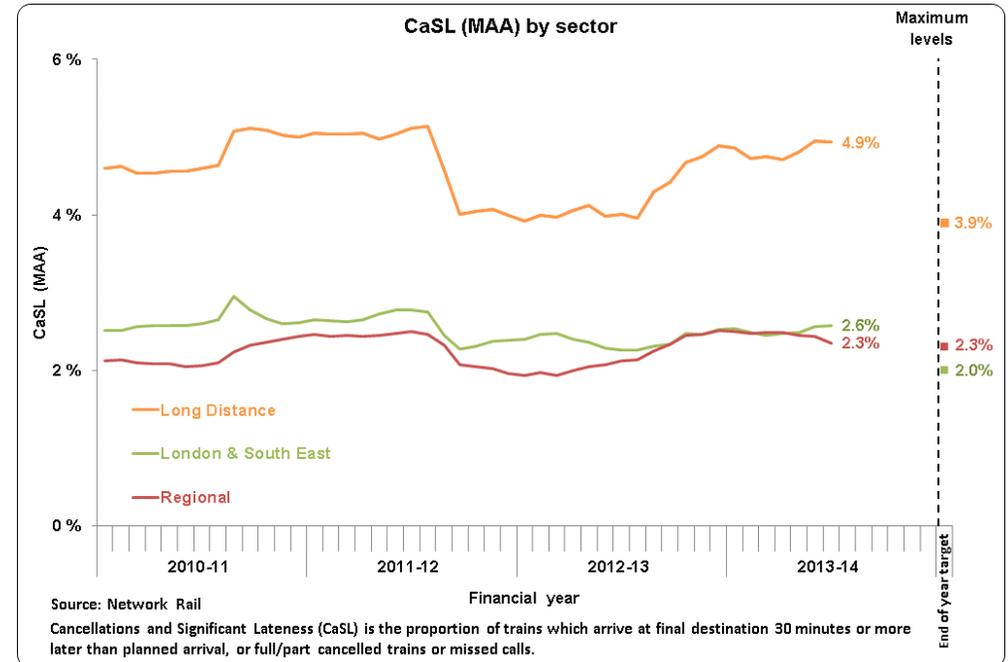
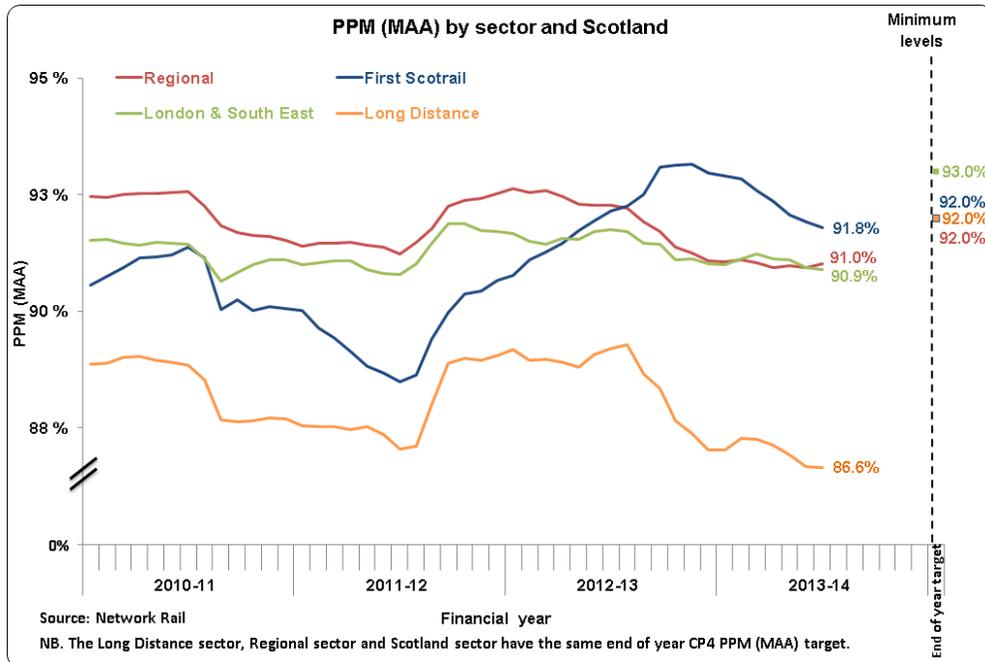
Network Rail remains generally on course to deliver the programme of enhancements agreed for CP4. The completion of the major re-signalling work at Nottingham in August was a notable achievement bringing benefits to passengers in the form of enhanced capacity and improved performance. We are continuing to monitor projects which are at risk, notably the Great Western electrification programme (page 10).

