

## **Office of Rail Regulation**

Independent Reporter's Assessment of  
Network Rail's Compliance with ORR's  
Section 55 Order, Issued 22 April 2008

Independent Reporter  
Final Report

April 2009

**Halcrow Group Limited**

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## **Halcrow Group Limited**

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## Contents Amendment Record

This report has been issued and amended as follows:

Issue	Rev	Description	Date	By	Checked	Approved
1	0	Internal draft	25/03/09	NS, DS, NF, JH, GB	GB	DS
2	1	Draft Final Report issued to Network Rail and ORR	30/03/09	NS, DS, NF, JH, GB	GB	DS
3	3	Final Report issued to Network Rail and ORR	14/04/09	NS, DS, NF, JH, GB	GB	DS

## Contents

<b>1</b>	<b>Executive Summary</b> .....	<b>6</b>
<b>2</b>	<b>Introduction</b> .....	<b>8</b>
	2.1 Background .....	8
	2.2 Independent Reporter Remit and Methodology .....	9
	2.3 Final Report Objectives and Structure .....	12
<b>3</b>	<b>Requirements of the Final Order and Network Rail's Plan</b> .....	<b>14</b>
	3.1 Introduction .....	14
	3.2 Requirements of the Final Order .....	14
	3.3 Network Rail's Approach and Progress .....	15
	3.4 Supplier Management.....	16
	3.5 Risk Management .....	17
	3.6 Site Management.....	19
	3.7 Communications .....	21
<b>4</b>	<b>Network Rail's Compliance with its Plan</b> .....	<b>23</b>
	4.1 Introduction .....	23
	4.2 Audit Constraints.....	24
	4.3 Approach and Status of Observations .....	25
	4.4 Supplier Management.....	26
	4.5 Risk Management .....	35
	4.6 Site Management.....	47
	4.7 Maintenance .....	53
	4.8 Communications .....	56
<b>5</b>	<b>Embedding the Improvements</b> .....	<b>63</b>
	5.1 Introduction .....	63
	5.2 Values, Culture and Behaviours .....	64
	5.3 Formal approval of Wlv1 .....	65
	5.4 Development of Level 3 Work Instructions .....	65
	5.5 Key Performance Indicators.....	65
	5.6 Observations in this Report.....	67
<b>6</b>	<b>Conclusions</b> .....	<b>68</b>
	6.1 Overview .....	68
	6.2 Supplier Management.....	68
	6.3 Risk Management .....	69
	6.4 Site Management.....	71
	6.5 Maintenance .....	71
	6.6 Communications .....	71
	6.7 Embedment.....	72
<b>7</b>	<b>Independent Reporter's Opinion on Network Rail's Compliance with the Final Order</b> .....	<b>73</b>
<b>8</b>	<b>Appendix A – Text of the Section 55 Order</b> .....	<b>74</b>

9 Appendix B – Glossary.....79

# 1 Executive Summary

- 1.1.1 ORR issued a Final Order<sup>1</sup> to Network Rail, on 22 April 2008, requiring that Network Rail present, by 30 June 2008, a plan to improve its planning and execution of projects involving the renewal, replacement, improvement and enhancement of the network. The plan was required to address issues in supplier management, risk management, site management and communications following possession overruns at Liverpool Street, Rugby and Shields Junction in January 2008. The Final Order required that Network Rail implement its plan by 31 December 2008. On 31 July 2008 ORR wrote to Network Rail stating that the Plan was compliant with the relevant requirements.<sup>2</sup> The Independent Reporter was appointed to monitor Network Rail's progress in implementing its Plan on 13 August 2008.
- 1.1.2 This report presents the Independent Reporter's final opinion on whether or not Network Rail has sufficiently implemented its Plan for Improving Project Delivery (the Plan) by 31 December 2008 in accordance with the Final Order. This report is supported by two interim reports which considered Network Rail's progress in implementing its Plan and the adequacy of the proposals presented.
- 1.1.3 In executing its Plan Network Rail has devised and implemented an end-to-end solution which presents a robust framework of processes and tools which provide the basis for reducing late cancellations and the number of possessions that overrun causing consequential disruption. The mandatory use of the draft Work Instruction "Delivering Work Within Possessions" from 1 January 2009 and the initial briefing and training of Network Rail staff and suppliers may be considered a significant effort in change management. The Work Instruction will be formally approved by September 2009.
- 1.1.4 In arriving at a final opinion the Independent Reporter has undertaken five project possession audits and conducted further audits with Infrastructure Maintenance, Project Management Office and Government & Corporate Affairs. The audits were undertaken against the requirements stated in Network Rail's Work Instruction. Throughout this process Network Rail has been committed and resourced to undertake the work necessary to introduce its improvement measures under the Plan. The audits demonstrated a positive intent amongst Network Rail staff to improve performance.
- 1.1.5 The Independent Reporter is satisfied with the progress made by Network Rail but has noted a number of specific observations and recommendations which should be considered in the embedment of the Work Instruction.
- 1.1.6 All of these observations are important. If they are not addressed Network Rail will fall into non-compliance with the Work Instruction in future. However, the Independent Reporter considers that none of the observations made detracts from the implementation of Network Rail's Plan at 31 December 2008. Network Rail should therefore remain ready to demonstrate to ORR that it has addressed these observations in its ongoing embedment activities.
- 1.1.7 Key observation and actions for embedment are:
- Ensuring the full engagement of the supply chain. Network Rail's project teams rely on contractor input to meet the requirements of the Work Instruction. Late input from the supply chain was evident through the audits which placed Network Rail project teams under pressure to comply. Supplier support may improve once the

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<sup>1</sup> See <http://www.rail-reg.gov.uk/upload/pdf/final-order-let-220408.pdf>

<sup>2</sup> See [http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering\\_work\\_orrlet\\_310708.pdf](http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering_work_orrlet_310708.pdf)

Work Instruction becomes a Network Rail Company Standard in September 2009, however action may be required before then to ensure compliance;

- Risk management is central to delivering successful possessions. An appropriate framework is now in place to facilitate a robust approach but this will only benefit possession delivery if it is supported by an appropriate culture and attitude to risk. The ongoing support and surveillance of project teams is imperative and Network Rail's ongoing embedment plan in this area should be strengthened;
- Through the development of the Work Instruction from the perspective of project possessions Network Rail has extended its work to improving the delivery of maintenance possessions. Positive progress has been made with this but this work must now be completed;
- Network Rail's work on the development of Key Performance Indicators has progressed. Continuous improvement by Network Rail should now be demonstrated through the analysis of possession overruns. Anglia has successfully completed similar work in maintenance which must now be replicated for projects.

1.1.8 In the Independent Reporter's opinion Network Rail has met the requirements of ORR's Section 55 Order, Issued 22 April 2008.

David Simmons

Independent Reporter  
Halcrow Group Limited  
14 April 2009

## 2 Introduction

### 2.1 Background

- 2.1.1 On 28 February 2008, ORR published a report<sup>3</sup> into the engineering overruns in January 2008 at Rugby, Liverpool Street and Shields Junction. The report found weaknesses in Network Rail's project delivery, concluding that:
- These weaknesses were unlikely to be confined solely to the cases covered by its investigation;
  - Better risk assessment and mitigation as part of the planning of possessions would address many of the identified weaknesses; and
  - Significant improvements could be made in arrangements with contractors and in site management – so that unexpected events could be dealt with and managed adequately as they arise – and in communication both within Network Rail and to train operators.
- 2.1.2 ORR identified a need for Network Rail to improve its project delivery, noting the complexity and significance of the work that Network Rail is mandated to undertake and the potential impact of possession overruns on train operators, passengers and freight customers.
- 2.1.3 ORR issued a Final Order<sup>4</sup> ('the Final Order' - attached at Appendix A) to Network Rail, on 22 April 2008, requiring that Network Rail present, by 30 June 2008, a plan to improve its planning and execution of projects involving the renewal, replacement, improvement and enhancement of the network.
- 2.1.4 Network Rail presented its plan ('the Plan'<sup>5</sup>) to ORR on 27 June 2008 with the intention of satisfying the requirements of the Order but more generally issues identified from:
- ORR's investigation into Network Rail management of engineering projects;
  - Network Rail's internal investigations into the January 2008 engineering overruns;
  - The incident at Shenfield following the Easter 2008 bank holiday.
- 2.1.5 On 31 July 2008 ORR wrote to Network Rail stating that the Plan was compliant with the relevant requirements of the final Order.<sup>6</sup> However, ORR stressed the requirement of the final Order that Network Rail fully implements the Plan by 31 December 2008.
- 2.1.6 Network Rail was required by the final Order to submit a report to ORR by 31 December 2008 demonstrating that it has implemented the Plan.

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<sup>3</sup> Report of ORR's investigation into engineering overruns, Office of Rail Regulation, February 2008.

<sup>4</sup> See <http://www.rail-reg.gov.uk/upload/pdf/final-order-let-220408.pdf>

<sup>5</sup> Network Rail's Plan for Reviewing Project Delivery, 27 June 2008.

<sup>6</sup> See [http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering\\_work\\_orrlet\\_310708.pdf](http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering_work_orrlet_310708.pdf)



## 2.2 Independent Reporter Remit and Methodology

### The Role of the Independent Reporter

- 2.2.1 The Independent Reporter is appointed by Network Rail under instruction from ORR to provide ORR with independent advice and assurance concerning Network Rail's delivery. This is required to enable ORR to discharge its functions under or in consequence of the Railways Act 1993.
- 2.2.2 In addition to providing assurance to ORR the Independent Reporter also seeks to identify good practice to promote efficient delivery.

### Review Timescales

- 2.2.3 ORR and Network Rail consider that termination of the Final Order should proceed in two phases, as follows:

#### *Phase 1*

- 2.2.4 The first phase began with the commencement of the ORR investigation and lasted until Network Rail's submission of its report to ORR (by 31 December 2008). The Independent Reporter was appointed to monitor Network Rail's progress in implementing its Plan on 13 August 2008.
- 2.2.5 Following appointment, the Independent Reporter attended routine monthly update meetings between Network Rail and ORR. The Independent Reporter assessed Network Rail's progress in implementing its plans which may necessitate, through separate meetings, detailed reviews of the progress of the various workstreams.

#### *Phase 2*

- 2.2.6 The second phase commenced when Network Rail submitted its report to ORR (by 31 December 2008 at the latest). Subsequently, the Independent Reporter was required to review and advise ORR, through audit, whether Network Rail has satisfied the requirements of the final Order and made a recommendation to ORR. Phase 2 will be complete by mid April 2009.

### Independent Reporter Deliverables

- 2.2.7 The Independent Reporter was set a series of deliverables under Phases 1 and 2. These are stated below and have been agreed and instructed jointly by Network Rail and ORR.

#### *Deliverable 1*

- 2.2.8 By 31 October 2008 to produce a First Interim Report<sup>7</sup> (Deliverable 1) setting out:
- The Independent Reporter's view as to whether Network Rail is on-track to complete implementation of its plan by 31 December 2008 with reasons.

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<sup>7</sup> Office of Rail Regulation Independent Reporter's Assessment of Network Rail's Compliance with ORR's Section 55 Order, issued 22 April 2008, Independent Reporter, Interim Report, 31 October 2008.

### *Deliverable 2*

- 2.2.9 By 16 January 2009 to produce a Second Interim Report<sup>8</sup> (Deliverable 2) to give:
- The Independent Reporter's initial view of Network Rail's 31 December 2008 submission;
  - The Independent Reporter's audit plan for phase 2.

### *Deliverable 3*

- 2.2.10 The Independent Reporter is to deliver a draft final report by 30 March 2009<sup>9</sup>. This should give the results of the audit and Reporter's view as to whether there is sufficient evidence to show that Network Rail's plan has been implemented. The report should also cover any areas of the plans which have yet to be implemented and Reporter's view as to whether it is reasonable that such work is outstanding. The report should also provide a view as to the level of improvements made and whether there is any outstanding 'bedding in' of enhanced processes. It should recommend whether the actions that Network Rail has taken lead the company to being compliant with the Order.

### *Deliverable 4*

- 2.2.11 The draft report produced under Deliverable 3 to be finalised by 14 April 2009.

## **Methodology**

- 2.2.12 The Independent Reporter has established a review team with the relevant level of experience and expertise in the four key areas of risk management, site management, supplier management and communications.

### *Phase 1*

- 2.2.13 During Phase 1 the Independent Reporter has adopted a 'constructive challenge' approach during its engagement with Network Rail. This consists of:
- Understanding the issues identified in the Plan;
  - Establishing Network Rail's baseline starting position;
  - Understanding Network Rail's proposals and progress;
  - Reviewing emerging evidence presented by Network Rail and questioning it on the adequacy of its improvement measures and their timely implementation.
- 2.2.14 'Constructive challenge' does not involve the Independent Reporter advising Network Rail on what to do; it is incumbent on Network Rail to define and implement the improvement measures under the Plan to terminate the Final Order. The Independent Reporter has used the evidence presented by Network Rail, its understanding of the industry and its professional judgement in substantiating the opinion provided.

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<sup>8</sup> Office of Rail Regulation Independent Reporter's Assessment of Network Rail's Compliance with ORR's Section 55 Order, issued 22 April 2008, Independent Reporter, Second Interim Report, 16 January 2009.

<sup>9</sup> The Independent Reporter was originally due to provide Deliverable 3 on 16 March 2009. In the second interim report (Deliverable 2) the Independent Reporter recommended Deliverable 3 be extended to 30 March 2009 to allow the audit period to capture Network Rail's actions in accordance with the Work Instruction for possessions at or around Easter 2009. Network Rail and ORR agreed this recommendation.

- 2.2.15 During Phase 1 the Independent Reporter engaged with Network Rail in the following ways:
- The Monthly Action Plan Review Meeting (MAPR) – The Independent Reporter was invited to Network Rail's monthly internal progress review meeting as an observer;
  - Workstream review meetings – The Independent Reporter's review team has met with Network Rail's workstream review leaders to understand the detail of the improvement proposals in greater detail;
  - Site visit – The Independent Reporter's review team has conducted one site visit during Phase 1 to observe a trial of Network Rail's new site progress monitoring process.
- 2.2.16 Following the 31 October 2008 Interim Report the independent Reporter has had continued contact with Network Rail in the following ways:
- Further MAPR meetings;
  - Town Hall Meetings – The Independent Reporter review team observed Network Rail briefings to its staff, supply chain and other stakeholders;
  - 'Round Table' briefings – The Independent Reporter review team observed Network Rail more detailed briefings to its staff.
- 2.2.17 None of the engagement undertaken during Phase 1 constituted audit. Although some of Network Rail's improvement measures may have been considered to be at an advanced stage of implementation, the Independent Reporter was not required to come to any view as to whether or not the improvement measures were fully implemented across Network Rail's business at that stage.
- 2.2.18 The Independent Reporter's view as to whether Network Rail was making sufficient progress in implementing its Plan was presented in his report of 31 October 2008.<sup>10</sup>

### *Phase 2*

- 2.2.19 Following the Network Rail report entitled "Network Rail's Plan for Improving Project Delivery, 23 December 2008 ("the December 2008 Report") the Independent Reporter undertook a desk-based review of the available evidence and provided an initial opinion on the extent to which Network Rail had implemented its Plan by 31 December 2008.
- 2.2.20 In order to substantiate his initial view of whether Network Rail implemented its Plan by 31 December 2008 the Independent Reporter considered:
- The December 2008 Report;
  - The latest draft of the Network Rail Work Instruction entitled "Delivering Work Within Possessions, Draft 9c, 5 December 2008" ("WI 9c (draft)");
  - Other supporting documentation requested from Network Rail following the publication of the Network Rail December 2008 Report.
- 2.2.21 The Independent Reporter's initial view was presented in his report of 16 January 2009.<sup>11</sup>

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<sup>10</sup> Office of Rail Regulation Independent Reporter's Assessment of Network Rail's Compliance with ORR's Section 55 Order, Issued 22 April 2008, Independent Reporter, First Interim Report, 31 January 2009, Halcrow Group Ltd.

<sup>11</sup> Office of Rail Regulation, Independent Reporter's Assessment of Network Rail's Compliance with ORR's Section 55 Order, Issued 22 April 2008, Independent Reporter, Second Interim Report, 16 January 2009, Halcrow Group Ltd.

- 2.2.22 The audit methodology undertaken during Phase 2 is described in the detailed audit report that supports this final report.<sup>12</sup>

### Maintenance of dialogue

- 2.2.23 ORR's letter of 31 July 2008<sup>13</sup> stressed the need for Network Rail to maintain regular dialogue between Network Rail, ORR and the Independent Reporter until 31 December 2008 to monitor progress. In the Independent Reporter's opinion Network Rail has met its commitment to adopt open and regular dialogue with the Independent Reporter. This is evidenced by:
- Network Rail's improvement workstreams being demonstrably led by senior Network Rail executives;
  - Evidence requests from the Independent Reporter being met as far Network Rail have been able to collate evidence;
  - Network Rail providing all reasonable access to meet its staff.

### Evidence

- 2.2.24 During Phase 1 the Independent Reporter has been presented with a range of evidence to demonstrate Network Rail's progress in implementing the Plan. This evidence has been received at the Independent Reporter's meetings with Network Rail and through a 'snapshot' of Network Rail's central evidence register.
- 2.2.25 During Phase 2 the Independent Reporter has sought evidence through its audit activities.

## 2.3 Final Report Objectives and Structure

### Objectives

- 2.3.1 This final report is presented to satisfy Deliverable 4 and therefore:
- presents the results of the audit and Reporter's view as to whether there is sufficient evidence to show that Network Rail's plan has been implemented;
  - identifies any areas of Network Rail's Plan which have yet to be implemented and Independent Reporter's view as to whether it is reasonable that such work is outstanding;
  - provides a view as to the level of improvements made and whether there is any outstanding 'bedding in' of enhanced processes;
  - whether the actions that Network Rail has taken lead the company to being compliant with the Order.
- 2.3.2 In order to substantiate a final opinion of whether Network Rail implemented its Plan by 31 December 2008 the Independent Reporter has considered:
- The December 2008 Report;
  - The latest draft of the Network Rail Work Instruction entitled "Delivering Work Within Possessions, Draft 9c, 5 December 2008" ("WI9c (draft)");

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<sup>12</sup> Office of Rail Regulation Independent Reporter's Assessment of Network Rail's Compliance with ORR's Section 55 Order, Issued 22 April 2008 Independent Reporter, Audit Report, 14 April 2009.

