



OFFICE OF RAIL REGULATION



# Network Rail Monitor Scotland

Quarters 1-2 of Year 1 of CP5  
1 April to 11 October 2014

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# Executive summary



This Monitor provides ORR's assessment of Network Rail's performance in Scotland over the first half of 2014-15, the first year of [Control Period 5 \(CP5\)](#).

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## Safety



Network Rail has controlled public risk well, with no notable train incidents and no significant injuries to passengers on trains. Significant reductions have been made in level crossing risk. But more needs to be done to improve workforce safety.

## Performance and punctuality



Train performance in Scotland began the year strongly. The railway rose to the challenges of greatly increased passenger numbers during the Commonwealth Games and the Ryder Cup. We expect Network Rail and First ScotRail meet their end of year targets.

## Asset management



Network Rail has generally delivered less than the planned level of maintenance and renewal work so far this year, and the plans, particularly for track and civils renewals, become more demanding in the second half of the year.

## Enhancements



Network Rail is responsible for completing over £1bn of enhancement projects in Scotland in CP5. Performance in the first half of 2014-15 has been mixed, with good progress on some projects but also some missed regulatory milestones.

## Expenditure and finance



Network Rail's financial performance in Scotland for the year to date is £4m better than Network Rail's own budget. Full year forecast financial performance in Scotland is £5m adverse to the regulatory target which is significantly better than for the company overall.

# Overview



Train performance in Scotland was relatively strong at the beginning of 2014-15, exceeding targets, but dipped during the Commonwealth Games. However, the railway rose to the challenges of greatly increased passenger numbers during the Games and the Ryder Cup. Robust planning and an agile response to problems that did arise, led to a generally positive rail travel experience during these events. Following the Games, train performance recovered well, but was showing signs of decline towards the end of the second quarter of 2014-15.

Passengers will soon see the benefit from two key enhancement projects. Both the Rutherglen to Coatbridge electrification and stabling improvements at Motherwell are now complete and will allow significant service enhancements to proceed as planned at the December 2014 timetable change. The Borders railway project is progressing well. Track laying is underway and work is on schedule to see the first passenger trains running in autumn 2015.

Network Rail has controlled public risk well, with no notable train incidents and no significant injuries to passengers on trains. Significant reductions have been made in level crossing risk through equipment upgrades and closures, although there is scope for further progress. Safety at larger stations also merits further attention to reduce the number of customer injuries through slip, trip and fall incidents.

The workforce safety picture is less positive. More work is needed to drive the safety culture change needed to underpin real improvement.

Network Rail has generally delivered less than the planned level of maintenance and renewal work so far this year, and the plans, particularly for track and civils renewals, become more demanding in the second half of the year. We are holding Network Rail to account for the impact of its under-delivery on sustainability, and seeking assurance that the lost work will be recovered during CP5.

Network Rail budgetary control in Scotland in CP5 to date has been good although we are working to strengthen financial reporting within the Route. This includes accurate forecasting of the financial impact of maintenance, renewal and enhancement decision making.

# Health and Safety



ORR inspects, investigates and where necessary, takes enforcement action to ensure compliance by Network Rail, train operating companies (TOCs) and freight operating companies (FOCs) with health and safety law.

There are no regulated outputs for health and safety performance, but Network Rail sets key performance indicators as part of its health and safety management system

## Infrastructure safety

### Track

Track condition in Scotland is sufficient to allow safe operation of the network, but absolute standards have declined in recent years, reducing general quality and leading to ORR interventions. Network Rail needs to continue to act to arrest the decline and to that end is implementing a 24- point plan to improve track risk management and reduce the number of repeat twist faults. The action plan was developed after we issued an [Improvement notice](#) in 2013 citing particular problems in the far north of Scotland, but applicable throughout the country. We will be undertaking further inspections to monitor the effectiveness of the plan and will be focusing on the far north where significant challenges exist including underlying asset condition, asset policy, supervision, inspection

regime, labour resources, geography and previous maintenance interventions.

## Electrification

Operational safety of the [overhead line equipment \(OLE\)](#) in Scotland has been good, but there have been a number of irregularities in the setting up or removal of electrical isolations to protect staff against electrical danger from OLE when working on or near it. As a result ORR is investigating two incidents where contractors failed to correctly follow isolation processes.