In this Q2 edition of the Network Rail Monitor, we focus mainly on England and Wales - we publish a separate edition covering Scotland ([available here](#)).

Train service performance

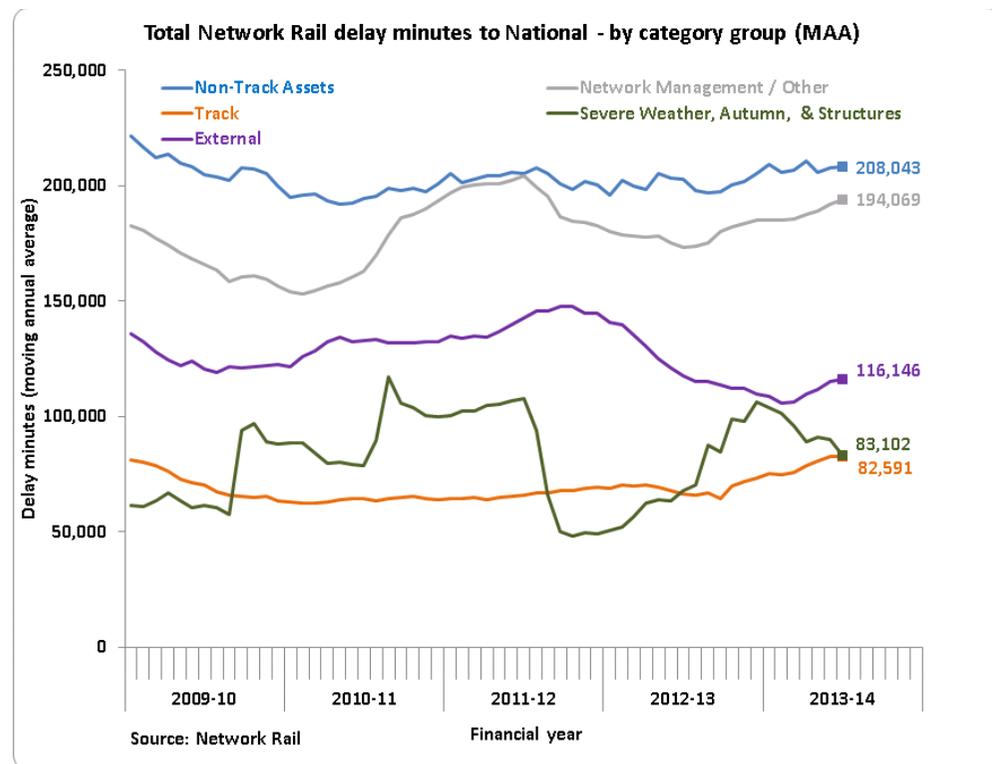
ORR has continued to monitor Network Rail's performance closely since finding the company in breach of its licence for not doing everything reasonably practicable to achieve its regulated performance targets in the long distance (LD) and London and Southeast (LSE) sectors at the end of 2012-13. Network Rail is accommodating an extra 148,000 services nationally compared with the same time period in 2008-09, but it is not meeting the performance targets it has been funded to deliver. Punctuality as measured by PPM (MAA) in England and Wales is currently 90.6% which is about the same as it was at the end of the last control period, CP3 (March 2009).

PPM (MAA) for LD services is currently 86.6%, which is 0.6 percentage points (pp) worse than in March 2009. On an annual basis this equates to around 73,000 trains arriving more than 10 minutes behind schedule. [Cancellations and significant lateness](#) (CaSL) performance against target at the end of period 7 was behind trajectory for LD and LSE operators whilst on target for those in the regional sector. The recent downturn in performance in Scotland now means there is a very real danger that all regulated performance outputs could be missed.



Nationally, up to period 7 28% of delays to passenger services were caused by train operators themselves, for example, rolling stock defects. Another 13% were caused by other train operators, for example where a train is delayed by a broken down train ahead. The chart on page 5 sets out the picture for each operator.