<sup>13</sup> See [http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering\\_work\\_orrlet\\_310708.pdf](http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering_work_orrlet_310708.pdf)

- The revised Network Rail Work Instruction entitled “Delivering Work Within Possessions, Version 1, 13 February 2009” (“Wlv1”);
- Audit evidence.<sup>14</sup>

## Report Structure

2.3.3 Following this section, this interim report is structured as follows:

### *Section 3 – The Requirements of the Order and Network Rail's Plan*

2.3.4 In Section 3 the Independent Reporter presents a summary of:

- the key concerns raised by ORR's January 2008 investigation report;
- Network Rail's baseline position before implementation of its Plan; and
- the principle objectives of the Network Rail Plan.

2.3.5 The Independent Reporter has concluded through Deliverables 1 and 2 that the Network Rail Plan would, if implemented, be sufficient to comply with the requirements of the Final Order.<sup>15</sup>

### *Section 4 – Network Rail's Compliance with its Plan*

2.3.6 In Section 4 the Independent Reporter discusses the results of the audits undertaken. Individual audit reports are presented in the detailed audit report that supports this final report.<sup>16</sup>

### *Section 5 – Network Rail Progress and Embedment Activities*

2.3.7 Section 5 identifies areas of further embedment activity that reasonably sit beyond the requirements of the Final Order.

### *Section 6 – Compliance with the Order*

2.3.8 Section 6 states the Independent Reporter's opinion concerning Network Rail's compliance with the Order.

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<sup>14</sup> See Reference 12.

<sup>15</sup> See references 5 and 6.

<sup>16</sup> See Reference 12.

## 3 Requirements of the Final Order and Network Rail's Plan

### 3.1 Introduction

3.1.1 In this section the Independent Reporter presents a summary of:

- The key concerns raised by ORR's January 2008 investigation report;
- Network Rail's baseline position before implementation of its Plan; and
- The principle objectives of the Network Rail Plan.

3.1.2 The Independent Reporter has concluded through Deliverables 1 and 2 that the Network Rail Plan would be compliant with the Final Order if the Phase 2 audits found it to be compliant with its Work Instruction "Delivering Work Within Possessions".<sup>17</sup>

### 3.2 Requirements of the Final Order

3.2.1 The ORR's Final Order is provided in full at Appendix A. The Final Order requires that:

1. *In respect of the contravention, pursuant to section 55 of the Act, ORR requires network Rail to:*
  - (a) *Produce and deliver a plan to ORR by 30 June 2008, on which it has consulted its customers, relevant funders, passenger Focus and London Travel Watch which:*
    - (i) *demonstrates how Network Rail will implement measures to the greatest extent reasonably practicable, including procedures and training, to ensure that its planning and execution of projects for the renewal, replacement, improvement, enhancement and development of the network which require possessions will be undertaken in an efficient and economic manner and in accordance with best practice (the measures);*  
*and*
    - (ii) *sets out clear milestones showing how Network Rail will implement the Measures; and*
    - (iii) *demonstrates that particular attention has been paid in the Measures to addressing weaknesses in Network Rail's risk management, supplier management, site management and communications with train operators and rail users;*
  - (b) *by 31 December 2008, have implemented the plan and have delivered a report to ORR which demonstrates why it is satisfied that the plan has been implemented.*
2. *This Plan constitutes a final order under the Act.*

3.2.2 On 31 July 2008 ORR wrote to Network Rail stating that the Plan was compliant with the relevant requirements of the final Order.<sup>18</sup> However, ORR stressed the requirement of the final Order that Network Rail fully implements the Plan by 31 December 2008. ORR also stressed that:

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<sup>17</sup> See references 5 and 6.

<sup>18</sup> See [http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering\\_work\\_orrlet\\_310708.pdf](http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering_work_orrlet_310708.pdf)

- A key part of implementing the Plan is Network Rail's commitment to develop and report against relevant KPIs including measures of train cancellations and delays due to engineering overruns;
- Although ORR accepts that certain changes Network Rail may wish to make will not be achievable by 31 December 2008, particularly where these have to be progressed through wider industry processes, changes within Network Rail's control must be implemented by 31 December 2008 in order to terminate the licence breach;
- The adequacy of the improvement measures under the Plan is critical;
- Regular dialogue will be maintained between Network Rail, ORR and the Independent Reporter until 31 December 2008 to monitor progress. This will include a report by the Independent Reporter at the end of October 2008 providing his opinion on whether or not Network Rail is likely to implement the Plan successfully.

### 3.3 Network Rail's Approach and Progress

- 3.3.1 Network Rail's Plan of June 2008 sought to implement 33 separate improvement workstreams under the four key areas of:
- Risk management;
  - Site management
  - Supplier management; and
  - Communications.
- 3.3.2 Network Rail's December 2008 Report provides details of the process that it has followed to implement the improvements in the four key areas and its argument that the Plan has been implemented.
- 3.3.3 On 31 July 2008 ORR wrote to Network Rail stating that the Plan was compliant with the relevant requirements of the final Order.<sup>19</sup> The Independent Reporter's First Interim Report<sup>20</sup> of 31 October 2008 concluded that Network Rail's Plan had not changed materially during its initial development and implementation. The Independent Reporter has therefore used the Network Rail Plan as the standard by which Network Rail should be measured.
- 3.3.4 In its December 2008 Report Network Rail argued that its improvement measures have culminated in a number of new processes, tools, training and support which are brought together into a single entitled "Delivering Work Within Possessions, Draft 9c, 5 December 2008" ("WI9c (draft)") which was mandatory on all projects from 1 January 2009. WI9c(draft) has since been superseded the revised Network Rail Work Instruction entitled "Delivering Work Within Possessions, Version 1, 13 February 2009" ("Wlv1").
- 3.3.5 Below, the Independent Reporter considers each of the four key areas for improvement identified under the Final Order and presents a summary of:
- The key concerns raised by ORR's January 2008 investigation report;
  - Network Rail's baseline position before implementation of its Plan; and
  - The principle objectives of the Network Rail Plan.

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<sup>19</sup> See [http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering\\_work\\_orrlet\\_310708.pdf](http://www.rail-reg.gov.uk/upload/pdf/nrail-engineering_work_orrlet_310708.pdf)

<sup>20</sup> Independent Reporter's Assessment of Network Rail's Compliance with ORR's Section 55 Order, Issued 22 April 2008, Independent Reporter, Interim Report, 31 October 2008, Halcrow group Ltd.

## 3.4 Supplier Management

### Baseline Position

- 3.4.1 Network Rail's Plan states that its approach to Supplier Management at the time of the January 2008 possession overruns was characterised by:
- Supply requirements determined by individual projects and programmes, each of which implements inspection and delivery checks according to a number of processes.
  - Identification of critical resources based on experience and knowledge of individual projects and programmes rather than a comprehensive review of resources required;
  - Co-ordinators within Programme Controls teams who have established procedures for key resources and plant where detailed allocation of supply and demand is undertaken;
  - Limited projection in the allocation of critical resources on the basis of future supply and demand.
- 3.4.2 In its report on the January 2008 engineering overruns ORR concluded that:
- Despite the criticism levelled at contractors at both Rugby and Liverpool Street, it is Network Rail's responsibility to manage its suppliers and contractors so as to achieve an acceptable level of risk;
  - Network Rail's response to the Christmas (2007) problems has been to plan to internalise some of the critical resources, notably for OLE work;
  - Network Rail does not seem to have optimised the balance between risk and reward with its suppliers.
- 3.4.3 In accordance with the requirements of ORR's final order, Network Rail consulted with industry; the results of which drew a number of observations in terms of project and risk management and identified the need to:
- Fluctuations in manpower resource demand mean it is difficult for contractors to attract, train and retain staff. This in turn creates a reliance on agency staff to deliver works during major possessions;
  - Network Rail should complete its review of resource availability before publication of its possession strategy to assist in identifying resource constraints and reducing plan risk;
  - Network Rail should work to reduce unnecessary duplication of site resources;
  - It was unclear how Network Rail would address poor contractor performance.

### Network Rail Plan

- 3.4.4 Network Rail's Plan deliverables<sup>21</sup> are stated as bullet-points below:
- *Improved logistics planning and monitoring of materials to site and improved security of delivery on site – this will address duplication and unnecessary site resources, an issue referred to in a number of consultation responses that were received in respect of this plan;*

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<sup>21</sup> Network Rail's Plan for Reviewing Project Delivery, June 2008, pp.17-18.



- *Better allocation methods for resources made scarce through high demand/low supply; specifically on safety/time critical resource such as OLE linesmen and signalling testers;*
- *Prediction and monitoring of resource levels across assets which allow active management of programmes to manage out resource peaks; we will specifically identify this prior to publication of possession strategy as requested in consultation;*
- *Prediction of skills requirements, allowing supply base to be established or reinforced;*
- *A national competency profile for OLE;*
- *Use of resource profiles and resource allocation as a routine part of readiness reviews - understanding key resources is part of these reviews;*
- *Introduction of category management so that the supply market is approached with a single view on types of goods and services for the purposes of enabling appropriate strategic management of the supply chain; this includes assessment of new suppliers as appropriate. First Group commented in its response to our consultation on this plan that in some areas the capability of existing suppliers is limited and that new suppliers need to be introduced. We acknowledge this comment;*
- *Introduction of a contracting strategy model that allows Network Rail's procurement team to identify the project outcomes and market constraints in order to determine the appropriate level of risk and reward and type of supplier engagement.*

### **Adequacy of the Network Rail Plan**

3.4.5 In Deliverable 2 the Independent Reporter considered the provisions of the following sections W19c(draft) in respect of Supplier Management:

- s.6.2 - Preparing a Contract Strategy (Gateway 2A, 2B);
- s.6.3 - Invitation to Tender & Evaluation of Tenders Submitted;
- s.6.4 - Recommendation for Contract Award
- s.6.5 - Defining and Expediting Critical and Scarce Resource

3.4.6 With the exception of the application of W1v1 to third party projects, in the Independent Reporter's opinion W1v1 has not changed substantively from W19c(draft) and, if implemented by Network Rail, will fulfil the requirements of the Plan and the Final Order. Third party projects are discussed below.

## **3.5 Risk Management**

### **Baseline Position**

3.5.1 In its report on the January 2008 engineering overruns ORR concluded that:

- Although the WCRM programme has good quality programme and project management procedures - and these were followed in practice at Rugby - different judgements might have been made which could have led to better outcomes;
- Planning for Liverpool Street was less satisfactory where better and timely risk management might have permitted identification and mitigation of risks related to late changes in design and additional work;
- Risk management practices for Shields Junction were flawed, omitting to consider risks associated with the signalling element of the work;

- A wide variation in the quality of risk management exists in Network Rail's engineering programmes both in different geographical locations and related to different types of project.
- 3.5.2 In accordance with the requirements of the Final Order, Network Rail consulted with industry; the results of which drew a number of observations in terms of project and risk management and identified the need to:
- develop realistic operational contingency plans;
  - manage the risk associated with impact on customers of engineering overruns;
  - reduce the impact on operations when possession are cancelled at short notice;
  - develop a standard protocol to minimise the use of rail replacement bus services;
  - review contractor involvement in the project planning lifecycle and address the lack of time to complete design and mitigate identified worksite risk;
  - simulate the envisaged improvements (under the Plan) to identify how the possessions at Rugby, Liverpool Street and Shenfield would have progressed;
  - generally, reduce the impact of possessions on both passenger and freight operations;
  - Involve customers earlier in contingency planning.

### Network Rail Plan

- 3.5.3 Network Rail's Plan deliverables<sup>22</sup> are stated as bullet-points below:
- *All major projects requiring possessions on the operational railway will have a risk management plan as part of the planning process. This will include a specific possession risk register covering operational risks;*
  - *All major projects requiring possessions will undertake readiness reviews in a timely manner so that the risk management plan is checked and is robust prior to the start of any possession. As emphasised by various respondents to our consultation on this plan, the review will make particular reference to: resources, materials, sequencing of preparation and follow-up work, any speed restrictions necessary for informing operational impact, and the capability and availability of diversionary routes;*
  - *Pre-contract assessments will include an emphasis on quality and reliability of programme for resource and materials as part of bid and award;*
  - *The risk management plan will contain contingency plans which deal with the impact of overrun and will, where appropriate, be agreed with customers prior to delivery;*
  - *Communication protocols (the method of communicating during work) will be clearly defined with names and contact details in place as part of the risk management plan; [this is addressed under the Site Management Workstream]*
  - *Milestone reporting will be used from the work site through the communication protocols. The milestone reporting will define who makes the key decisions which affect time of handback and quality of completion of work within the possessions; [this is addressed under the Site Management Workstream]*
  - *Techniques for assessing the impact of an overrun on customers will be established in conjunction with customers in order to allow us to prioritise risk and resources more effectively. These will include structured workshops through which*

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<sup>22</sup> Network Rail's Plan for Reviewing Project Delivery, June 2008, pp.12-13.

*both passenger and freight operators can represent wider customer requirements and concerns;*

- *Techniques for the determination of the likelihood and duration of a delay, in particular, QSRAs, will be refreshed with reference to best practice across the railway industry and other sectors. We will take steps with a view to providing that the techniques we use are compatible with best practice and are consistently applied.*

## **Adequacy of the Network Rail Plan**

3.5.4 In Deliverable 2 the Independent Reporter considered the provisions of the following sections WI9c(draft) in respect of Supplier Management:

- s.6.6 - Assessing Worksite Complexity;
- s.6.7 - Creating an Integrated Work Plan;
- s.6.8 - Contingency Planning;
- s.6.9 - Risk Readiness Reviews and Risk Deliverability Reviews;
- s.6.10 - Quantitative Schedule Risk Assessment;
- s.6.11 - Portfolio Deliverability Reviews.

3.5.5 In the Independent Reporter's opinion Wlv1 has not changed substantively from WI9c(draft) and, if implemented by Network Rail, will fulfil the requirements of the Plan and the Final Order.

## **3.6 Site Management**

### **Baseline Position**

3.6.1 Network Rail's Plan states that its approach to Site Management at the time of the January 2008 possession overruns was characterised by:

- a number of processes and practices under which individual projects assign management arrangements in conjunction with the contractors delivering the work;
- Running sites on the basis of construction and delivery targets;
- Varying degrees of co-ordination;
- Integration of information for complex possessions through a Control Centre, however there is no consistent national guidance or trigger for the ownership or establishment of such a Control Centre;
- Retrospective progress reporting from site which is not timely or informed in considering the impact on handback;
- Inconsistent communication protocols from site;
- An Infrastructure Support Centre (which acts as a focus for communication and reporting from worksites) which does not have 100% coverage of sites or events;

3.6.2 In its report on the January 2008 engineering overruns ORR concluded that:

- There were serious shortcomings in Network Rail's management of the works at Rugby and Liverpool Street once the possession began;
- Not all projects are equally challenging or critical;
- It would have expected Network Rail to give maximum priority to ensuring the Rugby works were successfully completed given the complexity of the project and its importance to the operation of the December 2008 timetable;

- Network Rail managers were unaware of the extent of the problems on site at Rugby. This was, in part, due to reliance on self-certification by contractors and resulted in failure to manage problems effectively and communicate reliable information to train operators and rail users;
- The works at Liverpool Street were thought to be less complex, but timely completion was essential given the location. Again there was a failure to understand the nature and extent of problems until it was too late.

3.6.3 Network Rail's consultation drew a number of observations and identified the need to:

- Improve reporting lines from site so as to allow passenger and freight operators in turn to provide accurate information to their customers;
- Ensure the accuracy of information coming from sites;
- Ensure that experienced Network Rail project managers are engaged on site in integrated teams to enable quicker problem identification and rectification;
- Compare Network Rail worksites with others (for example, London Underground);
- Avoid late cancellation of possessions without prior customer consultation or reason.

### Network Rail Plan

3.6.4 Network Rail's Plan deliverables<sup>23</sup> are stated as bullet-points below:

- *Improvements in the monitoring of the progress on site through the better use of milestones;*
- *We will review our process for reporting work site progress on high risk possession activities so that communication to our customers will be improved during possessions and in the event of an engineering overrun;*
- *We will develop a revised timeline of possession communication between the Infrastructure Support Centre, Operational Control and our customers;*
- *Improved definition of reporting lines between site, ISC, project teams and senior management during management of high risk possession activities, with clearer lines of communication to customers, both freight and passenger operators, affected by the work;*
- *Improvement in the amount of measurement of physical progress and improvement in processes for recording work not completed during different stages of work on site;*
- *The development of a more consistent approach to measurement of work on site;*
- *Better use of experienced Network Rail site managers to manage and control activities at high risk work sites;*
- *Use of competency assessments for site management and closer alignment of management expertise/training with site complexity and risk;*
- *Site progress reports submitted at pre-agreed times depending on type and complexity;*
- *Validation of contractors' progress reports to support right time handback;*
- *Introduction of agreed contingency plans in a timely manner.*

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<sup>23</sup> Network Rail's Plan for Reviewing Project Delivery, June 2008, pp.17-18.

## Adequacy of the Network Rail Plan

- 3.6.5 In Deliverable 2 the Independent Reporter considered the provisions of the following sections WI9c(draft) in respect of Supplier Management:
- s.6.12 - Assignment of Construction Management Resource;
  - s.6.13 - Selecting and Configuring Site Progress Reporting Tools;
  - s.6.14 - Communicating Progress Information from Site.
- 3.6.6 In the Independent Reporter's opinion Wlv1 has not changed substantively from WI9c(draft) and, if implemented by Network Rail, will fulfil the requirements of the Plan and the Final Order.

## 3.7 Communications

### Baseline Position

- 3.7.1 At the time of the January 2008 possession overruns it was already standard practice for Network Rail to communicate with passengers and stakeholders prior to major engineering work. Press releases and notification of line side neighbours were the main focus with website information limited and little direct communication to passengers.
- 3.7.2 In its report on the January 2008 engineering overruns ORR concluded that:
- Largely as a result of Network Rail not having the right processes in position for monitoring the true progress of the projects that overran in January 2008, it failed to provide operators and rail users with reliable information about the likelihood and extent of disruption;
  - Some operators reported to ORR that they learnt of problems through unofficial channels before being formally advised;
  - There may be undue reluctance by some Network Rail staff to send unwelcome messages clearly and promptly up through the organisation;
  - There may be too much reluctance by Network Rail to alert operators to emerging risks while they are still striving to contain them;
  - The 'Gold Command' arrangements introduced at Rugby and Liverpool Street appeared to be effective in recovering train services and to communicate with operators and customers.
- 3.7.3 Network Rail's consultation drew a number of specific comments which identified that:
- Some communication from Network Rail to passengers ahead of and during disruptive possessions has not been helpful to operators;
  - Current communications activities are focussed on getting information to the travelling public but fail to recognise the needs of freight operators and their customers;
  - Volume and supply of information to passengers should be carefully monitored to reduce the possibility of confusion; this includes ensuring that messages are not conflicting.
  - Network Rail and the train operating companies should work more closely together to improve the provision of operational information to passengers when disruption occurs, both planned and unplanned;
  - The rail industry should provide consistent information as far in advance as possible of planned disruption.