We are also investigating an incident at Ardrossan in which a child was seriously injured when a length of wire he was dangling from a bridge came into contact with live overhead line equipment.

## Level crossings

The overall measure of risk at level crossings in Scotland is at a record low at 0.311 Fatalities and Weighted Injuries (FWI) per year.

The risk reduction has been achieved by Network Rail continuing to contribute to national initiatives and roll out of changes within the company's strategic framework, including completing the main phase of half-barrier installation at

automatic open crossings, closing public and private crossings and improving crossing risk assessments, and acting on the findings.

More work is required to reduce the level of risk at private crossings, where we expect to see Network Rail delivering on its strategy to install equipment that provides users with clear indication of when it is safe to cross.

## Worker health and safety

Workforce safety performance in Scotland has declined since 2013-14 and at the end of [Period 7](#) the workforce and contractor FWI was 0.22, double that at the same time last year and well below KPI target. A worker died in a road traffic accident away from the railway site and a contractor received serious injuries when a quad bike he was using drove over a cutting slope. In total there have been ten [RIDDOR](#) specified injuries.

There does not appear to be a single key driver to this, but we believe that there is a contribution from ingrained poor practice yet to be removed by safety culture improvement. The largest contribution to the figure comes from incidents within Network Rail's central control.

Because of this ORR believes Network Rail needs to improve its understanding and control of traditional health and safety risks among its employees and its contractors. We are undertaking a series of inspections at maintenance depots to establish root causes for these trends and promote the

changed behaviours and standards needed to bring about lasting improvement.

## Public safety

Control of public risk has been good. Such risk is dominated by relatively minor incidents (slips, trips and falls) at stations. These are concentrated at the major stations of Edinburgh Waverley and Glasgow Central, largely because of the sheer number of users.

Risk to customers from moving road vehicles has been eliminated at Edinburgh Waverley as a consequence of Network Rail's decision to remove access for public vehicles for security reasons. Sadly a member of the public was struck and killed outside Edinburgh Waverley Station in May 2014, when the driver of a vehicle reversed onto Waverley Bridge when confronted by the security barrier.

There were no accidental deaths or injuries at level crossings in Scotland during the period.

In common with a national trend the number of Signal Passed at Danger (SPADs) has increased from last year. In Scotland the total figure has risen by 44%. The dominant causes are related to train driver issues rather than infrastructure failing. Serious SPADs have halved in number.

# Train service performance



## Scotland level performance

We have agreed with Network Rail that we will take an input-based approach to monitoring Scottish PPM during the first two years of CP5. Network Rail has produced a CP5 Performance Plan which details the activities it will deliver to ensure that performance achieves the regulated target levels by 31 March 2016. We are monitoring the company's delivery of this plan and assessing whether it is doing everything reasonably practicable in the circumstances to achieve its performance targets. At the end of Period 7, Scotland [PPM \(MAA\)](#) was very slightly (0.2 percentage points (pp)) behind trajectory at 91.4%, and 0.4pp worse than at the same time last year.

We believe that performance levels in Scotland are as anticipated when the CP5 Performance Plan was produced. Network Rail's second quarterly report on delivery shows 27 Scottish milestones:

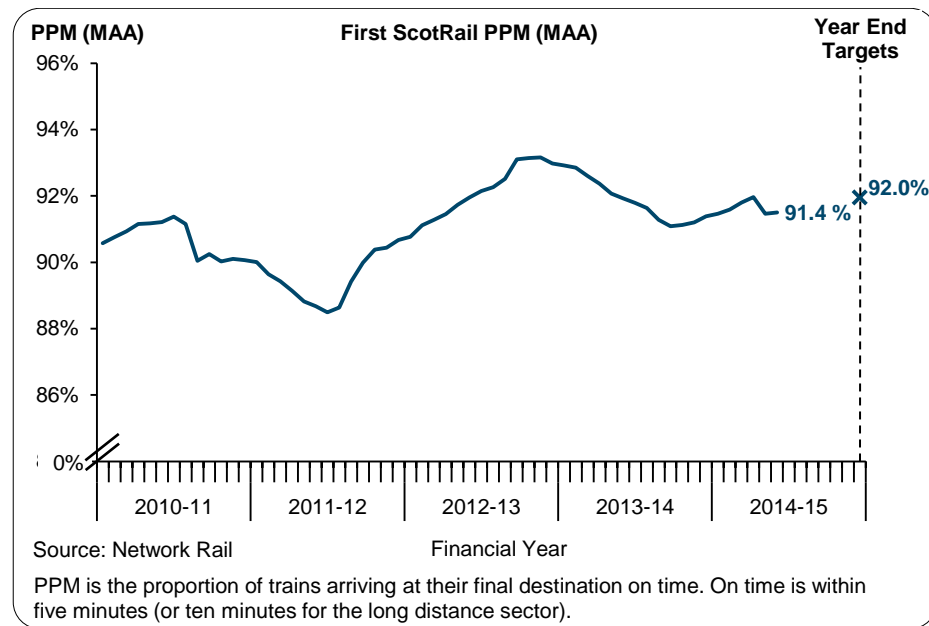
- 11 are forecast to be delivered to programme;
- 13 have been completed, including one which was delivered early;
- three are late or have slipped; and
- one has been added.

We have concluded that delivery of the Performance Plan in Quarter 1 (Q1) and Quarter 2 (Q2) was largely to programme. The majority of milestones showing slippage in Q1 have been delivered in Q2. The impact of the Q1 slipped milestones has therefore been contained to protect timely delivery without significant adverse performance impact. But as PPM MAA is slightly below target (as above) we will expect Network Rail to adjust the plan if this trend continues. We will continue to monitor delivery of the plan closely in Scotland.

In addition, we are monitoring Network Rail's delivery of regulated performance outputs (PPM) at TOC level as specified in the [Performance strategies](#) Network Rail has agreed with each operator. We expect First ScotRail (FSR) to meet its year one Performance Strategy PPM MAA target of 92%.



## TOC level performance



FSR performance during the first four periods of the year was strong, with the PPM MAA at the end of [Period 4](#) at 92%, 0.4% ahead of Performance Strategy target. Timetabling issues and increased demand during the Commonwealth Games impacted period PPM and consequently FSR failed to meet the profiled PPM MAA target contained in its Performance Strategy in [Periods 5, 6](#) and 7. We recognise that Network Rail and FSR acted pragmatically to ensure the successful movement of passengers rather than prioritising PPM at this time and note that period PPM improved following the Games.

Network Rail caused PPM failures at the end of Period 7 accounted for 48.6% of the total PPM failures across Scotland. Non Track assets in particular have caused 6,156 PPM failures year to date, 43.9% of the total share of PPM failures across Scotland caused by Network Rail. The total number of PPM failures is 1.6% better than at the same point last year.

## Delay minutes

Network Rail caused approximately 241,000 delay minutes to the end of Period 7. This represents a 10% reduction on the total for the first seven periods of 2013-14.

## Freight performance

National freight performance is measured by the Freight Delivery Metric (FDM). It covers delays for which Network Rail is responsible – i.e. not those caused by other operators - and measures the percentage of freight trains arriving at their destination within 15 minutes of scheduled time. FDM MAA at the end of Period 7 stands at 93.7%, 1.2pp ahead of the annual target of 92.5%. We anticipate that as a result of this strong performance Network Rail will meet its end of year FDM regulated target of 92.5%.



# Customer service



## Passenger satisfaction

Passenger Focus is scheduled to publish the results of its autumn 2014 National Rail Passengers' Satisfaction survey on 27 January 2015. We await these results with interest as they will give the first view of passenger satisfaction in CP5.

Passenger Focus has also published recent work identifying the key drivers of passenger satisfaction for each TOC. FSR passengers, as with those of the majority of operators, consider service punctuality and on train environment, including personal security issues, to be the most important drivers.

# Asset management



## Maintenance and renewals volumes

Maintaining and renewing the network is fundamental to Network Rail's responsibilities. Regular maintenance counters the effects of wear and aging to keep the assets safe and performing as intended. But eventually they have to be renewed when it becomes uneconomical or impractical to maintain them any longer.