Delays classed as caused by Network Rail accounted for 59% of the total. The graph below shows the main categories of Network Rail caused delay up to period 7. We will be publishing this data broken down by operator later in Q3.

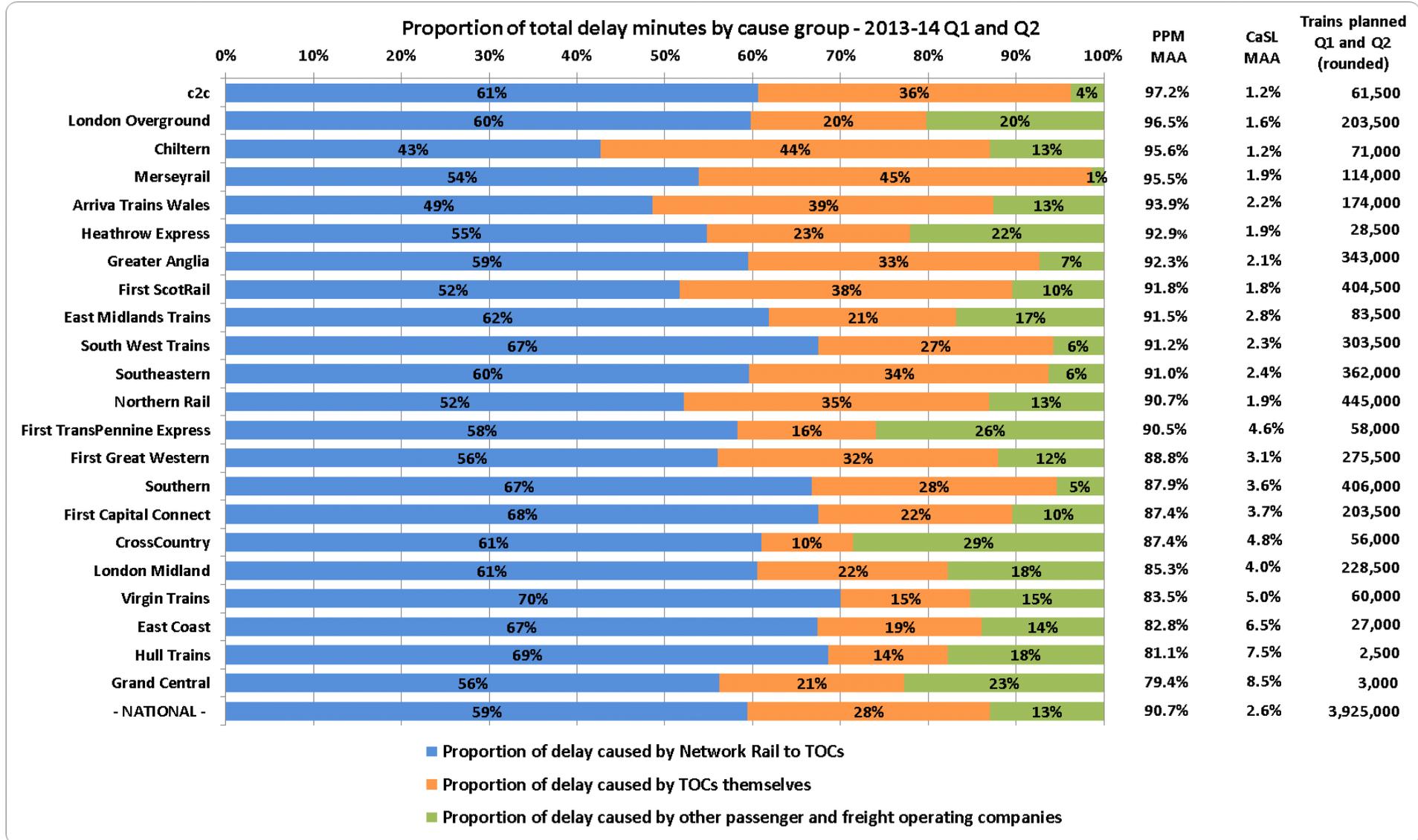


The number of delay minutes caused by track faults is 34% higher than at this point in 2012-13 and we note that 15% less plain line track renewal work than planned has been completed. Delays due to overrunning engineering work and timetable planning errors both increased (overruns by 99% compared to this time last year, and planning errors by 11%). We will be looking closely at the systems and processes Network Rail uses to ensure that it is doing everything reasonably practicable to prevent these types of delays.