## Network Rail Plan

3.7.4 Network Rail's Plan deliverables<sup>24</sup> are stated as bullet-points below:

- *Better communication with a range of external audiences before, during and after major engineering work, including the provision of accurate information explaining the reason for, and benefit of, our work;*
- *Support improving the flow of information between Network Rail and train/ freight operating companies;*
- *Transferring the benefits of gold command approach into a Command and Control structure for the management of projects in high risk possessions, using information identified;*
- *On high risk sites, better processes to facilitate clear communication and flow of information to the ISC on situations as they emerge;*
- *Better process, so that decisions to implement contingency plans are communicated through the ISC to train operators in a timely manner (part of the Command and Control Structure)..*

## Adequacy of the Network Rail Plan

3.7.5 In Deliverable 2 the Independent Reporter considered Network Rail's research and improvement measures to address the communications process running parallel to and interwoven with the entire infrastructure project production process, from possession planning and development through to implementation and completion. In this regard it runs both runs separately to the possession planning and delivery process under Wlv1 and connects with it at key stages.

3.7.6 The Independent Reporter noted the development of Network Rail's Best Practice Guide – External Communications, Major Improvement Work (Bank Holidays), developed by Network Rail's Government and Corporate Affairs (G&CA) team in response to the requirement to improve communications following the January 2008 possession overruns. If implemented by Network Rail, the Independent Reporter considers that this will fulfil the requirements of the Plan and the Final Order.

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<sup>24</sup> Network Rail's Plan for Reviewing Project Delivery, June 2008, pp.20-21.

## 4 Network Rail's Compliance with its Plan

### 4.1 Introduction

- 4.1.1 The Independent Reporter has considered whether or not Network Rail has, to the greatest extent reasonably practicable, implemented its Plan through audits of its compliance with the requirements and intent of the Work Instruction version 1 (Wlv1). In this section the Independent Reporter discusses the findings of the audit undertaken on Network Rail. Full details of the audit basis, process and results are stated in the detailed audit report.<sup>25</sup>
- 4.1.2 Following discussion with Network Rail and ORR it was agreed that the Independent Reporter would undertake audits on Red or Amber ranked possessions that cover the following asset and delivery areas:
- Signalling focussed possession;
  - OLE focussed possession;
  - Major Project or Programme possession;
  - Track replacement possession;
  - Maintenance possession (if a Red or Amber maintenance possession is identified in the audit period);
  - Third / Outside parties possession.
- 4.1.3 Due to the requirements of Wlv1 it was also necessary for the Independent Reporter to audit Network Rail's Project Management Office and Government & Corporate Affairs teams.
- 4.1.4 Network Rail provided a complete list of Red and Amber projects against the above criteria that would be executed in the timescale available for the audits. The available audit timescale was between mid February and mid March 2009.
- 4.1.5 On the basis of the criteria and possessions list provided the Independent Reporter identified the following possessions for audit:

Possession	Type	Description	Timing
Owen Street Relief Road, Tipton Installation of New Underbridge No.52A ("Tipton")	Third party	A third party enhancement developed and delivered by Sandwell Metropolitan Borough Council with Network Rail ASPRO activities. The scheme comprises the construction of a new under bridge (no. 52a) at Tipton to permit the closure of the only remaining level crossing on the West Coast Main Line between Euston and Wolverhampton.	26/02/09
Wimbledon S&C	Track	Switches and Crossings (S&C) renewal at Wimbledon	02/03/09
Cambrian Commissioning	Signalling	Preparations for the Easter 2009 works to Caersws levelling crossing and the wider preparations for commissioning possessions in late 2009. The latter	04/03/09

<sup>25</sup> See reference 12.

Possession	Type	Description	Timing
(ERTMS)		relates to the switching of control for the route from Shrewsbury to Pwllheli and Aberystwyth over to the European Traffic Management System centred at Machynlleth	
Blackfriars Commissioning Pt 2	Major Project / Programme	Slewing track over Blackfriars Bridge and the commissioning of Signalling and Telecoms (S&T) works associated with the track slews	06/03/09
Great Eastern OLE Renewal	OLE	Renewal of Overhead Line Equipment (OLE) system on Great Eastern in Stratford area	16/03/09
Infrastructure Maintenance	Maintenance	Overview of maintenance delivery improvement on Anglia route and proposed implementation across the rest of Infrastructure Maintenance	18/03/09
Programme Management Office	HQ	Overview of PMO processes and compliance with Section 6.11 of the Work Instruction	18/03/09
Government & Corporate Affairs	HQ and Regions	Public and media communications	26/02/09 and 12/03/09
Tipton	Third party	Site-based audit of section 6.14 of the Work Instruction	10/04/09

## 4.2 Audit Constraints

4.2.1 Due to the timing of the available audit period (mid February to mid March 2009) and the mandated use of the Work Instruction from 1 January 2009 it has been necessary for the Independent Reporter to concentrate on possessions at Easter 2009. This has permitted the greatest visibility of Network Rail's compliance with the Work Instruction on the basis that 1 January 2009 fell 14 weeks before Easter 2009 (weekend of Friday 10 to Monday 13 April 2009). "T-14" is significant in that many of the key mandated by Wlv1 for Red and Amber rated possessions are required from T-14 onward. The Easter 2009 possessions, coupled with the available audit period, therefore provided the Independent Reporter with the best opportunity for insight into Network Rail's compliance with the Work Instruction.

4.2.2 However, the available period did place some constraints on the audit which have been highlighted to ORR and Network rail. In particular:

- The Supplier Management aspects of the Work Instruction (sections 6.2 to 6.4 in particular) involve contract strategy and procurement activities. Due to the timing and gestation of procurement activities (which may occur anything from 6 months to a period of years prior to the actual possession) the Independent Reporter noted that limited evidence of strict compliance with the Work Instruction may be found. The Independent Reporter proposed that it would record Network Rail's actual actions under these areas and consider the extent to which the new supplier management requirements were understood. This approach was accepted by Network Rail and ORR;
- The Final Order specifically states that *the "planning and execution of projects for the renewal, replacement, enhancement and development of the network which require possessions"* [emphasis added]. Throughout the implementation of its Plan the Independent Reporter has observed Network Rail's recognition that maintenance works requiring possessions would necessitate compliance with the



Work Instruction to some extent. In Deliverable 2 the Independent Reporter noted that Network Rail was still making progress in developing its approach to assessing worksite complexity for maintenance (RAG assessment). Rather than auditing a maintenance worksite the Independent Reporter has therefore undertaken a review of Network Rail's progress integrating Infrastructure Maintenance into compliance with the Work Instruction;

- A key element of the Work Instruction requires project teams to implement project progress monitoring and communicate progress from site using mandated processes. The Independent Reporter noted that the available audit timescale would preclude these processes being observed. Following discussion with ORR and Network Rail it was agreed that the Independent Reporter would extend one of the five project possessions audited to include Network Rail's use of the site progress monitoring tool and reporting from site to Infrastructure Control Group (IGC). It was also agreed that the site audit would include a visit IGC to view reporting being received from all possessions;
- Finally, in undertaking the audit of public and media communications, the Independent Reporter has sought to view as much evidence material as possible up to the timing of this report. It is noted however that some evidence has not been available due to the planned production of some communications material immediately before the possessions.

### 4.3 Approach and Status of Observations

4.3.1 In this section the Independent Reporter discusses its audit observations stated in the detailed audit report.<sup>26</sup> The discussion is undertaken under the relevant sections of the Work Instruction for to:

- Provide a rounded view on the level of Network Rail's compliance;
- Identify any remaining issues with the content of intent of Wlv1.

4.3.2 In conducting the audit, the Independent Reporter has recorded observations below on the following basis:

- Critical Observations – are instances where the audit team consider the project has fallen considerably short of the standard required and that the possession(s) being planned may be at risk of disrupting services;
- Secondary Observations – are instances where the audit team consider the project has fallen short of the required standard but mitigating action should enable the possession(s) to be successfully executed;
- Good Practice Observations – are instances where the audit team considers value in recording instances of good practice.

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<sup>26</sup> See reference 12.

## 4.4 Supplier Management

### Introduction

- 4.4.1 As noted under section 4.3 above the timing of the Independent Reporter's audit timescale, the timing of the Work Instruction (mandated from 1 January 2009) coupled with the timing and gestation period for procurement events (6 months to several years for framework contracts) would probably preclude evidence that the possessions audited were fully compliant with s.6.2 to s.6.4 of Wlv1. Compliance would only be expected under the requirement of s.6.5 of Wlv1 (Defining and Expediting Scarce and Critical Resource).
- 4.4.2 For ss.6.2 to 6.4 of Wlv1 the Independent Reporter has therefore recorded Network Rail's actual approach under sections and considers the extent to which the new supplier management requirements were understood. This approach was accepted by Network Rail and ORR.

### Preparing a Contract Strategy (Gateway 2A, 2B) (Wlv1 s.6.2)

- 4.4.3 Wlv1 states that s.6.2 provides a standardised procedure for the selection of the appropriate Contract Strategy for the project, for which templates, guidelines and tools have been published on the Network Rail Infrastructure Investment Commercial and Procurement Intranet site.

### *Maintenance*

- 4.4.4 S.6.2 of Wlv1 is stated as not being applicable to Infrastructure Maintenance on the basis that maintenance resource has been brought in-house by Network Rail. As no external procurement is required it follows that no contract strategy is required.

### *Third Party Possessions*

- 4.4.5 S.6.2 of Wlv1 is also stated as not being applicable to Third Party projects. By definition Network Rail is not the party placing the contract with the contractor for the possession works. The Independent Reporter considers this logical but notes from the Tipton audit that the Network Rail project team were focussed on ensuring that its particular requirements and conditions for the planning and delivery of the possession works were achieved through the employer for the works Sandwell Metropolitan Borough Council (Sandwell MBC). The Independent Reporter is satisfied through evidence of the Works Agreement between Network Rail and Sandwell MBC and the Invitation to Tender (ITT) issued by Sandwell MBC that Network Rail's requirements were communicated. The Independent Reporter notes that the third party contractor was required to bear the full costs of any possession overrun.
- 4.4.6 Although Wlv1 does not require Network Rail to adopt a 'contract strategy' Network Rail clearly needs to adopt an overall strategy to protect the interests of the railway. As discussed further below the Tipton possession demonstrated that Wlv1 is certainly applicable to the planning and execution of third party possession works as it provides a means by which to require enhanced planning and assurance from the contractor. As Wlv1 will eventually become a Network Rail Standard it should, through standard Works Agreements and special conditions become a default requirement on third party contractors. Until Wlv1 becomes a company standard Network Rail should consider specifically mandating the use of Wlv1 in third Works Agreements. This would in turn enhance the requirement for contractor's schedules, contingency planning, resource planning and risk management.

Ref.	Good Practice Observation	Supplier Management
1	The Tipton project has demonstrated the value of Wlv1 to third party possessions.	
	IR Recommended Action	Responsible – Network Rail C&P
	Until Wlv1 becomes a Network Rail Company Standard (at which point Wlv1 should become a requirement through third party Works Agreements), expected September 2012, Network Rail should review third party possessions planned in the interim period and make Wlv1 a requirement through the appropriate contractual mechanism.	

### *General Compliance*

- 4.4.7 From the evidence provided by the four project audits (excluding Tipton) the Independent Reporter observes that:
- Great Eastern produced Gateway 2B contract strategy documentation in accordance with the requirements of Wlv1;
  - Thameslink produced Gateway 2B contract strategy documentation in the spirit of the requirements of Wlv1;
  - Both Wimbledon and Cambrian produced contract strategies but not in accordance with the Gateway 2B format. This was a result of the timing of the initiation of these works.
  - All possessions audited demonstrated a contractual strategy and strong appreciation of the requirements of the Gateway process.
- 4.4.8 Although the timing of the audits generally precluded full evidence of Gateway 2 documents the Independent Reporter is satisfied with the level of understanding and approach adopted by the possessions audited.

### *Financial Risk and Reward*

- 4.4.9 Network Rail has been developing the Gateway Process since 2007 and it would have been implemented independently of Wlv1. The importance of the Gateway Process to Wlv1 is that it provides the opportunity to influence the approach of the supply chain to planning and delivering possession works.
- 4.4.10 The audits demonstrated a range of financial damages included under the contracts for each possession. This ranges from no financial risk at all (Cambrian and Great Eastern) to full financial risk for possession overruns (Tipton). Blackfriars and Wimbledon took the approach of identifying risks that were best managed by Network Rail and its contractors and allocating financial risk accordingly.
- 4.4.11 Imposing financial risk on the supply chain for the late cancellation and overrunning of possessions is a decision that must be made in the context of the constraints faced in each asset area. The limitations and capabilities of the supply chain, new technologies and interfacing projects should all be considered to arrive at an appropriate decision that will incentivise the supply chain to the maximum benefit.

- 4.4.12 Wlv1 provides a management rather than a contractual approach to limiting the potential for Network Rail's supply chain to overrun possessions. However, Wlv1 is a Network Rail-facing document as it places few, if any, obligations directly on Network Rail's supply chain. As discussed further below, Network Rail's ability to comply with Wlv1 is very much dependent on the input of its suppliers. Primarily this input comes in the form of providing competent schedules to support QSRA's, engagement in QSRA's, preparation of contingency plans and providing evidence that competent resource has been booked to deliver the works.
- 4.4.13 Network Rail has advised the Independent Reporter that Wlv1 is unlikely to become a Network Rail Company Standard until September 2009. The discussion below suggests that Network rail has sought to engage the assistance of its supply chain in complying with Wlv1. However, the instances of late delivery of activities and evidence under Wlv1 would appear to emanate from the supply chain. This may simply be attributable to the timing of Wlv1 in relation to the audits undertaken but may also relate to the supply chain viewing Wlv1 as an extra contractual requirement.
- 4.4.14 For supply chain contracts tendered after Wlv1 becomes a Network Rail Company Standard there should be no issue in the supply chain complying with Network Rail's reasonable requirements to support compliance with Wlv1. Network Rail should consider and include the requirements on its supply chain arising from Wlv1 in all future contracts.
- 4.4.15 For contracts due for tender and award before Wlv1 becomes a Network Rail Company Standard the Independent Reporter would expect Network Rail to include the requirements on its supply chain arising from Wlv1 in these contracts
- 4.4.16 For all existing contracts Network Rail needs to consider the steps it will take to ensure that the supply chain provides the necessary level of support to enable Network Rail to comply with Wlv1. In all of the audits undertaken evidence existed to demonstrate that the supply chain had contributed although in most instances the support was provided later than anticipated.

Ref.	Secondary Observation	Supplier Management
2	Most audits demonstrated late input from Network Rail's supply chain in achieving Network Rail's obligations under Wlv1. This may have been due to the timing of the introduction of Wlv1 in view of the audit timescale. However, until Wlv1 becomes a Network Rail Company Standard in September 2009 the supply chain may not be under any contractual obligation to support Network Rail in complying with Wlv1. This may lead to instances of short-term no compliance or, as observed during the audits, late delivery of activities supporting Network Rail's compliance.	
	<b>IR Recommended Action</b>	<b>Responsible – Network Rail C&amp;P</b>
	Instruction of Wlv1 to the supply chain should be considered by Network Rail in order to enable compliance. The Independent Reporter acknowledges that this should not be an issue for contracts tendered and awarded after Wlv1 becomes a Network Rail Company Standard in September 2009.	

### Invitation to Tender & Evaluation of Tenders Submitted (Wlv1 s.6.3)

- 4.4.17 Wlv1 states that s.6.3 provides a standardised procedure for preparing Invitation to tender (ITT) documentation and evaluating tender using the Tender Evaluation Model (TEM) and guidelines published on the Infrastructure Investment Commercial and Procurement Intranet.

### *Maintenance*

- 4.4.18 S.6.3 of Wlv1 is stated as not being applicable to Infrastructure Maintenance on the basis that maintenance resource has been brought in-house by Network Rail. As no external procurement is required it follows that no contract strategy is required.

### *General Compliance*

- 4.4.19 From the evidence provided by the four project audits (excluding Tipton) the Independent Reporter observes that:
- The Tender Evaluation Model was not used due to the timing of the tender process in view of the timing of both the mandatory use of the TEM (1 November 2008) and the mandatory use of Wlv1 (1 January 2009);
  - Despite this the Independent Reporter observed a good understanding of the TEM amongst the Commercial and Procurement staff interviewed.
- 4.4.20 However, there was a more limited understanding of the principles underpinning the TEM from Network Rail's project management personnel. This was most evident in respect of Wimbledon however it is acknowledged that track renewals procurement is undertaken centrally and work-banks instructed annually. This observation is not critical but the Independent Reporter considers it important that Commercial and Procurement work with its project management colleagues in Infrastructure Investment to ensure that opportunities and constraints of using the TEM are understood. The requirements and criteria stated in the TEM will form the strict basis on which project teams will be able to evaluate and ultimately award contracts.
- 4.4.21 As noted under Observation 2 above, Network Rail should review Wlv1 for activities and evidence that it requires from its supply chain to support its compliance with Wlv1 and ensure, as appropriate, that these are included in TEM criteria. On the basis of the tender evaluation criteria evident from the audits the Independent Reporter has confidence that Network Rail should achieve this on a consistent basis in future.

### **Recommendation for Contract Award (Wlv1 s.6.4)**

- 4.4.22 Wlv1 states that s.6.4 provides a standardised procedure for obtaining approval to award a contract, using templates and guidelines published on the Infrastructure Investment Commercial and Procurement Intranet.

### *Maintenance*

- 4.4.23 S.6.4 of Wlv1 is stated as not being applicable to Infrastructure Maintenance on the basis that maintenance resource has been brought in-house by Network Rail. As no external procurement is required it follows that no contract strategy is required.

### *General Compliance*

- 4.4.24 Compliance with s.6.4 would be evident through the submission of Gateway 3 (contract award recommendation papers) to the relevant procurement authority depending on the value of the works to be awarded.
- 4.4.25 From the evidence provided by the four project audits (excluding Tipton) the Independent Reporter observes that:
- Wimbledon, Blackfriars and Great Eastern all demonstrated use of the new Gateway 3 format to justify each project's rationale for the proposed contract

awards. Review of the available Gateway 3 evidence provided confidence that the award decisions were being made in alignment with the contract strategies stated;

- In general the evidence also provided confidence that resources (indirectly referring to Critical and Scarce Resources) and schedule were a key considerations for project teams in the award decision;
- Cambrian is currently proceeding on the basis of a series of Letters of Intent due to particular constraints around the award of its main contract. However, the Independent Reporter acknowledges the very clear understanding of the Gateway process demonstrated both by the programme management and commercial team delivering this project. A clear intent to follow the Gateway process was evident.