Network Rail has set out in its asset policies its approach to maintaining and renewing the network sustainably and at least cost. The volume of work required during CP5 in accordance with these policies was set out by Network Rail in its 2014 delivery plan. We accepted the delivery plan in March (except for operational property, which Network Rail is reviewing), and we are now monitoring whether Network Rail delivers the volume of maintenance and renewals it said was necessary. So far Network Rail has reported delivering less work than it planned to do, in both maintenance and renewals.

At the end of period 7, [plain line](#) track renewals are 20% behind plan. Most of this year's work is planned for delivery in the second half of the year, so it remains to be seen whether Network Rail can improve as the volumes steps up. Its current forecast is to be 16% behind plan by year end. [Switches and crossings \(S&C\)](#) are 25% ahead of plan, but again most of this year's work is planned for delivery later in the year, and

Network Rail is forecasting to finish the year 8% behind plan. Work on civils assets is also mixed. [Underbridges](#) are 34% ahead of plan, but even so, less than 8% of this year's work has been delivered so far, and Network Rail is forecasting to finish the year 10% behind plan. Very little work has been delivered on earthworks so far, but Network Rail is forecasting to ramp up volumes substantially and finish the year 53% ahead of plan.

Some of the shortfalls to date reflect migration to the new CP5 supply chain, which should improve as the arrangements bed in. We are holding Network Rail to account for the impact of its underdelivery on sustainability, and seeking assurance that the lost work will be recovered during CP5.

Overall expenditure on renewals in Scotland is 12% below plan, reflecting the shortfall in volumes, and work in progress that has not yet been reported. If Network Rail spends more on delivering its plan than we funded in our determination, the excess cost is financial underperformance. Taking into account the undelivered work, Network Rail has reported no underperformance in Scotland so far. We will consider whether this is justified at the end of the year.

For CP5 we asked Network Rail to provide more detailed reporting on the volume of maintenance delivered, so we could see how it is performing by maintenance activity. According to the information reported at the end of period 6, both the volume of maintenance delivered and the volume forecast to be delivered by year end are substantially below the level set in the delivery plan for some activities. For example, boundary tree removal is forecast to finish the year 64% behind plan, drainage maintenance 31% behind plan, and fencing 43% behind plan. Network Rail believes more work has been done than has been reported, so we are seeking assurance that it is managing both maintenance and maintenance reporting effectively. In other areas significantly more maintenance is being delivered than planned. For example S&C maintenance and manual correction of plain line track geometry are both well ahead of plan and forecast to deliver twice the volume planned by year end. This suggests maintenance planning also needs to improve.

## Track

Broken rails and serious rail defects continue a reducing trend but 'poor track geometry' has shown a marked worsening over periods 4 and 5, albeit at a time of year when track geometry and quality historically suffers. It is encouraging that progress continues to be made in reducing the number of track geometry faults, but track issues are still a significant contributor to performance shortfall.

Over the last year one health and safety Improvement Notice has been issued in Scotland on repeat level 2 track twist defects, as mentioned in the health and safety section.

## Drainage

Earthworks and track both rely on the condition of drainage. Poor drainage can cause [wet beds](#) in track and eventually poor "top", or sudden failures in embankment or cutting slopes. There were many earthworks failures during the exceptionally wet weather last winter, which were partly attributable to historic problems with drainage. As already noted, drainage maintenance is behind plan, and we remain concerned whether Network Rail is doing enough in this area.

## Station buildings and operational property

Earlier in the year a backlog in operational property assessments came to light. Network Rail has established mitigation measures and is making good progress in developing a recovery plan. We are continuing to monitor progress closely.

# Developing the network



Network Rail is responsible for completing over £1bn of enhancement projects in Scotland in CP5. 2014-15 has seen good progress on some projects but also some missed regulatory milestones.

## Enhancement project progress

The **Borders Railway** project has progressed well and is on course to see passenger services start in autumn 2015. The first piece of track was laid at the northern end of the route in June 2014. Works on earthworks, bridges, ballast and sleepers is continuing to plan to enable installation of rails to progress towards Tweedbank.

The **Rutherglen and Coatbridge Electrification** project did not achieve the regulatory milestone to complete electrification of the Whifflet line by the end August 2014. This was due to several issues including some outside the project's control and caused First ScotRail to alter its plans for train services during the Ryder Cup at Gleneagles. However, Network Rail completed electrification of the line at the end of September 2014 which will facilitate the rolling stock and service changes planned for the December 2014 timetable change.