External delays (such as trespass and animals on or near the line) are 11% worse than last year. The upward trend in railway suicides is a factor here; Network Rail in conjunction with industry stakeholders and the Samaritans, continues to take steps to reduce the number of suicides on the railways.

Weather-related delays were 63% less than at the same point last year. However autumn and winter are often challenging times for railway operation and we need to see evidence that Network Rail has prepared adequately. Our current view is that more can be done, especially managing line side vegetation and installing and maintaining heating for electricity conductor rails and points, vital to operation during cold weather. Network Rail needs to work with operators to resolve the shortages of drivers to operate seasonal treatment trains for autumn and winter. (See page 9 for further details on winter preparation.)

We are currently reviewing Network Rail's performance report for Q2 which is key to helping us establish if it has done everything reasonably practicable to achieve its regulatory targets.



Sector performance

Long distance passenger trains

Long distance (LD) PPM MAA is currently 86.6% which is 5.1 pp behind target. CaSL is behind target by 1.0pp at 4.9%. This equates to around 27,000 trains a year.

Network Rail faces a financial penalty of £1.5m for every 0.1pp it is behind target at the end of CP4 (March 2014). The MAA figure currently takes account of the very poor periods 9 to 11 last year, but if LD performance does not improve the penalty could be in excess of £80m.

Network Rail's London North Western route has recently made good progress in delivering projects on the southern part of the route, such as line-side fencing (to reduce trespass) and dealing with overhead wire defects. These have helped to deliver better performance for Virgin Trains. By contrast performance on the London North Eastern route has deteriorated and Network Rail has delivered a less effective service to operators, including East Coast, on this route. Network Rail delay minutes affecting East Coast are 8.8% worse than target and 11.3% worse than at the same time last year. We will continue to give close attention to performance on this important route.

London and South East passenger trains

Our investigation into the LSE sector in 2012-13 concluded that Network Rail had breached its licence by not doing everything reasonably practicable to meet its performance targets. However, there were positive signs of recovery and we therefore decided not to impose a financial penalty. Since then punctuality has not improved as expected. In fact it has declined from 91.0% at the end of 2012-13 to 90.9% at the end of period 7 which is 2.0 pp behind the regulated target. The CaSL figure for this sector is 2.6% which is 0.6 pp behind target. Southern Railway in



particular has experienced a high number of cancellations and significantly late trains due to Network Rail's performance.

Network Rail caused delays affecting First Capital Connect have been well above target, especially on its Great Northern route. The operator has experienced track delays, network management issues including timetable planning errors and overrunning engineering works. We have asked Network Rail for a full explanation of the issues and its plans to address them.

Punctuality on Southern, Southeastern and South West Trains services has been below target. These three companies make up 51% of the sector and all three have experienced high levels of delays associated with network management causes, especially engineering work overruns. South West Trains has also been affected by track faults, which are 86.5% worse year to date than at the same time last year.

Regional passenger trains

Regional sector PPM MAA is 91.0% which is 0.9 pp behind target. CaSL for this sector is on target at 2.3%. We are monitoring the implementation of a recovery plan for the sector which Network Rail put in place in April 2013.