4.4.26 Gateway 3 documents provide the final justification for a project's contract award proposal. It is noted that Gateway 3 documents are underpinned by more detailed tender evaluation documentation which assesses the commercial, technical, delivery, health safety and environmental credentials of the tenderers. Again, the Independent reporter reiterates the importance of Observation 2 above; Network Rail should review the specific support it requires from the supply chain in complying with Wlv1 and consider this in its tender evaluation.

4.4.27 The Independent Reporter is content that Network Rail has implemented the basic framework for defining contract strategies, preparing tender criteria, evaluating tenders and making justifiable contract awards in view of the requirements of Wlv1. The projects audited are starting to demonstrate that this process is being used. Network Rail's key embedment activity in this area is to ensure that future procurement includes provision of all support that Network Rail requires from its supply chain in order to comply with Wlv1.

### **Defining and Expediting Critical and Scarce Resource (Wlv1 s.6.5)**

4.4.28 Wlv1 states that s.6.5 provides a standardised procedure for scheduling and prioritising the allocation of Critical and Scarce Resource to projects and work sites from a national level via the modelling of supply and demand for Critical Resources.

#### *Maintenance*

4.4.29 S.6.5 of Wlv1 is applicable to Infrastructure Maintenance as Infrastructure Maintenance may require Critical and Scarce Resource to implement its work. This is on the basis that Critical and Scarce Resource may be sourced both internally and externally to Network Rail.

4.4.30 During the audit process Network Rail provided no evidence that Infrastructure Maintenance was compliant with s.6.5 of Wlv1. As discussed further at section 4.7 below Network Rail is currently in the process of integrating Infrastructure Maintenance into compliance with Wlv1 with the introduction of maintenance-specific Level 3 Work Instruction at the end of April 2009. Although this integration is incomplete the Independent Reporter is satisfied that Infrastructure Maintenance understands its requirements for Critical and Scarce Resources.

#### *Third Party Possessions*

4.4.31 S.6.5 of Wlv1 is stated as not being applicable to Third Party projects. By definition Network Rail is not the party placing the contract with the contractor for the possession works. This appears logical on the basis that the third party contractor will be responsible under its contract for engaging appropriate resource to deliver the works.

- 4.4.32 However, the Tipton possession ably demonstrates that the Network Rail must ensure that it is satisfied with the preparation of third party contractors – including expediting Critical and Scarce Resource – before it is content to allow third party possessions to proceed. The Tipton Team nominated its responsible Scheme Project Manager as Resource Expeditor to ensure that:
- The third party contractor had identified that the appropriate resources;
  - That the appropriate resources were booked in sufficient time;
  - Where the first two checks were not evident from the contractor's efforts, Network Rail intervened to make sure appropriate resource was available.
- 4.4.33 A key example of the latter was Network Rail's decision to book (at T-14), on the third party contractor's behalf, a contingency tamper which was due to be booked by the main civil contractor's track sub-contractor. At the time of the Tipton audit (T-6) the main contractor was still finalising the appointment of its track sub-contractor which prevented the sub-contractor booking the tamper.
- 4.4.34 In its current form the s.6.5 of Wlv1 is not applicable to Third Party schemes. The purpose of s.6.5 is to ensure that Network Rail takes a consistent approach for prioritising the allocation of Critical Resource and Scarce Resource to projects and work sites from a national level via the modelling of supply and demand for Critical Resources.
- 4.4.35 Although Network Rail is not the procuring authority - and by definition never will be for third party schemes - the Independent Reporter considers that Tipton strongly demonstrates the need for Network Rail to be satisfied that Critical and Scarce Resource for third party schemes is secured. In the case of Tipton Network Rail acted as Resource Expeditor, but this role may equally have been fulfilled by a nominated member of staff from the third party contractor through a particular condition of its contract.
- 4.4.36 In the Independent Reporter's opinion Network Rail should consider altering the current version of Wlv1 to recognise that third party schemes require a Resource Expeditor to be appointed and for Critical and Scarce Resources to be managed in the same consistent way for third party schemes as they are for Network Rail procured works.

Ref.	Secondary Observation	Supplier Management
3	The Tipton audit demonstrated the necessity and value of appointing a Resource Expeditor for third party possessions. The current version of Wlv1 does not require the application of s.6.5 to third party schemes.	
	<b>IR Recommended Action</b>	<b>Responsible – Network Rail Wlv1 owner</b>
	Wlv1 should be amended to require third party schemes to apply the requirements of s.6.5.	

*General Compliance*

- 4.4.37 From the evidence provided by the five project audits (including Tipton) the Independent Reporter observes that:
- Resource Expeditors were identified and generally appointed formally;
  - All Resource Expeditors delegated responsibility to varying extents;
  - For Wimbledon, Resource Expeditor responsibility was partly delegated to supply chain staff. This is not an issue but it is noted that some contractual arrangements will require direct support from the supply chain to fulfil Network Rail's responsibilities under Wlv1;

- It was generally less evident that the possessions demonstrated that Critical and Scarce Resource had actually been booked. At the end of the second paragraph on page 20 of Wlv1 Network Rail is required, depending on the extent to which resources are a constrain to delivery, that it “*shall clearly show where all resource is sourced including copies of contractual and sub-contractual documentation where appropriate*”. Several project teams commented that they did not understand what was expected of them in this regard;
- Particular measures had been taken by Cambrian to address the potential resource constraint arising from its engagement of a French signalling supplier. Network Rail is not the supplier's primary client and Network Rail has therefore undertaken to meet quarterly at Director level to ensure that Critical signalling resource is secured;
- For Great Eastern the project team sought assurance from its OLE contractors that the proposed OLE Linesman and Linesman Supervisor resource was competent. However, until Network Rail introduces its OLE Competency Standard and audits its supply chain against it, the evidence viewed suggests that Network Rail is taking contractor assurances at face value. This requires constant monitoring to ensure that ensure that the resource is, in fact, competent;
- No evidence of ‘resolution of conflicts in demand for Scarce Resource’ was observed through any of the Easter 2009 possession audits. However, Great Eastern provided evidence to demonstrate re-allocation of OLE linesmen from Great Eastern to West Coast Route Modernisation over Christmas 2008. It is not clear why this was necessary given that Network Rail's OLE resources were understood not to be fully utilised over Christmas 2008;
- There was general evidence to support communication between the Resource Expeditor and the relevant Category Supply Chain Representatives who maintain and populate each Critical Resource Database. The link between the resource Expeditor and Category Supply Chain Representatives was less evident for Wimbledon where the principles of the Critical Resource Database were less well articulated than on other projects. The Independent Reporter acknowledges that the named Resource Expeditor was not available on the day of the audit;
- As discussed below at section 4.8 it was less evident that the Programme Management Office had received confirmation of Resources by the required timescale (T-6) under Wlv1.

4.4.38 Overall, the Independent Reporter is satisfied with the intent and effort by all of the Network Rail project teams in their identification and organisation of Critical and Scarce Resources. It is evident that this key element of Wlv1 has been communicated and understood. However, the execution of Network Rail's responsibilities appeared to present a challenge. Generally confirmation of Critical and Scarce Resources was not achieved by the mandated timescale of T-6 (see s.6.9 T-6 Readiness Review requirement and s.6.11, p.34 Wlv1 where PMO is required to ratify the availability of Scarce Resource with Scarce Resource Category Owners). Wlv1 requires this timing to enable the Go / No Go decision for possessions at T-4. This issue may be related to the timing of the introduction of Wlv1 in relation to the audit timescale but it would appear that this issue is also driven by existing processes that are in place under supplier contracts for declaring possession resources. For example:

- Signalling resource on Blackfriars is required to be confirmed at T-3 under the signalling contractor's “End to End” process;
- Within track renewals an “End to End” process has been introduced that requires resource booking at T-20 and resource confirmation at T-2.



4.4.39 Wlv1 therefore makes requirements that challenge established resource booking processes in key asset areas. Existing processes should be reviewed and aligned as necessary to enable compliance with Wlv1.

Ref.	Secondary Observation	Supplier Management
4	General compliance with s.6.5 has been demonstrated by Network Rail but generally confirmation of Critical and Scarce Resource bookings has been later than T-6 as required by Wlv1. The T-6 requirement appears to exist to inform Go / No Go decisions at T-4.	
	<b>IR Recommended Action</b>	<b>Responsible – Asset &amp; Programme Directors</b>
	Network Rail should review the obligations of its exiting supply chain and revise its requirements as necessary to align obligations with the requirements of Wlv1.	

4.4.40 The requirement at the end of the second paragraph on page 20 of Wlv1 to “clearly show where all resource is sourced including copies of contractual and sub-contractual documentation where appropriate” prompted several project teams to comment that they did not understand what was expected of them. Further briefing should be provided to project teams in this regard. The Independent Reporter considers this requirement to be important were – as stated by Wlv1 – that particular care should be taken to confirm the booking of resources where they are a constraint to delivery. Following the audits the Independent Reporter acknowledges the welter of evidence that was provided to demonstrate that Kirow cranes, tampers and skilled labour resources were confirmed as booked. This demonstrates that confirmation of bookings can be achieved.

4.4.41 However, the Independent Reporter acknowledges that the booked confirmation of any resource may create administrative issues with the supply chain. Specifically, resource bookings may be expected to be confirmed along with the price for booking that resource. Under some contractual arrangements (particularly fixed price contracts) Network rail may not be entitled to see the price paid by a contractor for its resources. Where such instances occur this may deny Network Rail the opportunity to receive assurance of resource bookings or may force Network Rail to instruct its supply chain to provide booking confirmation by alternative means (for example, redacting the price of the resource from confirmed orders). Network Rail should consider how to overcome this issue during the embedment of Wlv1.

Ref.	Secondary Observation	Supplier Management
5	Some forms of contract (fixed price) may not entitle Network Rail to see the price paid by a contractor for its resources. Confirmed orders for resources may contain sensitive price data which may prevent Network Rail from receiving assurance that resources are in fact booked.	
	<b>IR Recommended Action</b>	<b>Responsible – Network Rail C&amp;P</b>
	Network Rail should observe and address any issues arising in this regard. This may require alternative administrative confirmation for the booking of Critical and Scarce Resources where they are viewed as a constraint to the delivery of a possession.	

### OLE Linesman Capacity and Competence

4.4.42 The availability of competent OLE linesman resource was identified as a key issue in the ORR January 2008 investigation report. The audit of Great Eastern demonstrated an organised approach to indentifying and booking OLE Linesman resource. The Independent Reporter notes the development of an Infrastructure Investment Controls Procedure entitled OLE Wireman Resource Profiling. This document sets the framework under which Network Rail identifies its OLE demand over 3 and 5 year horizons.

- 4.4.43 Although Network Rail has improved its organisation and resource profiling OLE would appear to remain a Critical Resource that may frequently be regarded as Scarce at periods of peak demand. The Independent Reporter notes that OLE resource was diverted from Great Eastern to West Coast Route Modernisation over Christmas 2008. It is not clear why this was necessary given that Network Rail's OLE resources were understood not to be fully utilised over Christmas 2008. It is not known if this decision to move personnel was based on a competence or capacity.
- 4.4.44 From the evidence viewed it appears to the Independent Reporter that Network Rail is reliant on its supply chain advising that its OLE resources are competent. Whilst the competency of OLE personnel will eventually be assured in a consistent way by Network Rail upon the introduction of its OLE Competency Standard, Network Rail must take particular care with the competence of OLE resource at peak demand periods. The Independent Reporter notes that Great Eastern has taken the positive step of providing specific training to 50 personnel in the use of new installation equipment for the Easter 2009 possessions.

Ref.	Secondary Observation	Supplier Management
6	Progress in identifying, profiling and securing OLE resource is evident to the Independent Reporter. However, this resource would appear to remain a constraint. Whilst Network Rail develops its OLE Competency Standard it remains dependent on its supply chain to confirm the competency of OLE resources and remains at risk of shortfall of this important resource.	
	<b>IR Recommended Action</b>	<b>Responsible – II CS&amp;P</b>
	At peak periods of demand (which Network Rail is now in a position to quantify) it should take sufficient precautions including, where necessary, the implementation of any necessary training. Great Eastern has demonstrated that the latter has been undertaken.	

## 4.5 Risk Management

### Introduction

- 4.5.1 Risk management is central to the overall success of Network Rail's Plan and is therefore a key element of Wlv1.
- 4.5.2 In this section the Independent Reporter considers Network Rail's compliance with the following sections of Wlv1:
- s.6.6 - Assessing Worksite Complexity;
  - s.6.7 - Creating an Integrated Work Plan;
  - s.6.8 - Contingency Planning;
  - s.6.9 - Risk Readiness Reviews and Risk Deliverability Reviews;
  - s.6.10 Quantitative Schedule Risk Assessment;
  - s.6.11 - Portfolio Deliverability Reviews.

### Assessing Worksite Complexity (Wlv1 s.6.6)

- 4.5.3 A key lesson from the January 2008 possession overruns was the lack of understanding of the risk (potential for overrun), profile (negative attention from external stakeholders) and impact (affect on the network and customers) that possessions might have.
- 4.5.4 Wlv1 states that s.6.6 provides a standardised procedure for the production of work site complexity index of Red, Amber or Green (RAG) against which levels of contingency planning, readiness review, Quantified Schedule Risk Assessment (QSRA) and site management are designed.
- 4.5.5 This element of Wlv1 is particularly important to the overall success of the improvement measures as the RAG rating determines the actions of projects against other key areas of Wlv1. If a Red or Amber assessment is made the rest of Wlv1 automatically applies which, in turn, triggers other key risk analysis requirements.
- 4.5.6 Applied correctly, the RAG assessment should promote a significant change in the way that Network Rail views and subsequently plans possessions; in future the focus will not necessarily fall on projects because of scheme value or perceived importance. The emphasis should be demonstrably placed on the potential effect of a possession on Network Rail's customers. Adequate and consistent RAG assessment is a key area that Network Rail should continue to monitor and moderate to ensure that projects receive adequate focus.

### Maintenance

- 4.5.7 Section 6.6 of Wlv1 is applicable to maintenance. However, the Independent Reporter previously noted in Deliverable 2 that the Wlv1 methodology for assessing work site complexity (RAG assessment) would not be suitable for maintenance given the high volume of maintenance possessions that would require assessment.
- 4.5.8 As discussed further below at section 4.7, Network Rail presently assesses maintenance work site complexity in a variety of different ways and is seeking to implement a consistent approach by the end of April 2009. The Independent Reporter notes the useful progress made by Anglia in its approach to risk assessment to address overrunning track maintenance possessions. This provides confidence that Network Rail will move to a consistent and compliant approach with Wlv1 for assessing maintenance worksite risk.

*General Compliance*

4.5.9 From the evidence provided by the five project audits the Independent Reporter observes that:

- The RAG assessment for Tipton was completed early (T-19) and was initially assessed as Red. This was later revised to Amber through agreed and documented revision of the Impact criteria with Operations and Customer Services. In the Independent Reporter's view the early RAG assessment assisted the Tipton Team in organising itself to comply with the rest of Wlv1;
- Although here was no evidence that Wimbledon had documented its RAG assessment it was able to clearly explain the rationale for the assessment arrived at (Red). The Independent Reporter would recommend that RAG assessments are always recorded in order to support reasons for any future change to the assessment rating;
- The RAG assessment for Cambrian's Easter 2009 possession at Caersws level crossing was completed early (October 2008) and was assessed as Amber. Cambrian has also undertaken a look-ahead assessment of all its remaining possessions. This has evidently helped Cambrian with its long-term planning;
- Blackfriars has rated its Easter 2009 as Red. It was not clear when the RAG assessment was undertaken;
- Great Eastern has undertaken a comprehensive RAG assessment of all of its future work sites. Its Easter 2009 possession was rated Amber;
- Generally, the evidence supported Operations and Customer Services (O&CS) endorsement of the RAG assessments, although these were not always clearly documented.

4.5.10 The Independent Reporter was satisfied with the explanation provided for the RAG assessments in each case. The evidence, however, suggested various different approaches to documenting the RAG assessment. The Independent Reporter would recommend that Network Rail reviews the different approaches and proposes a standard format for recording and tracking the RAG assessments. With the addition of O&CS approval and a brief description of the rationale for the RAG assessment, a combination of the Cambrian and Great Eastern approach might be considered as the basis for a standard approach.

Ref.	Good Practice Observation	Risk Management
7	Various means of recording RAG assessments were viewed. Examples of efficient methods were viewed that provide confidence that the assessment has been undertaken competently.	
	IR Recommended Action	Responsible – PMO
	Network Rail should consider providing a standard template for recording RAG assessments.	

**Creating an Integrated Work Plan (Wlv1 s.6.7)**

4.5.11 Effective contingency plans and QSRA's can only ever be developed if they are underpinned by credible and robust schedules for delivering the works. Network Rail addresses this under Wlv1 s.6.7.

- 4.5.12 S.6.7 states that Wlv1 provides a standardised procedure for production of an Integrated Work Plan (IWP) by the Lead Project in a possession. The IWP should include critical activities from all work site plans within a single possession (where interdependencies between work sites exist).
- 4.5.13 S.6.7 applies to Red and Amber RAG rated work sites. It therefore applies to all project possessions audited.

### **Nomination of Lead Project Status**

- 4.5.14 From the evidence provided by the five project audits the Independent Reporter observes that:
- All projects audited assumed Lead Project status;
  - Some projects (for example, Tipton and Cambrian) reported uncertainty that PMO had identified them as Lead Project. Generally the decision to proceed as Lead Project was agreed with the relevant Asset or Programme Director;
  - Apart from Great Eastern, there were no other works identified in possessions with the potential for significant interdependencies. Apart from Great Eastern the identity of the Lead Project was therefore a straightforward decision.
- 4.5.15 Initially, Great Eastern was identified as the Lead Project for a possession in the Stratford area which also includes other work sites related to Docklands Light Railway and 2012 works. The Independent Reporter was provided with evidence that demonstrates that there are now two 'Lead Projects' (Great Eastern and DLR8) under the same possession which PMO has apparently agreed. This approach appears to have been taken on the basis that both the Great Eastern and DLR8 work sites are complex in their own right (DLR8 is a Red rated site). The Director of Network Rail's 2012 works wrote to PMO setting out the rationale for its decision. This appears to have been accepted by PMO.
- 4.5.16 Aside from the fact as to whether or not the work sites are truly independent of one another (the same isolation for the possession is required and the possession handed back – by definition the possession would be affected by the progress of both work sites), the dual Lead Project status under one possession has the potential to present confused site reporting to Infrastructure Control Group (IGC) unless specific provisions have been made. The Independent Reporter has not seen sufficient evidence to confirm that reporting to IGC has been clarified.