The **Motherwell Area stabling project** missed its milestone (May 2014) by a month, but the objective of enabling electric trains to operate to Cumbernauld was met, and there was no adverse impact on passengers.

Major works continue within the **Edinburgh – Glasgow Improvement Programme (EGIP)**. The Scottish Government has required changes to the phasing of works at Glasgow Queen Street to accommodate the Buchanan Galleries extension project. This has introduced risk that Network Rail may not be able to deliver some of the outputs as originally planned.

Network Rail is assessing the scale of the impact of this change on the project timescales and we will be reviewing its findings to determine if the programme is deliverable.

Network Rail is reporting it will deliver the programme of enhancement projects in CP5. The company has delayed early development of some projects but this is to allow discussions with the new ScotRail franchisee so the optimum project scope can be agreed.

# Efficiency and expenditure



## Overall financial performance

Network Rail's financial performance in Scotland for the year to date is £4m better than Network Rail's own budget, mostly due to lower Schedule 4 and 8 costs.

Full year financial performance forecast in Scotland is £5m adverse to target set out in ORR's Final Determination. This is significantly better than for the company overall. One of the main reasons for this variance is that no adjustment is currently considered necessary for train performance in Scotland.

Going forward ORR is increasing the extent of financial reporting required from Network Rail within the existing quarterly hold to account meetings. This is to increase the level of ownership of finance issues within the Route and drive better forecasting of the financial impacts of decisions related to management and enhancement of the network.

## Network Rail's total financial performance

### Comparison of income and expenditure

£m	2014-15 year to date			2014-15 full year forecast		
	Budget	Actual	Variance	Budget	Full Year Forecast	Variance
Turnover	45	46	1	86	90	4
Schedule 4	-9	-4	5	-20	-18	2
Schedule 8	2	2	0	0	2	2
Operations, support & maintenance	-135	-133	2	-241	-243	-2
Capex – Renewals	-145	-126	19	-335	-299	36
Capex – Enhancements	-171	-179	-8	-293	-314	-21
<b>Total</b>	<b>-413</b>	<b>-394</b>	<b>19</b>	<b>-803</b>	<b>-782</b>	<b>21</b>

### Total financial performance

	2014-15 year to date	2014-15 full year forecast
	Financial Performance	Financial Performance
Income less expenditure	19	21
Variances that do not count for financial out/underperformance (1)	-18	-19
Capex performance adjustment (2)	1	0
<b>Financial performance compared to Network Rail budget</b>	<b>2</b>	<b>2</b>
Network Rail budget compared to PR13 (3)	-2	-7
Adjustments for missed regulatory outputs (4)	0	0
<b>Total financial performance</b>	<b>0</b>	<b>-5</b>

## Notes

1. Variances that do not count for financial out/underperformance include items such as renewals that have been deferred to later in the control period.
2. The Capex performance adjustment is a deduction from the value of renewals and enhancements so that 25% is recognised as under or over performance, to be consistent with how we defined financial performance for CP5. This aligns with Network Rail's financial reward/penalty for renewals and enhancements expenditure through the RAB roll forward mechanism.
3. Network Rail started CP5 in a worse position than we assumed because it achieved lower efficiency savings in the final year of CP4 than we assumed in our PR13 determination. This meant that Network Rail has more work to do in CP5 to deliver the efficiency challenge set out in our PR13 determination.
4. The adjustment for missed regulatory outputs represents Network Rail's estimate of the value of an anticipated ORR adjustment for not meeting the train performance target in 2014-15 based on our work last year. We need to review this, so the final number may be different. Network Rail has also not recognised a proportion of this adjustment in the year to date figures.
5. In both tables a positive variance is favourable and a negative variance unfavourable.
6. This information is from the Network Rail Period 7 Finance Pack (period end 11 Oct 2014) and we are working with Network Rail on changes to the presentation of the Finance Pack to make it consistent with our PR13 Final Determination e.g. separately show operations and support costs.



**We publish the Network Rail Monitor every six 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 welcome your feedback on this publication. Please send your comments or queries to:**

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