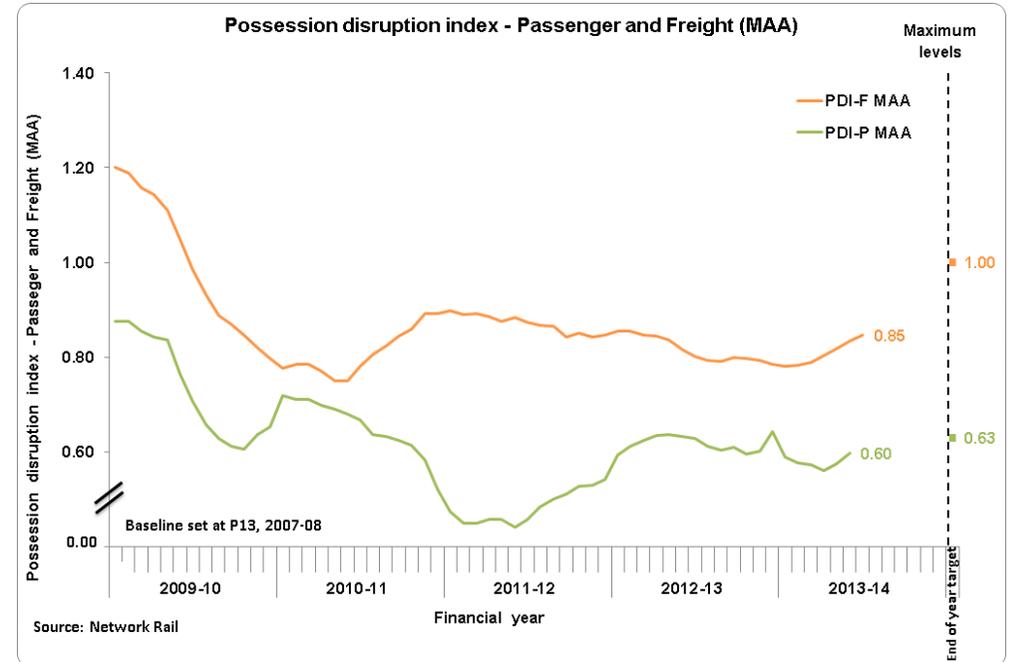
London Midland has experienced train crew shortages but the operator has taken steps to address this and there are signs of improvement. Northern Rail operates 42% of train services in the regional sector and is 0.3% behind target with a PPM MAA of 90.7%. Track faults have been a factor (34.1% worse year to date than at the same time last year). So have external delays such as trespass and animals on or near the line which are 22.2% worse. Delays caused to Northern by other operators are 45.6% worse than the [JPIP](#) target and ORR will be working with Network Rail to understand the implications.

Freight trains

The CP4 regulatory target for freight train performance is measured by the amount of Network Rail caused delay per 100 train kilometres. At the end of period 7 the MAA was 3.60 minutes per 100 kilometres which is 6.6% worse than the same point last year and 5.8% behind target. However, the industry appears to have recovered from the considerable disruption caused by the Hatfield Colliery landslip affecting the line between Doncaster and Goole. While the MAA is worse than target, performance in this quarter has been steady with three consecutive periods being better than target.

Disruption from planned engineering works

In periods 5-7 the figures for disruption caused by engineering works (known as PDI-P for passengers and PDI-F for freight) were better than target and disruption was significantly lower than at the start of the control period. Network Rail expects to better its PDI-F target for CP4 although there is some doubt about PDI-P. As the graph below shows, both measures have worsened but remain within the target.



Asset management

Asset performance

Asset performance is critical to train punctuality. During periods 1-7, there were 15,953 infrastructure incidents across the network, 4.8% more than over the same period last year. These incidents were associated with 1.7 million minutes of delay to trains, which is 7.8% more than last year. Network Rail has made progress reducing incidents and delays associated with civil engineering assets, but those for temporary speed restrictions, track faults, axle counter failures, telecoms failures and cable faults have all increased.

Asset renewals

Network Rail has deferred renewals work from earlier in CP4 for asset categories including plain line track, switches and crossings, level crossings and electrification. The result is that its delivery plan for this final year of CP4 requires a significantly higher volume of renewals than has previously been achieved.

In Q1 Network Rail did not deliver the higher volume of asset renewals it had planned. The situation improved in some areas during Q2, but significant shortfalls remain. For example, the volume of track switches and crossings is 32% ahead of plan for the year to date, but plain line track renewals are 14% below plan. [Underbridges](#) are 26% ahead of plan but earthworks are 16% below plan. Signalling volumes have recovered to 6% below plan but there is still little progress reported for DC system renewals. At the end of Q2 Network Rail further reduced its forecast of the renewal volumes it will deliver by the year end

for some key assets. For example, the forecast for plain line track is now 14% less than plan, 19% less for signalling and 43% less for level crossings.

Network Rail's latest forecast for plain line renewals amounts to a shortfall over CP4 as a whole of about 600 kilometres, equivalent to four months' delivery at current productivity. There are likely implications for performance and sustainability of the network and we expect Network Rail to redouble its efforts to recover the programme which was fully funded. The company is completing an analysis of the forecast shortfalls to determine the impact on sustainability. We will be reviewing the results of the work and how the safety, performance and maintenance risks from deferrals are being managed.