### *Preparation of Integrated Work Plans*

- 4.5.17 The competent preparation of IWPs is important both for the development of Works and Operational Contingency Plans and to allow QSRA to be undertaken. As a QSRA is required to inform the Second Deliverability Review at T-12 it follows that IWPs must be prepared and checked in sufficient time to allow QSRA to be undertaken and checked ahead of T-12.
- 4.5.18 From the evidence provided by the five project audits the Independent Reporter observes that:
- Some IWP schedules were produced later than T-12. Schedules appear to have been prepared as follows:
    - Tipton – Initially produced in October 2008 and revised 25 January 2009 (T-11);
    - Wimbledon – T-7 approximately (leading to T-6 and T-5 QSRA);

- Cambrian (Caersws level crossing) – not evident at audit undertaken at T-5, although evidence of schedule production for possessions after Easter 2009 was clearly evident;
  - Blackfriars – Initially produced in time for QSRA in T-12;
  - Great Eastern – The three QSRA's undertaken from T-11 to T-5 suggest that the IWP schedule was in place broadly from T-11 however the appropriate version was not produced until T-5.
- Some IWPs had to be revised to address alterations to work content (Tipton) or were not produced in a form that effectively enabled QSRA (the signalling schedule for Blackfriars was produced on a shift, rather than activity basis);
  - The format of some schedules produced by the supply chain required conversion by Network Rail to facilitate QSRA;
  - IWP schedules were eventually produced for all possessions to permit Go / No Go decisions at T-4.
- 4.5.19 The late production of IWPs appears to be for two reasons:
- The timing of Wlv1 on 1 January 2009 required immediate response from projects to enable compliance (1 January 2009 was T-14); and
  - Some of the supply chain appears to have either been following existing processes, reluctant (perhaps because they might not be contractually obliged to produce such schedules) or slow to produce a schedules requested by Network Rail project teams.
- 4.5.20 The Independent Reporter is less concerned about the former reason as appreciation and intent to comply with Wlv1 was evident from each project team.
- 4.5.21 The latter issue may present an issue to Network Rail in future compliance with Wlv1 if the supply chain expresses reluctance to engage, perhaps because they are not contractually obliged to produce schedules for the purpose of QSRA. Although Wlv1 does not directly place obligations on the supply chain it is obvious that Network Rail cannot comply with Wlv1 without the supply chain's support. Some contractor's will embrace the opportunity to produce schedules in support QSRA whilst others will, reasonably, be concerned about their exposure to contractual risk.

Ref.	Secondary Observation	Risk Management
8	The slow response in producing IWP schedules for the purpose of QSRA may have been caused by some reluctance on the part of the supply chain in respect of their contractual obligations in respect of schedules. This appears to have prevented the competent production of IWP schedules in accordance with the timescales required by Wlv1. This has generally resulted in the late production of QSRA. If this trend continues this may lead to instances where issues are discovered at a late timing before a possession with little opportunity to resolve.	
	<b>IR Recommended Action</b>	<b>Responsible – Network Rail II C&amp;P</b>
	Current and future obligations in contract documentation should be reviewed and, where necessary changed to reflect the requirements of Wlv1.	

4.5.22 Evidence of different processes included the Track Renewals “End to End” process which does not presently envisage the need for QSRA. In turn, this precludes the need to produce an IWP in a form appropriate for QSRA. The Independent Reporter understands that Network Rail is reviewing the Track Renewals “End to End” process to align it with the requirements of Wlv1.

Ref.	Secondary Observation	Risk Management
9	Misalignment between existing ‘Level 3’ processes (for example Track Renewals “End to End” process and a similar approach adopted by the signalling contractor on Blackfriars) were in evidence which prevented the competent production of IWP schedules in accordance with the timescales required by Wlv1. This has generally resulted in the late production of QSRA. If this trend continues this may lead to instances where issues are discovered at a late timing before a possession with little opportunity to resolve.	
	<b>IR Recommended Action</b>	<b>Responsible – II Asset &amp; Programme Directors</b>
	Existing Level 3 processes should be reviewed and revised to align with the requirements of Wlv1.	

4.5.23 Despite the timing of some of the schedules it was evident that all projects audited eventually produced appropriate schedules. Overall Network Rail has sought to be compliant. Those projects that produced IWP schedules early appear to have benefitted in the remainder of their preparation for the possession.

### Contingency Planning (Wlv1 s.6.8)

4.5.24 Section 6.8 of Wlv1 places both responsibility and accountability on the Network Rail Project Manager of the Lead Project for the possession to develop and publish contingency plans which will be complete by T-6 to inform the T-4 GO / NO-GO decision. Diversionary routes must be specified by T-32. The contingency plans are required to address both works contingency (identification of risks and mitigation to recover delayed site works, for example by holding stand-by plant on-site) and operational contingency plans which address the needs of Network Rail's customers.

4.5.25 From the evidence provided by the five project audits the Independent Reporter observes that:

- Tipton's contingency plan was produced and accepted by Operations and Customer Services (O&CS) by T-6. At time of audit (T-6) Tipton had not yet shared the contingency plan with PMO, TOC or IGC. Due to the nature of this project it is noted that there are extremely limited opportunities to curtail the works;
- Wimbledon produced a contingency plan in the spirit of the work instruction but did not use the template provided. O&CS sign-off was evident. The contingency plan was completed at T-4 rather than the mandated deadline of T-6. No distribution list was evident;
- Cambrian had produced a draft contingency plan by the time of audit at T-5. O&CS input was demonstrated;
- Blackfriars commenced production of its contingency plan early and a revised T-8 version was available at the audit. The final version was signed-off at T-4. No circulation list was provided;
- Great Eastern's contingency plan was approved at T-8. However, this contingency plan does not recognise the existence of the DLR8 works in the same possession. The Independent Reporter acknowledges that this was a conscious decision by the Great Eastern and DLR8 project teams. In the Independent Reporter's opinion the

existence of the DLR8 works under the same possession should be clarified under the Contingency Plan and IGC specifically briefed on the particular reporting mechanism for these sites. Such a briefing was not evident at the time of the audit. Also clarification is required as to who will be the Network Rail Site Representative for the possession. A revised contingency plan is required.

- 4.5.26 Apart from the observations on Great Eastern the Independent Reporter is broadly satisfied that the project possessions audited have complied with the requirements and spirit of Wlv1. Some of the contingency plans were produced slightly later than required and all contingency plans would benefit from clearly detailing the parties to which the plans had been issued.

### **Risk Readiness Reviews and Risk Deliverability Reviews (Wlv1 s.6.9)**

- 4.5.27 Prior to the introduction of Wlv1 Network Rail's baseline position demonstrated an inconsistent approach to assessing 'risk readiness' and 'deliverability' on both an individual project and national basis. Wlv1 represents a significant step forward from the baseline position in that:

- Risk Readiness and Deliverability reviews are now mandatory for all projects assessed as Red or Amber;
- Risk Readiness and Deliverability reviews must happen at defined points (T-37, T-37 to T-14, T-12, T-8, T-6 and T-4) which provides confidence that projects will be reviewed at regular intervals with the aim of checking that identified issues have been addressed;
- The reviews are undertaken by Lead Reviewers appointed on the basis of their competence to assess the issues;
- All reviews are underpinned by input documentation that will allow the robustness of the project to be assessed. This should promote a culture of thorough preparation;
- Portfolio Deliverability Reviews will assess the ability of an asset or major programme to deliver at peak periods of resource demand i.e. bank holidays.

- 4.5.28 The success of these reviews is crucial to the future delivery of possessions both from a disruption and efficiency perspective. Ultimately, the reviews are undertaken by individuals (Lead Reviewers) who are selected on the basis of their competence and the substantiation of their decision-making is fundamental to the GO / NO-GO decision made at T-4.

- 4.5.29 From the evidence provided by the five project audits the Independent Reporter observes that:

- Tipton followed the requirements of Wlv1. Although this possession was Amber and not Red, the project team still appointed an independent peer reviewer. The project felt this would be beneficial as an extra check;
- Wimbledon appointed an independent peer reviewer and undertook the T-12 Second Deliverability Review at T-9. Wimbledon followed the Track Renewals "End to End" process which is similar to Wlv1 with the exception of the requirement for operational contingency planning and QSRA. The timing of reviews under the track process are also slightly different;
- Cambrian generally undertook its Risk Readiness and Deliverability Reviews in accordance with Wlv1. However, due to the lack of IWP the QSRA did not happen in time for the T-12 Second Deliverability Review;
- In a similar manner to Wimbledon, Blackfriars has followed a similar process to Wlv1 in the form of the signalling contractor's readiness process which mandates



reviews at T-20, T-18, T-10, T-6 and T-3. Blackfriars tracked actions at weekly 'Plan Do Review' and contractor interface meetings. No direct output from deliverability reviews was evident to support the position of the Blackfriars possession;

- Great Eastern's approach to conducting and documenting Risk Readiness and Risk Deliverability Reviews is compliant with the requirements of s.6.9 of Wlv1 and provides an example of good practice that may be used to assist compliance across Network Rail. The approach cuts administrative paperwork to a minimum and provides a clear record of actions and status at each review point. An enhancement would be the inclusion of brief statements to demonstrate why actions may be closed. This record should be reconciled with the actions arising from the QSRA. Although other projects audited have undertaken site audit and checks, Great Eastern has produced the most clearly documented approach. Again, Network Rail should consider this approach to assist embedment of the Work Instruction principles across the business.

4.5.30 Although all project possessions audited demonstrated regular reviews to check the readiness of projects a mixture of practice was observed. The Independent Reporter is conscious of the potential for project reviews to become an industry that has the consequence of reducing efficient delivery. Network Rail should therefore observe its own practice and devise the most efficient means of recording the requirements, issues and actions arising out of the Risk Readiness and Risk Deliverability schedule. Great Eastern's practice might be considered as a starting point.

4.5.31 The existence of asset-specific readiness review processes was evident for Wimbledon and Blackfriars. Following the Wimbledon audit Network Rail provided evidence to demonstrate a review of the Track Renewals "End to End" process and how it might be aligned with Wlv1. The Independent Reporter considers that operational contingency planning and the requirement for QSRA should both specifically be strengthened in the track process. Observations 2 and 9 stated above relate to addressing this issue.

### **Quantitative Schedule Risk Assessment (Wlv1 s.6.10)**

4.5.32 In Deliverable 1 the Independent Reporter observed that Network Rail had actively sought to capture examples of best practice risk management from both within Network Rail and similar organisations. In the Independent Reporter's opinion the issue was not that Network Rail did not understand the tools available to it, but rather it did not apply them appropriately and consistently.

4.5.33 For Red and Amber possessions QSRA are now mandatory under Section 6.10 of Wlv1. The requirement is to undertake at least one QSRA by T-14 to inform the T-12 Second Deliverability Review. Network Rail has developed draft guidance for projects in undertaking QSRA. Prior to the audits the Independent Reporter observed that:

- Effective and credible QSRA must be based on robust and accurate underpinning documentation. Wlv1 puts the framework in place for obtaining underpinning data (site-specific schedules, identifying and securing Critical Resources, Contingency Plans) ahead of the QSRA. However, this always remains a challenge and Lead Reviewers must demonstrably challenge the quality and content of the underpinning data in reaching an eventual GO / NO GO decision at T-4;
- Attitude to risk is influenced directly by the behaviours and values of individuals. Wlv1 permits Project Managers to proceed with a possession after T-12 if the QSRA returns a result 'greater than 90%'. If less than 90% the authority of the Programme Director (or maintenance / Asset equivalent) must be sought. The Independent Reporter considers that the 90% criterion must be treated as a guide and not a guarantee of success. A '90% pass' only provides assurance when key risks have been identified and modelled, and appropriate mitigation has been identified;

- Compared with other improvements introduced by Network Rail the Independent Reporter considers that embedding best practice in the use of QSRA will, due to behaviours, be a longer term initiative. Whereas good guidance can be developed in this specialism, the success and embedment of formalised quantified assessment will depend on the cultures of project teams and a clear understanding that the benefit of a well run (and attended) QSRA workshop is more than providing a final number. This understanding is still to be proven.

4.5.34 From the evidence provided by the five project audits the Independent Reporter observes that:

- The QSRA for Tipton was appropriate and has been undertaken in a timescale compliant with the work instruction. The project had the right attendees at the QSRA and identified specific mitigation actions to be undertaken by named individuals by stated deadlines. Evidence of action close-out was not entirely evident and this appears to be partly as a result of the later than anticipated appointment of the track sub-contractor. The QSRA report had not been signed by the Project Manager. Although the Risk Analyst is responsible for producing the QSRA good practice would require that the QSRA is owned and accepted by the Project Manager;
- The late production of the schedule for Wimbledon resulted in a late QSRA against the requirements of Wlv1. As noted earlier this appears to have been driven by the timing and requirements of the Track Renewals “End to End” process. The QSRA 90% criterion was achieved by reducing the activity timescales in the contractor’s schedule. No justification for reducing timescales was documented in the QSRA report. The QSRA report was not signed by the Project Manager;
- For Cambrian the project demonstrated early QSRA practice which was instrumental in changing the commissioning strategy from a single to a phased commissioning in late 2009. This demonstrates the positive benefit of QSRA; the point of QSRA is not to ‘score’ greater than 90% but to objectively challenge delivery plans and assumptions. For Caersws levelling crossing (Cambrian Easter 2009 possession), however, the project undertook its QSRA late following late production of the schedule. This appears to have been an issue with the contractor rather than the intent of the Network Rail team;
- The early production of the contractor’s schedule has allowed the Blackfriars QSRA to proceed broadly in accordance with the timescales required by Wlv1. The risk approach by the Thameslink team appears strong but the rejection of the second QSRA reveals a potential weakness in the way that signalling schedules are prepared. Given the complexity of the Thameslink works the schedule and QSRA will need to remain under review given that the Easter 2009 possession will depend on the successful completion of preceding possession work;
- Great Eastern eventually completed its QSRA at T-5 following an initial analysis at T-11. In the Independent Reporter’s opinion the overall QSRA could have been completed earlier but was due to the interfaces with the DLR8 works at Stratford and the delayed progress with the OLE design. Some of the schedules appear to have reduced detail in areas which reduces the effectiveness of the QSRA. However, the Independent Reporter’s impression has been that the Great Eastern team understands the requirements of Wlv1 to a high level.

4.5.35 QSRA is important not in order to gain a “90% pass” but to ensure that key data is collected, assessed and understood to ensure that projects have sufficient time to mitigate any new risks and issues identified. In general the Independent Reporter has observed projects with a willingness to comply with Wlv1 however some may need more convincing as to the benefits of QSRA. As noted previously this will be a medium to long-term exercise to ingrain appropriate risk attitudes and appetite.

- 4.5.36 One of the key aspects of the schedule risk assessment for most rail works in possession is that the analyst is usually independent of the project team. The Independent Reporter views this as a benefit where challenges can be made more easily. As analysts can move between projects and areas, experience is gained and best practice spread. This model is different in major programmes where workload can give constant employment, and in the case of Thameslink, a senior appointment. Whereas this has seemingly encouraged ownership of the QSRA process Thameslink, ownership will always be down to the project manager and senior members of the team.
- 4.5.37 There is a peak in requirements for analysts due to the fact all QSRA's are required for T-12 before peak demand periods (bank holidays and Christmas). Some overall planning should be implemented for key possession times.
- 4.5.38 Outside of major projects (where integrated teams are evident) there was evidence of general lack of time allocated to prepare schedules and organise QSRA's. Project teams were then under pressure to meet 90% probability of completion, when earlier assessment could identify key risks and their potential mitigation.
- 4.5.39 Contractors are not providing enough detail early enough and quality of the work schedules vary, indeed often the first chance of schedule integrity check and task linkage is at the QSRA when relevant contractors are present. It was stated by more than one risk analyst that it would be useful if planners (both Network Rail and contractors) more fully understood the risk analysis software mandated for use by Network Rail. It is noted that such training was being undertaken on Thameslink.
- 4.5.40 In general the Independent Reporter considers that the risk analysts interviewed appeared well trained, enthusiastic and were seen to be assisting projects over an above running QSRA's in both analysing schedule integrities and helping integrate independent schedules.
- 4.5.41 The Independent Reporter notes two issues with the QSRA reporting format:
- The ownership of the QSRA will always be doubtful if the document is not signed off by the project manager. From the evidence provided the front page signatures suggest analyst and not project management ownership. It is suggested that future QSRA's are approved by the project manager. The Independent Reporter considers that project managers should sign the QSRA reports to demonstrate ownership of the analysis and its recommendations. This will avoid the temptation of project teams to meet the "90% pass" and no more;
  - Good practice would require that QSRA reports are updated to confirm that mitigating actions have been completed and that the analysis remains valid at the point at which the possession proceeds. This will force projects to ensure that the QSRA remains under observation in view of pre-possession works.

Ref.	Secondary Observation	Risk Management
10	The standard QSRA template might be enhanced to increase the ownership of QSRA by project managers and to improve visibility that QSRA actions have in fact been closed.	
	IR Recommended Action	Responsible – II Risk Management
	Project managers should be signatories to the QSRA. The QSRA should undergo final sign-off to confirm that all actions have been addressed and the analysis remains valid at the time of the possession.	

4.5.42 Overall the Independent Reporter is satisfied with the intent and effort of Network Rail to undertake competent QSRA at appropriate timing to aid possession planning and delivery. During embedment Network Rail must concentrate on improving the input to this process from its supply chain.

### Portfolio Deliverability Reviews (Wlv1 s.6.11)

4.5.43 Section 6.11 – Portfolio Deliverability Reviews places a number of key responsibilities on Network Rail's Programme Management Office (PMO). PMO's role is to ensure that a holistic review of all possessions is undertaken for possessions which are scheduled for execution over a specified period. This includes, but is not limited to, bank holiday weekends.

4.5.44 During the audit PMO representatives provided an overview of their role and presented evidence supporting its actions in preparation for the May Day bank holiday in 2009. Given the focus of the project audits above on Easter 2009 the Independent Reporter requested and received evidence relating to the Easter 2009 period.

4.5.45 From the evidence provided at the PMO audit the Independent Reporter has the following observations:

- Portfolio Deliverability Reviews have been undertaken at timings that are consistent with the introduction of the Work Instruction on 1 January 2009 for the Easter and May 2009 bank holidays;
- The Independent Reporter notes that the PMO action trackers for both the Easter and May 2009 bank holidays have been collated at T-12, T-8 and T-4. The Work Instruction states that the Portfolio Deliverability Reviews will occur at T-32 and T-28 (due to the introduction of the Work Instruction on 1 January 2009 these reviews were not possible), T-11, T6 and T-3. This appears to represent the items that will be reviewed at each of the Risk Readiness and Risk Deliverability Reviews that are required of each possession from T-12 onward;
- The Independent Reporter received feedback from most of the project teams audited that the timing of some of the Portfolio Deliverability Reviews was unclear for Easter 2009. The Independent Reporter notes that any issue here should now be resolved in view of the 'review diary' that has been published for the rest of 2009;
- The PMO action trackers provide a clear statement of issues outstanding on the planned possessions. If no statement is made the assumption of the tracker is that the possession has closed its actions;
- As there is a requirement on projects to provide evidence of Work Instruction compliance to PMO at stated points in time (e.g. QSRA, Contingency Plan) PMO should be in a position to provide detailed documentation to stakeholders and media should this be necessary;

- The “Consolidated RAG Summary” contains a record of each disruptive possession split by asset area or major project. For each possession this register records each Wlv1 product to be reviewed at T-12 and T-4;
  - In the 19 March 2009 Consolidated RAG Summary provided to the Independent Reporter<sup>27</sup> the status of Critical and Scarce Resource was largely not stated. 19 March 2009 is T-3. Critical and Scarce Resource should be confirmed to PMO no later than T-6. This supports the position on a number of the possessions audited where evidence confirming the booking of Critical and Scarce Resource was unavailable at the time of audit. This is an area that requires strengthening with the supply chain, Network Rail project teams and PMO. Projects were stated as ‘Go’ in the absence of confirmation of Critical and Scarce Resource;
  - Apart from the status of Critical and Scarce Resource the Independent Reporter notes that appears that PMO has otherwise adopted a robust position where evidence has not been provided to PMO in the timescales required under the Work Instruction. Possessions remain ‘No Go’ until project teams upload the necessary evidence to CCMS;
  - The Independent Reporter notes feedback from various possessions audited that CCMS is not yet available to all parts of Network Rail's business. It is understood that this situation will improve. In the interim, both project teams and PMO will be faced with a higher administrative effort;
  - PMO stated that it will brief the various teams that are working at Easter 2009 of the requirement to report back with details of the actual resources used, risks realised and any overrun or unexpected outcomes from the portfolio. This is a specific requirement of Wlv1 which, in the Independent Reporter's view should be undertaken robustly to ensure that the reasons for possession failures are understood and to improve the efficiency of the overall process.
- 4.5.46 On the basis of the evidence provided the Independent Reporter considers that the processes developed by Workstream Leaders in the development of the Plan up to the Christmas 2008 trial has been successfully transferred to the ownership of the Network Rail PMO.
- 4.5.47 The Independent Reporter has the impression that the mobilisation period for PMO demanded a significant initial effort but this has generally resulted in compliant management of the Portfolio Deliverability Review Process. The preparations for the May Day bank holiday already appear to have built on the initial effort. In order to continue improvement the Independent Reporter has the following observations:
- Some of the possessions audited were not clear on their status as Lead Project. This would appear to have been a mobilisation issue with the introduction of the Work Instruction on 1 January 2009;
  - It is not evident what executive level reviews are undertaken outside peak periods (Christmas and bank holidays). There is the potential for Red or Amber rated possessions to occur at any time;
  - Confirmation of Critical and Scarce Resource by T-6 for Easter 2009 was largely unrecorded at T-3. Projects were stated as ‘Go’ in the absence of this data;
  - Configuration of Site Reporting Tools (particularly Type 2) appears to have been an issue for most projects audited;

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<sup>27</sup> 090319 - Consolidated Easter RAG Summary -ver1.15.xls

- Projects claim that placing 'readiness evidence' on CCMS has been time-consuming. It is noted that not all functions within Network Rail have CCMS access.

Ref.	Secondary Observation	Portfolio Deliverability Reviews
11	<p>Following on from PMO's successful mobilisation of its team and controls to administer the overall readiness review process, the following items should be addressed in order to embed a robust and efficient process:</p> <ul style="list-style-type: none"> <li>– Some of the possessions audited were not clear on their status as Lead Project. This would appear to have been a mobilisation issue with the introduction of the Work Instruction on 1 January 2009;</li> <li>– It is not evident what executive level reviews are undertaken outside peak periods (Christmas and bank holidays). There is the potential for Red or Amber rated possessions to occur at any time;</li> <li>– Confirmation of Critical and Scarce Resource by T-6 for Easter 2009 was largely unrecorded at T-3. Projects were stated as 'Go' in the absence of this data;</li> <li>– Configuration of Site Reporting Tools (particularly Type 2) appears to have been an issue for most projects audited;</li> <li>– Projects claim that placing 'readiness evidence' on CCMS has been time-consuming. It is noted that not all functions within Network Rail have CCMS access.</li> </ul>	
	<b>IR Recommended Action</b>	<b>Responsible – Programme Management Office</b>
	<p>Network Rail PMO should continue to review the embedment of its processes following the experience of Easter 2009 to ensure both efficient and robust delivery. The observations stated above should be addressed.</p>	

## 4.6 Site Management

4.6.1 In this section the Independent Reporter considers Network Rail's compliance with the following sections of Wlv1:

- s.6.12 - Assignment of Construction Management Resource;
- s.6.13 - Selecting and Configuring Site Progress Reporting Tools;
- s.6.14 – Communicating Progress Information from Site.

### Assignment of Construction Management Resource (Wlv1 s.6.12)

4.6.2 The key outputs from this workstream comprise:

- The establishment of a competency 'database' of and development framework for Network Rail site managers;
- A document that sets out the process for ensuring that competent staff is allocated to possessions.

4.6.3 The evidence presented to the Independent Reporter by Network Rail indicates that a competency 'database' has been created that captures fully the competencies of the site management personnel that are currently employed by Network Rail. In addition a development framework has been produced to ensure that the site managers are appropriately trained for their particular job roles.

4.6.4 The process for ensuring that competent staff is allocated to possessions has been incorporated within Wlv1

4.6.5 From evidence presented prior to the audits the Independent Reporter is content that Network Rail has undertaken reasonable steps to understand and monitor the competence of its construction management personnel. These personnel will undertake the important role of accurately monitoring and reporting actual worksite progress and implementing pre-planned contingency measures should they be required.

4.6.6 The Construction Management resource is the key link to Network Rail's supply chain and will also be responsible, to varying degrees, for checking and accepting works upon completion. The level of supervision (the 'construction management philosophy' referred to in Wlv1) will depend on the contract strategy adopted. Wlv1 therefore relies on the tender and contract award process to ensure that appropriate and competent contractors have been appointed to the works. Clearly, Construction Management professionals will have a view on the appointed contractor's arrangements and should be a key participant in QSRA process at, or before, T-14.

4.6.7 From the evidence provided by the five project audits the Independent Reporter observes that:

- Tipton is compliant with section 6.12 of Wlv1 with the exception of formalising the competence of its site management resource. Wlv1 mandates this for all personnel, no matter how senior. It had not occurred to the Tipton team that senior management covering some of the shifts would still require competence to be confirmed. This is important as it may not automatically be the case that senior management is competent to understand contractor's actual progress on site;
- Wimbledon has sought to follow the requirements of Wlv1. A point that requires clarification in Wlv1 is whether or not the Network Rail Construction Management resource should always be a *Network Rail* member of staff, or under Network Rail's management control (for example a consultancy or agency staff). For Wimbledon the project has appointed construction management personnel from the contractor's staff. This appears to be a result of the 'one team' approach adopted as part of the overall track strategy. The project stated that it had allocated Network Rail staff as construction management resource on 'critical shifts';

- Cambrian named only one individual as the Network Rail site representative although a shift rota demonstrating construction management supervision was evident. Apart from a misunderstanding relating to the requirement for the nominated Network Rail Site Representative to be on site all of the time (in practice there are several individuals nominated to do this on a shift basis) the project is compliant with the requirements of s.6.12;
- For Blackfriars it noted that the Thameslink Programme has its own control room (the 'War Room'). It is understood that the Thameslink control room will communicate with IGC and will therefore fill the role of the 'Network Rail Site Representative'. The Independent Reporter notes that 'Network Rail Site Representative' should be site based and that the project has produced a shift rota of competent personnel to undertake this role on site. This is a particular arrangement to Thameslink. Blackfriars demonstrated a good level of compliance although Thameslink admitted that it had not declared some of its construction management resource for the purposes of Critical Resource planning on the basis that it did not want unnecessary pressure on releasing programme staff.
- Great eastern demonstrated compliance with s.6.12.

4.6.8 In summary, a general level of compliance was evident with s.6.12 of Wlv1.

4.6.9 The ORR investigation identified the need to strengthen Network Rail's surveillance of contractor's activities during possession works to overcome examples of inaccurate reporting from site. In this regard the Network Rail Construction Management should be representing Network Rail's interests and not that of the contractor. Although there is a balance to be struck between site surveillance and efficiency, for a Red-rated possession such as Wimbledon, the Independent Reporter's expectation would be that Network Rail staff, or staff engaged by Network Rail, would be appointed to monitor the contractor's activities. In the Independent Reporter's opinion Wimbledon should have sought derogation from Wlv1 to confirm the use of contractor personnel filling Network Rail Construction Management positions.

Ref.	Secondary Observation	Site Management
12	Some existing contract strategies will seek to use both Network Rail personnel as construction management resource. This will make sense from an efficiency perspective. However, the expectation of Wlv1 is that Construction Management Resource exists to represent Network Rail's interests on site by providing surveillance and reporting. Although Network Rail may contract external resource to act in the Construction Management role Wlv1 expects that this is independent of the contractor executing the works.	
	<b>IR Recommended Action</b>	<b>Responsible – Network Rail Asset and Programme Directors</b>
	Where self-certification approaches are selected or necessary because there is no other option, Network Rail should seek a controlled derogation from Wlv1.	

### Selecting and Configuring Site Progress Reporting Tools (Wlv1 s.6.13)

- 4.6.10 The key outputs from this workstream comprised the development of:
- A work measurement methodology;
  - A report template;
  - Work site contingency plans.



- 4.6.11 Network Rail has previously provided evidence of the types of reporting tools that have been developed and subsequently used on a trial basis on work sites in possessions on the Anglia Route. The tool selection process has been included in Wlv1 s.6.13.
- 4.6.12 The review of the documents that were provided by Network Rail prior to Christmas 2008 indicated that the relevant reporting tools were being selected for the work sites that were planned in the possessions over the Christmas and New Year period. The documents also contained evidence that contingency plans had been developed should progress within the possession be delayed.
- 4.6.13 From the evidence provided by the five project audits the Independent Reporter observes that:
- The Tipton project understood the difference between the proposed tools and which tool was appropriate for use at Tipton. The appropriate reporting tool (Type 2) was selected. At the time of the audit, the Type 2 tool was not available for review but the project team has requested the calibration of the tool against an appropriate list of milestones;
  - Wimbledon deviated from the requirements of Wlv1 based on previous negative experience of using the Type 2 tool. The Independent Reporter understands that previous problems related to the user-friendliness of the Type 2 tool rather than the principle of it. Should a project deviate from a requirement of Wlv1, this should be done in a controlled manner;
  - At the time of the audit the Cambrian project knew that it must develop a monitoring tool for the Amber rated possession at Caersws level crossing. Wlv1 anticipates that the monitoring tool may be developed between T-6 and T-0. The Type 3 chosen is appropriate for the works. The Independent Reporter notes that Cambrian has already made a decision to use the Type 1 tool for its phased commissioning at the end of 2009. This is appropriate in view of the multi-disciplinary nature of the commissioning;
  - Blackfriars is proposing to use a Type 2 tool on trial for track and a Type 3 tool for signalling. Compliance with Wlv1 would require that a Type 2 tool is adopted overall. Blackfriars' decision to proceed with different tools might be workable if there is sufficient separation between the S&C remodelling finishing and the signalling works starting. The interface between the two tools will require careful monitoring; if the track works fall behind the signalling Type 3 tool must record the initial delay it suffers. The decision to use different tools again appears to be driven by problems in configuring Type 2 monitoring tools and / or reluctance to use them. Network Rail should check that its approach for Easter 2009 is robust for Blackfriars. More generally, the apparent difficulty in configuring Type 2 monitoring tools should be addressed;
  - Great Eastern is compliant with the requirements of section 6.13 of Wlv1 and is aware of the tasks remaining to configure the site reporting tool. The project's experience of using the Type 2 tool over Christmas 2008 should be understood by Network Rail more widely; the Independent Reporter understands that the tool used at Christmas 2008 contained too many milestones which made monitoring and reporting difficult. As noted above, the interface between the Great Eastern OLE works and DLR8 at Stratford must be clearly briefed to IGC. As both of these work sites have been designated as Lead Project under the same possession there is the potential for IGC to receive confused reports on the status of the possession;
  - The Independent Reporter was provided with various draft site reporting tools after the audits were completed. These generally demonstrated competent configuration of the tools but the issues and risks sections required further work;
  - Most projects audited reported that the format of the Type 2 tool appears to be an issue; if the Type 2 cannot be read on mobile devices its use will diminish. A

configured Type 2 tool was provided to the Independent Reporter for Tipton following the audit. This suggests that technical issues with the Type 2 tool can be overcome.

- 4.6.14 Site monitoring tool selection and configuration is a task mandated by Wlv1 between T-6 to T-0. The audits therefore observed Network Rail's preparations at draft stage. Overall there was a clear appreciation for the requirement. Configuration and user-friendliness issues with the Type 2 tool need to be addressed.

Ref.	Secondary Observation	Site Management
13	Configuration and user-friendliness issues with the Type 2 tool have been experienced by projects. This has led to projects reverting to Type 3 tools.	
	<b>IR Recommended Action</b>	<b>Responsible – Network Rail Asset and Programme Directors</b>
	Configuration and user-friendliness issues with the Type 2 tool need to be addressed. Any deviation from the suggested tool under Wlv1 should be justified in a controlled manner.	

### Communicating Progress Information from Site (Wlv1 s.6.14)

- 4.6.15 S.6.14 states that Wlv1 provides a standardised procedure for the communication of the progress of work from the work site to stakeholders external to the work site and includes the procedure for instigation of the contingency planning arrangements for overrun of work leading to an overrun of the possession within which the work site is located.
- 4.6.16 As noted at 4.2.2 above the Independent Reporter agreed with Network Rail and ORR to extend one of the five project possession audits to allow s.6.14 to be audited. The Tipton project was chosen partly due to the complexity of the works – the project involved heavy civil engineering and third party contractor – and the opportunity to visit Infrastructure Group Control during the audit to view reporting from sites nationally.

### Tipton

- 4.6.17 The Independent Reporter audited the Tipton site between 19:00 and 21:15hrs on Friday 10 April 2009. Key observations from the Tipton site audit are:
- Network Rail provided evidence on the site laptop of the reporting that had been carried out at four hourly intervals since the start of the possession at 00:30 on 10 April 2009. The Type 2 tool was being used and milestone completions were being tracked. The next report was due to be issued at 20:00hrs (covering the period 16:00 to 19:59hrs) and this would be preceded by a progress meeting with the contractor, BAM Nuttall, at 19:30hrs;
  - The audit participants attended the progress meeting and details of progress were advised by the contractor. There was active dialogue between the contractor's team and that of Network Rail. The nature of the dialogue was such that it was clear that the Network Rail site management team was actively monitoring progress on site;
  - Following the meeting, the Type 2 report was updated by the Network Rail project manager and issued to the Infrastructure Group Control (IGC) at 20:00hrs. A copy of the report was provided to the Independent Reporter;
  - In addition, the auditor was included on the circulation list for the "mobile friendly" report and duly received it shortly after 20:00hrs;

- It was observed that the communication from site was from a single email source that was not necessarily consistent with the designated Network Rail Site Representative (NRSR). However, this appeared to be a convenience issue and there was evidence that the 'signatory' to the covering email to the IGC was the designated NRSR;
- It was also clear that the Type 2 progress report would have benefited from some additional milestones associated with activity completion to complement activity start times;
- Having observed the issue of the report to the IGC, the progress reported was verified against actual progress on site. Site activities were observed until 21:00hrs and there was no evidence that the progress reported was different to the actual progress achieved.

4.6.18 In summary there was evidence that the Type 2 progress report was being used by the NRSR to communicate progress accurately to the IGC. The Independent Reporter is therefore satisfied that Type 2 tools can be developed and used competently. The Independent Reporter notes observations above where other projects have struggled to configure the Type 2 tool. Network Rail should seek to address any remain issues.

#### *Infrastructure Group Control*

4.6.19 Following the site audit at Tipton the Independent Reporter visited Infrastructure Group Control at York to observe the arrangements in place to allow IGC to receive site progress reports. On the basis of the RAG assessment IGC would be required to escalate work site delays in accordance with the escalation procedure under Wlv1.

4.6.20 The Independent Reporter's observations are as follows:

- The Network Rail Duty Manager (NRDM) was asked to explain how the reports from the various sites are received and what is done with the reports once they are received;
- The NRDM explained the arrangements in the IGC. All of the possessions are held on the IGC electronic log. In addition the NRDM was using an Excel spreadsheet. A hard copy print-out was being used by the NRDM for all of the RED and AMBER possessions. The Type 2 progress report that was issued by the Tipton NRSR at 20:00 was displayed on the NRDM's computer screen and details from this report had been transferred to the electronic log. The NRDM stated that the Type 2 progress report held by the IGC is overwritten each time an updated report is received. Historic progress through the possession is retained in the electronic log;
- At 00:15 the updated Tipton Type 2 progress report, covering the period 20:00 to 23:59hrs, was received by the IGC by email. The signatory to the email was confirmed as being the NRSR per the roster that had been issued previously to the Independent Reporter;
- However, on checking against the IGC's electronic log and hard copy possession contingency plan, it was apparent that the IGC did not have the up-to-date NRSR roster for Tipton. This was rectified during the audit;
- The IGC logs delay against the respective possession programmes and compares them against the trigger delays for the purposes of escalating matters to Route Control or the National Operations Centre;
- Other observations included:
  - The reports from the Bethnal Green possession for the Great Eastern OLE Renewals were being telephoned through to the IGC due to the absence of an

internet connection on site. The IGC was updating the Type 2 progress report and electronic log to reflect the information provided by the NRSR;

- Progress reporting using the contractor's Type 3 reporting tool was evident for the Wimbledon S&C renewals. The contractor's pre-defined milestones were held by the IGC and progress was being tracked against these milestones;
- The NRDM was aware of the escalation procedure to Route Control and the National Operations Centre for both Red and Amber possessions. On a routine basis the NGC reports to Route Control on a 12 hourly basis;
- The national renewals contractors, Jarvis, Babcock and Balfour Beatty, report using their own systems. Jarvis and Babcock update the IGC log via their own control centres.