Track quality

Delay minutes attributed to track faults (including broken rails) have increased by 34% compared to the same period last year although the position appears to have stabilised. Poor track geometry has also been increasing on the principal South Eastern commuter and Western routes and Network Rail's own stewardship reports suggest shortfalls in the company's management of secondary and rural lines. As well as the deferred renewals work, routine maintenance activities such as [tamping](#) have fallen by around 30-40% on average compared with the start of CP4. We are reviewing track quality to understand more clearly the reasons for the deterioration and what measures Network Rail has in place to improve the situation.

Civil engineering assets

Network Rail continues to review and improve its data describing bridge, culvert and other civil engineering assets so that a robust and consistent asset register is available for the start of CP5. This work is also linked to the programme of assessments which will conclude at the end of CP5 providing up-to-date strength assessments for Network Rail's bridges.

Strengthening Network Rail's management of civil engineering assets at working level in the routes is a key requirement of its Buildings and Civils Asset Management transformation programme (BCAM). We have appointed the independent reporter Arup to carry out a short review of progress, reporting in early December.

Earthworks remains an area of concern to ORR. Network Rail has carried out a detailed analysis of reasons for the 144 incidents that occurred last year and the results have been used to review standards and asset policies. We will continue to review progress closely and expect to report in more detail in the next monitor when Network Rail should have made significant progress against its programme of planned improvements in the management of earthworks.

The government's £250m fiscal stimulus package for additional maintenance and renewal works for civil engineering assets is due to conclude on 31 March 2014. Over 1000 projects were identified and progress is well advanced across all routes. We have appointed the independent reporter Nichols to carry out a review of a sample of these to provide assurance of effective selection and delivery of these works.

Winter preparations

Network Rail as steward of the national railway is expected to manage weather related risks to the greatest extent practicable. We expect preventative measures such as vegetation management, drainage work, and rail heating to be put in place and checked to mitigate the effects of adverse weather as far as possible and to ensure that recovery time after an event is minimised.

Developing the network

Achievements

Network Rail completed some major re-signalling work at Nottingham station in August 2013. The new signalling equipment and new platform were brought into operational use and will improve the flow of trains and help reduce delays at the station. Network Rail has also completed the platform lengthening necessary for the planned introduction of 10-car trains on the Windsor lines.

Preparing for CP5

Network Rail is working hard to design and develop projects for the next control period, including projects like Northern Hub and Trans Pennine electrification that are not due for completion until 2018.

In this context Network Rail needs to engage with its suppliers to give better visibility of future contracts and workloads, and in some cases place contracts now so that suppliers have the certainty to recruit the necessary specialist skills needed for future work.



Projects at risk

As we reported in the last monitor, we are concerned that the complex set of projects on the Great Western mainline is not sufficiently defined and integrated to achieve the major timetable changes planned for the next control period. We have escalated this issue within Network Rail. It is strengthening the route-wide governance arrangements. We will be reviewing the company's evidence during Q3 to build confidence that it is on course to deliver its obligations.

There are several projects that are planned to be completed in December just in time for the new December 2013 timetable. For example, the completion of new platforms on the Finsbury Park to Alexandra Palace upgrade project and the 10-car train lengthening project on Sussex routes. There is also a blockade at Gatwick over Christmas to commission new platforms.

These and other projects add up to a significant workload over the forthcoming Christmas / New Year bank holiday period and in the past few months Network Rail has been trying to address identified shortages of some critical resources, particularly signal testers. We will be reviewing evidence of Network Rail's internal readiness reviews before Christmas to gain assurance that its plans for this busy period have been scrutinised and delivery risks are being managed.

We welcome your feedback on this publication. Please address your comments or queries to:

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We publish the *Network Rail Monitor* every three – four months, focusing on Network Rail’s delivery of its obligations to its customers and funders, for which it is mainly accountable under its network licence. We use colour flags to show at a glance our current level of concern with an issue:

Network Rail delivery is satisfactory or good.



Network Rail delivery is currently unsatisfactory and/or we have some concerns about future delivery. We have raised the issue with Network Rail.



The issue is subject to special scrutiny, with intensive investigation and enhanced monitoring.



We have major concerns about current and/or future delivery.



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