4.6.21 In summary the Independent Reporter is satisfied that there is evidence that the IGC receives reports from the NRSR for the various possessions. It was apparent that the IGC was aware of the escalation protocols for Red and Amber possessions, albeit that it had not had to trigger the escalation process.

## 4.7 Maintenance

- 4.7.1 The Independent Reporter notes that the Final Order does not specifically require Network Rail to address late possession cancellation and overrun issues in respect of maintenance possessions. The Final Order specifically targets project work as the key area for improvement.
- 4.7.2 However, through the Independent Reporter's monitoring of Network Rail's improvement programme it has been noted that Network Rail has sought to build on its initial work in improving the delivery of works in projects requiring possessions by considering the application of its improvements to Infrastructure Maintenance works.
- 4.7.3 As an organisation, Network Rail acknowledges that Infrastructure Maintenance is still in preparation to comply with the requirements of the Wlv1. The audit meeting undertaken for maintenance sought to provide the Independent Reporter with the following understanding:
- Applicability of Wlv1 to Maintenance possessions;
  - Allocating a RAG status to Maintenance work sites (current process);
  - Allocating a RAG status to Maintenance work sites (Anglia Route guidelines);
  - The Anglia Route experience (last 12 months);
  - Network Rail's future plan for implementing the requirements of Wlv1 within Network Rail's Infrastructure Maintenance organisation.
- 4.7.4 Significantly more maintenance possessions are taken in comparison with project possessions. Although it is understood that many more maintenance possessions overrun than project possessions it is understood by the Independent Reporter that the financial impact of overrunning maintenance possessions on Network Rail is significantly less than overrunning project possessions. However, it is understood that overrunning maintenance possessions can have a significant impact on the first timetabled train following an overrunning possession. Although this may not affect significant numbers of passengers, there may be a significant performance impact on Train operating Companies.
- 4.7.5 Network Rail has prepared preliminary statistics to demonstrate the relative impact of maintenance and project possession overruns. These statistics consider:
- Delay Minutes;
  - Incident Count;
  - Cancellation Count;
  - Assumed Schedule 8;
  - Delay Per Incident;
  - Incident Split.
- 4.7.6 Presently, maintenance records a higher value than project possessions for all of these comparators with the exception of Delay per Incident. This supports the need to extend the initial development of the Wlv1 to Maintenance possessions.

- 4.7.7 Within maintenance the mix of work includes Opex (majority) and Capex (minority), and most of the work is RAG assessed as Green with a limited number of Red and Amber sites. However, Network Rail stated that it plans to increase the volume of Capex work undertaken by Infrastructure Maintenance that would fall into Red / Amber. This is another reason for Network Rail to continue its work in improving the planning and execution of maintenance possessions.
- 4.7.8 Anglia Route has produced a document, entitled "Anglia Possession Overrun Reduction Strategy" that has been implemented for almost a year at the time of this audit (since Week 2 2008/09). This document has formed the basis for the Level 3 Work Instruction that is currently being drafted for Infrastructure Maintenance to assist in ensuring compliance with the requirements of Wlv1. The Independent Reporter has not been provided with the Level 3 Maintenance Work Instruction.
- 4.7.9 Network Rail advised that Wlv1 will be briefed to senior maintenance managers by the end of March 2009. The Independent Reporter has been advised that Network Rail intend to complete and brief the Level 3 Work Instruction applicable to Infrastructure Maintenance by the end of April 2009.
- 4.7.10 Wlv1 states that where Infrastructure Maintenance is executing the work only the following sections apply:
- s.6.5 – Defining and Expediting Scarce and Critical Resource;
  - s.6.6 – Assessing work site complexity;
  - s.6.8 – Contingency Planning; and
  - s.6.9 – Risk Readiness Review and Risk Deliverability Reviews.
- 4.7.11 In the Independent Reporter's opinion this range of application of the Wlv1 to Infrastructure Maintenance possessions is reasonable given the current type of work undertaken.
- 4.7.12 However, should Network Rail consider using Infrastructure Maintenance to undertake renewals works currently procured by Infrastructure Investment (for example, plain line track and S&C renewals) the Independent Reporter would expect Network Rail to apply the relevant sections of Wlv1. Although the commercial and procurement sections of Wlv1 would arguably still not apply (as long as Network Rail continued to use in-house resources only) the full force of the rest of Wlv1 should apply. This is not currently an issue given Infrastructure Maintenance's present remit.
- 4.7.13 Given that the Final Order focussed Network Rail's effort on project delivery – where the impact of possession overruns are most significantly felt by the travelling public – the Independent Reporter is satisfied that Network Rail has started to develop its approach to addressing maintenance possession overruns on the basis of its experience of developing and trialling Wlv1 and the development and trial undertaken on Anglia in view of its issues with track maintenance possession overruns.
- 4.7.14 Although the development of Wlv1 in respect of maintenance is beyond the requirements of the Final Order the Independent Reporter would recommend that Network Rail demonstrate to ORR that it has successfully implemented its Level 3 Maintenance Work Instruction. This might be achieved through KPI monitoring which is already established for project possessions.

Ref.	Secondary Observation	Maintenance
14	Based on the development and learning obtained from the introduction of Wlv1 in respect of project possessions Network Rail is now developing a Level 3 Maintenance Work Instruction to enable a consistent approach to risk assessment, planning and delivery of maintenance possessions. This is a necessary embedment activity.	
	<b>IR Recommended Action</b>	<b>Responsible – Network Rail Infrastructure Maintenance</b>
	Network Rail Infrastructure Maintenance should assure ORR that it has successfully implemented its Level 3 Maintenance Work Instruction. This might be achieved through KPI monitoring which is already established for project possessions.	

## 4.8 Communications

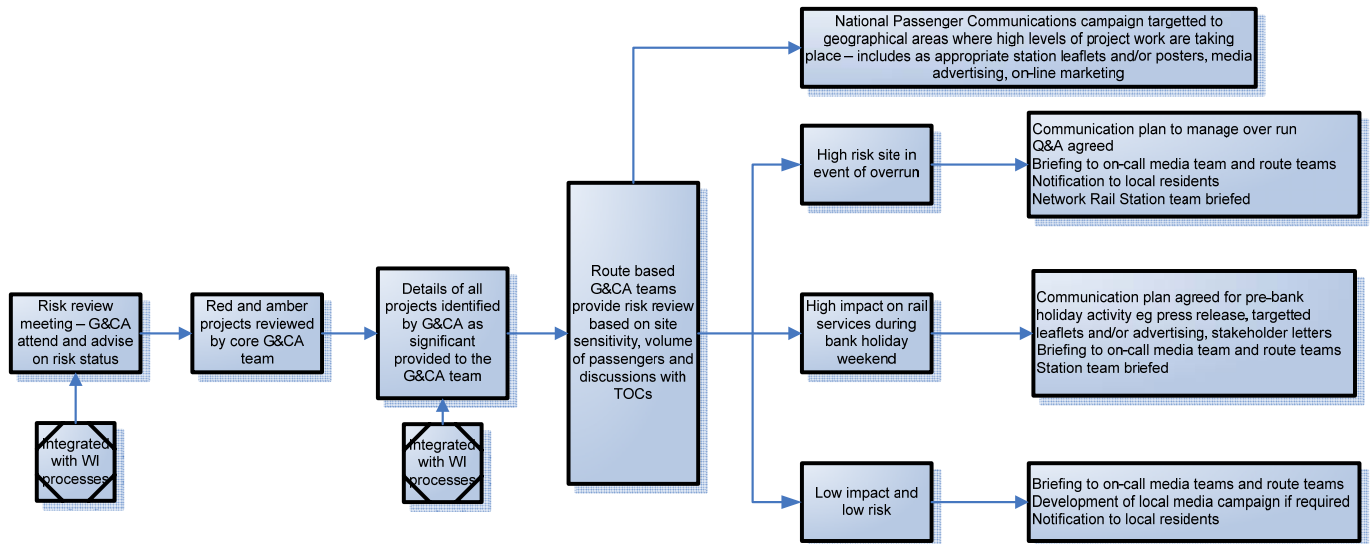
### Introduction

4.8.1 Communications emerged as a key issue in the ORR's investigation into the January 2008 possession overruns. Communications as a process runs parallel to and is interwoven with the entire infrastructure project production process, from possession planning and development through to implementation and completion. As such, it runs both runs separately to the project delivery processes outlined in Network Rail's Work Instruction "Delivering Work Within Possessions" (Wlv1) and connects with them at key stages of the planning process.

4.8.2 This section details the findings of an audit undertaken by the Independent Reporter into Network Rail's delivery of communications for the five projects chosen as sample for audit of Wlv1. In undertaking the audits, the Independent Reporter sought to understand the extent to which the Best Practice Guide – External Communications, Major Improvement Work (Bank Holidays), developed by Network Rail's Government and Corporate Affairs (G&CA) team in response to the requirement to improve communications following the January 2008 overruns, was being followed in the development of communications plans for Easter 2009. The audits also explored the link between carrying out of RAG reviews under Wlv1 and communications, including evidence of the designing of communications strategies appropriate to the risk levels of the work being undertaken. Evidence that best practice was being extended beyond the central G&CA team was also sought.

### The communications process

4.8.3 The figure below provides an overview of the process for developing communications for Bank Holiday possessions. The starting point for the process is the T-12 Second Deliverability Review.





- 4.8.4 Members of the central G&CA team attend the Portfolio Deliverability Review meetings with the Director, Infrastructure Investment, Programme Directors and other key individuals involved in delivering investment projects requiring possessions during Bank Holiday periods. The RAG output for each project is reviewed, and the G&CA team plays an active role, advising on the risk status of projects from a communications point of view. In terms of the Easter 2009 Bank Holiday works, the G&CA team were not represented at the T-12 Deliverability Review meeting. In the view of the Independent Reporter, this was a function of the introduction of a new way of working that was taking time to embed into the organisation. The effects were mitigated by the G&CA team receiving outputs from that review together with associated project risk rankings and by direct discussion of projects with the Director Infrastructure Investment. The Independent Reporter has seen evidence of the process for May 2009 Bank Holiday and is satisfied that the G&CA team are now integrated into the Deliverability Review Process.
- 4.8.5 Following on from the Deliverability Reviews, a member of the G&CA team undertakes an initial review from the communications perspective. This considers the volume of passengers potentially affected by disruption to services, the sensitivity of the work site location and the difficulty of delivering the project. Input is then sought from route-based teams, who will discuss the projects with train operators as appropriate. The result is a qualitative assessment of the level of communication risk attached to each project, based on collective knowledge and judgement.
- 4.8.6 From this, the G&CA team prepare a risk assessment and work summary programme. The figure below illustrates the scorings given to Easter 2009 possessions audited:

Scheme	RAG Score				G&CA scores	
	Risk	Profile	Impact	RAG rating	G&CA risk score	Communications risk score
Tipton	3	2	2	Amber	Medium	High
Wimbledon	2	3	3	Red	High	High
ERTMS	2	2	2	Amber	-	-
Thameslink	3	3	3	Red	Low	Low
Great Eastern	2	3	2	Amber	Medium	High

- 4.8.7 Depending on the outcome of the review, communications plans will be developed for each project, appropriate to the risk level. It should be noted that the figure above illustrates communication plan contents from a high level only. In practice, the Independent Reporter expects that actual contents will vary depending on the communications issues surrounding a particular work site and the range of mix of audiences that Network Rail is aiming to reach. The figure below overleaf is taken from Network Rail's Best Practice Guide and illustrates the type of activity that Network Rail would expect to put in place for different levels of possessions:

External Communications Activity	Possession Type				
	Bank Holiday work identified as 'high risk' by G&CA at 8 weeks out	Bank Holiday work not a G&CA "high risk" at 8 weeks out but rated "Red/Amber" by business	Significant possession (work delivered by "Major Project" team – Not over Bank Holiday	Significant possession (work delivered by route team/ maintenance) – Not over Bank Holiday	Standard possession (short/ limited impact on train services)
G&CA attend business risk reviews	√	√	Awareness of project risk review required	Awareness of project risk review required	
Comms strategy required	√		Managed within wider comms strategy	√	
On call team	√	√	24/7 press office	24/7 press office	24/7 press office
Briefing for on call team	√	√	√	√	
Targeted stakeholder approach	√		√ Managed within wider comms strategy	√ Managed within wider comms strategy	
Ops led TOC contingency plan	√	√	√	√	
Information on NRES (ROTR)	√	√	√	√	√
Notify neighbours	Refer to community relations notification guidelines				
Q&A	√		√	√	
Pre-agreed lines to take	√	√	√	√	
Planning with TOC comms	√		√	√	
Call to TOC media team	√	√	√	√	
Media release	√ (national and regional targeted)	√ (part of national)	√ (regional targeted)	√ (regional targeted)	
Content on NR website	√		√	√	
National advertising	√ (Bank Holiday advertising (consider regionalisation)	√ (Bank Holiday advertising)	Approach outlined in wider comms strategy	Approach outlined in wider comms strategy	
Briefing to affected station/ route employees	√	√	√	√	

**Guide to External Communications Activity vs Possession type**

Note - The table above is a guide. Activity around significant work should be agreed on a case-by-case basis.

## Tipton

- 4.8.8 The scheme at Tipton is being developed, delivered and largely paid for by Sandwell Metropolitan Borough Council (Sandwell MBC). Network Rail's G&CA team recognises the sensitivity of the project which involves a 101 hour possession of the West Coast Main Line. As a result, the project is designated high risk from a communications point of view. As a high risk project, the same measures would be expected to be in place for this project as for Wimbledon (see below). A communications plan has been developed, incorporating a Q&A brief and has been viewed by the Independent Reporter. Responsibilities for delivery are shared between Network Rail (internal industry communications) and Sandwell MBC, who as the main party to the works are leading the external communications and in particular communications with the local press.
- 4.8.9 The Independent Reporter has been able to review web-based advanced information, including NRES ([www.nationalrail.co.uk](http://www.nationalrail.co.uk)) and train operator sites. All sites reviewed evidenced up to date information on the line closure and alternative travel provision. Reassuringly, all sites checked gave consistent information on journeys between London and Glasgow, directing passengers up the East Coast Main Line from Kings Cross (no doubt to the confusion of travellers who expected to travel from Euston on Virgin Trains).

## Wimbledon S&C

- 4.8.10 Wimbledon is rated as a high risk project from a communications viewpoint. Not only is there some delivery risk attached to the project, Wimbledon is a key point on the rail network; the possession, and any delay, has the potential to inconvenience a great number of people. As such, the External Communications Activity figure above suggests that as a minimum the following should be put in place:
- Project specific communications strategy;
  - Briefing of on-call and route teams;
  - Targeted approach to stakeholders;
  - Preparation of contingency plan for communications in case of overrun (to be led by Operations team);
  - Information on NRES;
  - Preparation of Q&A Brief;
  - Preparation of pre-agreed answers to media queries;
  - Liaison and if possible, joint planning with TOC(s) media team(s);
  - Media release;
  - Content on National Rail website;
  - National or regional general Bank Holiday awareness advertising;
  - Briefing to station staff.
- 4.8.11 The Independent Reporter's review took place relatively early on in the timeline for the development of communications for the Easter 2009 Bank Holiday. As such, the Independent Reporter has not been able to review those communications that would normally be released only shortly before the actual work takes place.

- 4.8.12 Network Rail was able to evidence a comprehensive project specific communications plan making reference to each of items 3-11. This was supported by supplementary evidence to suggest that implementation of the plan is well in hand. Evidence demonstrated that Network Rail is working closely with the TOC (South West Trains) on implementation of the plan. Evidence was also supplied to indicate that the briefing of on-call and route teams (item 2) and station staff (item 12) is also in place.
- 4.8.13 The plan was prepared and is being implemented by the Regional Public Affairs Manager (London and the South East) under the guidance of the central G&CA team. This, together with evidence of involvement of the Regional teams in preparation of communications of the Easter 2009 work answers concerns raised by the Independent Reporter in the Second Interim Report of January 2009 (Deliverable 2) with regard to the need to inculcate best practice beyond the central G&CA team.
- 4.8.14 As part of the process for Wimbledon, direct briefings have been given for key stakeholders, including local MPs. The Independent Reporter has seen evidence of direct contact between Network Rail and the local MP and takes this as illustrating one aspect of Network Rail's response to the comment from the Independent Reporter's January 2009 report which recommended them to consider what additional measures could be put in place to engage stakeholders.

## ERTMS

- 4.8.15 The location and limited passenger numbers on this route, together with the nature of the actual works have led this to be classified as low risk from a communications perspective. Communications are being handled through the regional team. Letters have been sent to local residents around the work site advising them that work is taking place. A check on the NRES website by the Independent Reporter showed that the engineering works and alternative transport arrangements have been programmed in. The Independent Reporter was however less than impressed by the journey option given by NRES which included a four hour wait on Machynlleth station from 0215 to 0615.<sup>28</sup>
- 4.8.16 This reflects one of the core issues faced by Network Rail and raised by the Independent Reporter in the Second Interim Report. In essence, Network Rail is only one part of a wider industry involved in the delivery of rail transport. As such, Network Rail cannot directly control the gamut of communications between customers and information providers which include not only train operating companies (TOCs) but also local authorities and others.
- 4.8.17 The Independent Reporter has not yet seen evidence of local posters and/or press releases that may be being produced for this project. It is expected that these would be no more than the standard for routine engineering works, given the risk profile of the site. However, the website of the Train Operator also carries information on the engineering work, suggesting that the standard engineering communications processes are in place and working.

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<sup>28</sup> Search on [www.national.rail.co.uk](http://www.national.rail.co.uk) for journey from Birmingham to Pwellhi on Saturday 11 April to arrive by 1630.

## Blackfriars (Thameslink Programme)

- 4.8.18 Thameslink provides a different context from Wimbledon in so far as the Easter Bank Holiday Possession work is part of wider and well publicised programme that already has a high level of awareness amongst the travelling public. The Thameslink Programme will see overnight closures and weekend possessions over the central London core route (St Pancras to Blackfriars) for much of the next three years (commenced mid December 2008). As such, standing arrangements are already in place to ensure that service changes, together with potential overruns and associated disruption to services are promptly and effectively communicated. The programme has a dedicated Network Rail communications team.
- 4.8.19 Communications are already covered by wider programmes including:
- Standing arrangements for briefing details of specific works to on-call and other teams;
  - Regular media and stakeholder work is undertaken on Thameslink Programme with direct co-operation between TOCS and Network Rail (including web copy, one to one visits, events, media calls and meet the manager sessions);
  - Communication with the travelling public (see below);
  - Arrangements for contingency planning, including standing procedures for implementation of Gold Command.
- 4.8.20 Communication with the travelling public is led by First Capital Connect (FCC), which has developed a stand-alone Thameslink Programme customer communications brand. This is built around a website [www.thameslinkprogramme.co.uk](http://www.thameslinkprogramme.co.uk) to which FCC directs customers through a range of other communications mechanisms, including SMS alerts, print material and radio advertising. Network Rail feed updated information into these mechanisms on a regular basis via both the project communications team, and, where appropriate, the Operations teams of both Network Rail and FCC.
- 4.8.21 Given the arrangements already in place, the G&CA team have designated the Easter works as low risk.
- 4.8.22 The Independent Reporter has been able to review a range of the measures in place for the wider communications including the programme website, a stakeholder briefing and a letter to MPs. The Independent Reporter is satisfied that the measures in place to communicate the Easter weekend work are sufficient.

## Great Eastern OLE Renewals

- 4.8.23 The location of this work which affects services between Liverpool Street and Ilford has led to its designation as high risk from the point of view of communications planning. As such, it can be expected that the plans put in place should be similar to those for Wimbledon (see above), whilst customised to the site. A project specific communications plan has been developed by Network Rail and viewed by the Independent Reporter. The plan contains amongst other things, evidence of liaison with the lead TOC leading to agreement on activities to be implemented and the responsible party; plans for stakeholder briefings; plans for media releases; NRES updates and so on. From the evidence seen, the Independent Report is satisfied that processes appropriate to a high risk communications site are in hand.

## National Campaign

- 4.8.24 The individual communications plans for each of the five sample projects should be seen in the context of the overall campaign that is being run by Network Rail to alert people to the need to check their journey details when travelling over Easter 2009. This is a major campaign, the strategy for which owes much to the learning gained by Network Rail both from and since the events of December 2007. In the process, the strategy has evolved from providing alerts for travellers to a more proactive information provision in order to help passengers make an informed choice in advance of their journeys.
- 4.8.25 Using the February 2008 Passenger Focus Report as its starting point, Network Rail has undertaken extensive research into the outcomes of its Easter, May, August and December 2008 campaigns to understand the extent to which those campaigns were effective in communicating the desired messages to Network Rail's target audiences. As noted in Deliverable 2, the Independent Reporter considers the approach Network Rail has taken to represent best practice in communications.
- 4.8.26 As a result, Network Rail now has a very clear definition of the aims of its campaigns, which include creating a general awareness of the need to check journey details if travelling over a bank holiday weekend and creating a greater empathy with the scale of what Network Rail does. In meeting these aims, Network Rail has three key messages: what will be happening; why engineering works are taking place and; how to minimise travel disruption.
- 4.8.27 Using the feedback from its 2008 campaigns, Network Rail has defined a communications strategy that is reaching more people in a more cost effective manner compared with previous years. Integral to the delivery of the strategy is National Rail Enquiries, both the website ([www.nationalrail.co.uk](http://www.nationalrail.co.uk)) and the national telephone enquiry number (08457 484950). These sites both meet the needs of the public, by providing national coverage of all TOCs, and the requirements of train operators that operators, not Network Rail, remain the focus of communications with rail customers.
- 4.8.28 The Easter 2009 strategy comprises a number of elements including press advertising, radio and digital media: content will direct people to NRES to check their travel details.
- 4.8.29 Media advertising will be supported by on-station material, general in nature, but advising people that "planned rail improvements" over bank holidays may impact on their travel and advising them to check their journey details on NRES.
- 4.8.30 Alongside the paid for activity, a comprehensive programme of public relations activity has been drawn up targeted at both national and regional audiences.
- 4.8.31 Supporting the public campaign, special briefings have been prepared for Network Rail station staff. The briefing process uses existing lines of communication, beginning with regular Station Manager meetings, to ensure that Network Rail's own customer interfacing personnel are fully briefed not only on what work is taking place but also the benefits it will deliver.
- 4.8.32 Whilst the timing of the Independent Reporter's review means that much material, by its nature, was not ready to view, or at least, not in its final, published version, the Independent Reporter has been able to view a range of plans, advertising material and evidence of briefings. This includes briefing materials to be used in staff briefings, visuals that will form the basis of advertising campaigns and draft press releases. It is the opinion of the Independent Reporter that the programme being implemented by Network Rail is a significant improvement over the January 2008 position.

## 5 Embedding the Improvements

### 5.1 Introduction

- 5.1.1 Network Rail has engaged in a significant change management exercise to identify and review best practice and to establish an “End to End” process through Wlv1 to establish a consistent methodology in planning and delivering possession works. Network Rail has undertaken initial briefing of both its business and supply chain throughout November and December 2008 to communicate the need for the consistent approach and its basic requirements.
- 5.1.2 The initial version of the Level 2 Work Instruction, WI9c(draft) was trialled during the Christmas 2008 possessions and Network Rail has demonstrated, by gathering feedback on its use, the initial steps to embedding the new Work instruction into its business and the supply chain.
- 5.1.3 In this section, the Independent Reporter reiterates recommendations made in his previous advice (Deliverables 1 and 2) that relate to embedment activities. In the Independent Reporter's opinion these embedment activities are essential to ensure that Network Rail's improvement measures benefit the railway in the future. However, given the time constraints placed on the implementation of Network Rail's Plan, these activities fall beyond the requirements of the Final Order.
- 5.1.4 In the First Interim Report (Deliverable 1) the Independent Reporter discussed the following points which were considered important in the embedment of the Network Rail's improvements:
- Integration of improvements;
  - Development of Key Performance Indicators;
  - Engagement of external stakeholders;
  - The maturity of Network Rail's improvements.
- 5.1.5 Network Rail's December 2008 Report outlined the high-level embedment plan under each of the key areas for further improvement. This consisted of:
- Further training and briefings as necessary;
  - Compliance audits against the Level 2 Work Instruction (Wlv1);
  - Reviewing and collating 'lessons' learnt from the trialling of WI9c(draft) over the Christmas 2008 possessions;
  - The ongoing collation of an Issues Log for WI9c(draft).
- 5.1.6 In the Second Interim Report (Deliverable 2) the Independent Reporter discussed the following aspects of embedding Network Rail's improvements:
- Values, culture and behaviours;
  - Christmas 2008 trial and formal approval of the Work Instruction;
  - Operational support structure;
  - Development of Level 3 Work Instructions; and
  - Key Performance Indicators.
- 5.1.7 Below, the Independent Reporter revisits the discussion in Deliverable 2 and provides a final view on Network Rail's proposed embedment activities.

## 5.2 Values, Culture and Behaviours

- 5.2.1 The communications workstream has stated an intention to review its best practice document 'communicating with external stakeholders' in June 2009 and January 2010. The development of a best practice guide has encapsulated the knowledge and learning in the team, and should help to embed this for the future. However, full embedment requires a sustained approach from Network Rail and is as much about management philosophy and approach as it is about processes. The Independent Reporter is confident that whilst the personnel in the communications team remain largely unchanged that this philosophy will be sustained. However, should staff turnover occur the Independent Reporter has not yet seen evidence that senior management will ensure the continuity of approach, for example, through encapsulating the principles in the company values, the setting of objectives for appropriate managers, continued focus through training and internal communications, and so on.
- 5.2.2 In most other improvement areas Network Rail's December 2008 report stated that the embedment period is stated to be the period between January and March 2009. The Independent Reporter is satisfied that Network Rail's embedment effort has been ongoing. In view of the possession audits discussed above Network Rail must sustain the embedment process. This is particularly relevant with the supply chain and the approach to risk management.
- 5.2.3 Network Rail undertook revisions to WI9c(draft) and is presently progressing Wlv1 through Network Rail standards approval (anticipated in September 2009). Issuing Wlv1 is not the end of embedment – embedment will only occur when Wlv1 becomes 'the way things are done'. This is particularly important where the success of the improvements is dependent not only on competent use of processes and tools but Network Rail's values, culture and behaviours. This is a particular issue in the successful application of risk management and construction management where key decisions require substantiated judgement. In the Independent Reporter's view compliance audits alone will not change the culture and behaviours in project delivery.
- 5.2.4 The Independent Reporter stated the following recommendation in the First Interim Report (Deliverable 1):
- "In its report at 31 December 2008 Network Rail should state the maturity of its improvement measures to provide a future means of determining whether or not they remain appropriate (particularly in view of the volume of enhancement work planned for Control Period 4) and also to ensure that adequate ongoing actions are implemented to embed the improvement measures fully."*
- 5.2.5 Whilst Network Rail recognised in its December 2008 Report that the maturity of the different improvement measures is at different levels at the end of 31 December 2008 it did not provide an assessment of what these levels or what 'embedment level' is sought. Until there is an attempt to define where Network Rail is and where it needs to get to, the plan for embedment must be considered a high-level draft. The components of the embedment plan are evident but more detail is now required.



Ref.	Secondary Observation	Embedment
15	Ongoing embedment activities have not been scheduled in detail by Network Rail.	
	IR Recommended Action	Responsible – Wlv1 owner
	Network Rail should review its embedment proposals to ensure that improvements are sustained over time to promote standard practice. "Training and the promotion of change through effective line management with increasing granularity and focus as time passes", ongoing support (for example from the Risk and Value Function) and compliance audit (no frequency or details are provided) require clearer definition.	

### 5.3 Formal approval of Wlv1

- 5.3.1 Network Rail's December 2008 report stated that the Work Instruction would become a Network Rail Company Standard in March 2009. The Independent Reporter understands that standard approval will now be achieved in September 2009.
- 5.3.2 Until then Wlv1 will remain draft but is mandated for use in Infrastructure Investment, Maintenance, Operations and Customer Services. The September 2009 approval timing does not detract from the implementation of the Plan by 31 December 2008. In the Independent Reporter's view the Christmas 2008 possessions were the only feasible opportunity to test the new processes and tools in the circumstances that they were designed to be used in. In the Independent Reporter's view Network Rail has used the Christmas 2008 to good effect in both revising WI9c(draft) to Wlv1 and providing clearer guidance in its use. The possession audits undertaken above should provide further opportunities for improvement.

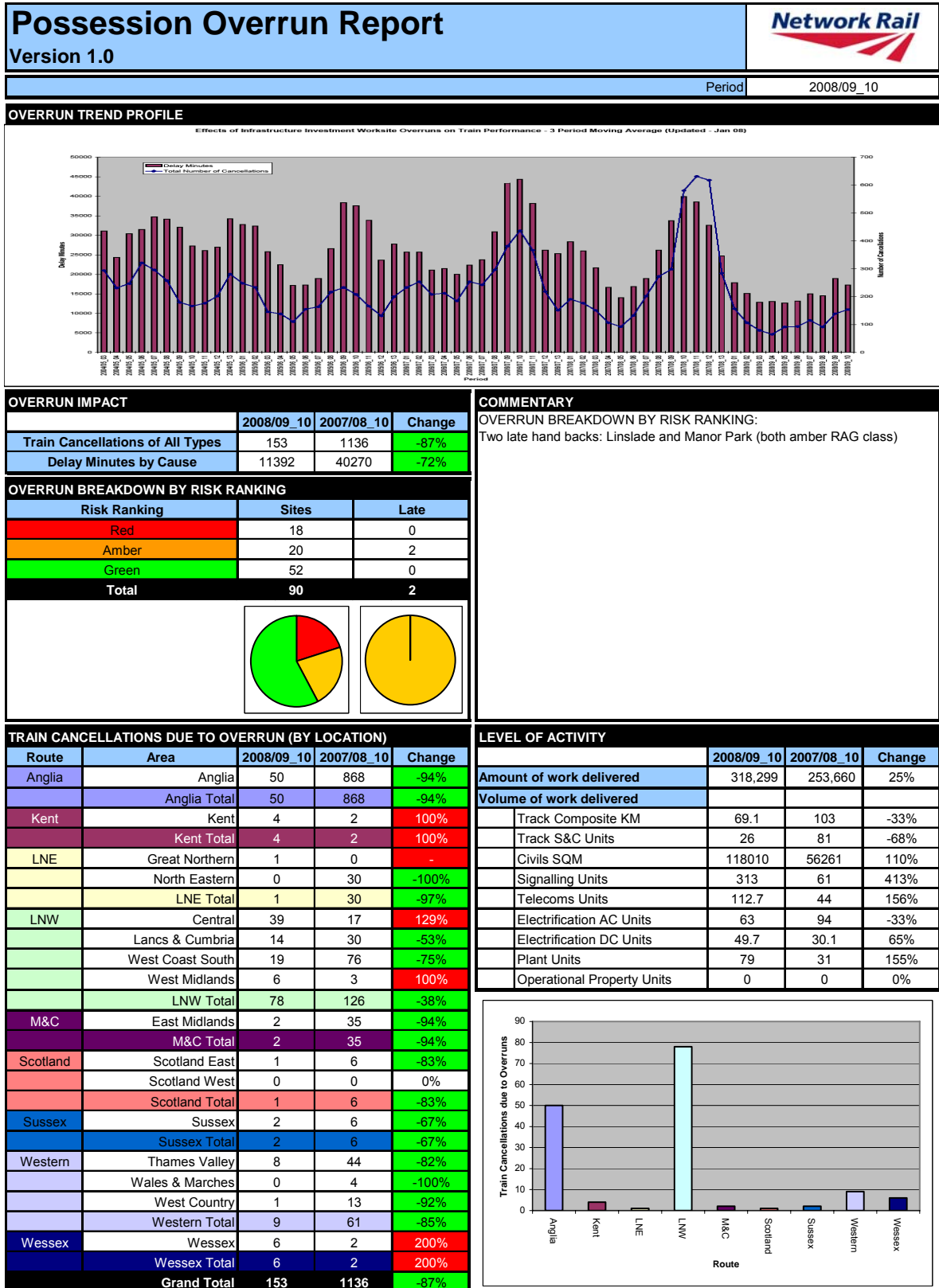
### 5.4 Development of Level 3 Work Instructions

- 5.4.1 The Network Rail December 2008 Report stated that "there is ongoing work to develop local Work Instructions which will sit as Level 3 Work Instructions and which will specify how the Level 2 Work Instruction [currently Wlv1] will be applied across different assets and programmes. It is anticipated that this work will be concluded in time to allow formalisation in March [2009]".
- 5.4.2 The Independent Reporter is supportive of Level 3 Work Instructions if their purpose is to provide 'specific interpretations' and guidance on how to comply with the Level 2 Work Instruction (currently Wlv1). A Level 3 Work Instruction would not be effective if it provided Assets, Programmes or Maintenance with diluted accountability or responsibility under the strict requirements of the Level 2 Work Instruction. The project possession audits revealed similar "End to End" processes in use by Network Rail in both track and signalling. These processes need to be re-aligned to demonstrate compliance with Wlv1.

### 5.5 Key Performance Indicators

- 5.5.1 As noted in the First Interim Report of 31 October 2008 (Deliverable 1), Network Rail's Plan stated that it would develop "performance indicators ...to demonstrate improvement from a baseline level of performance". In this regard Network Rail has started to record, and report to ORR on a 4-weekly basis the number of possessions which have either been cancelled, cut short, where diversions have occurred and those that have resulted in a change of origin of rolling stock.

5.5.2 Network Rail's December 2008 Report re-stated the position understood at 31 October 2008. Following the Independent Reporter's Second Interim Report (Deliverable 2) Network Rail has undertaken further work to develop its KPIs. Network Rail has provided the following output demonstrating train cancellations and delay minutes which suggests that possession delivery over Christmas 2008 was markedly better than Christmas 2007.



- 5.5.3 Although performance has improved Network Rail should consider how it is going to use the data collected to provide a review mechanism that will focus on the key reasons for any future train cancellations caused by possession issues. The Independent Reporter expects Network Rail to analyse the systemic and specific reasons for possession overruns on an ongoing basis and to continuously review and refine its implementation measures under the Plan and other processes to demonstrate continuous improvement. Network Rail should develop its proposals in this regard. In maintenance, Anglia has demonstrated the benefit of analysing possession overruns.

## **5.6 Observations in this Report**

- 5.6.1 Through the audit process the Independent Reporter has made a total of fifteen observations. Thirteen of these observations are secondary and two are good practice recommendations.
- 5.6.2 All of these observations are important. If they are not addressed Network Rail may become non-compliant against the requirements of Wlv1 in future. However, the Independent Reporter considers that none of the observations made detracts from the implementation of Network Rail's Plan at 31 December 2008.
- 5.6.3 Network Rail should remain ready to demonstrate to ORR that it has addressed these observations are being addressed in its ongoing embedment activities.

## 6 Conclusions

### 6.1 Overview

- 6.1.1 This report presents the Independent Reporter's final opinion on whether or not Network Rail has sufficiently implemented its Plan for Improving Project Delivery (the Plan) by 31 December 2008.
- 6.1.2 In arriving at a final opinion the Independent Reporter has undertaken five project possession audits and conducted further audits with Infrastructure Maintenance, Project Management Office and Government & Corporate Affairs. Throughout this process Network Rail has been committed and resourced to undertake the work necessary to introduce its improvement measures under the Plan.
- 6.1.3 Network Rail has devised and implemented an end-to-end solution which presents a robust framework of processes and tools which provide the basis for reducing late cancellations and the number of possessions that overrun causing consequential disruption. The mandatory use of the draft Work Instruction "Delivering Work Within Possessions" from 1 January 2009 and the initial briefing and training of Network Rail staff and suppliers may be considered a significant effort in change management.
- 6.1.4 The Independent Reporter is satisfied with the progress made by Network Rail but has noted a number of specific observations and recommendations which should be considered in the embedment of the Work Instruction. The Work Instruction (currently Wlv1) will be formally approved in September 2009.

### 6.2 Supplier Management

- 6.2.1 Prior to commencing the development of the Level 2 Work Instruction (Wlv1) Network Rail commenced the development of its new Gateway approach to defining contract strategies, defining tender criteria and awarding contracts to the supply chain.
- 6.2.2 In view of the timing of this initiative in comparison with the introduction of Wlv1 and the available audit period to the Independent Reporter it was anticipated that limited evidence of the Gateway process compliance would be found. This has been proven in relation to the definition of contract strategies however the Independent Reporter was satisfied to note a high level of awareness of the Gateway processes and implementation where it was possible.
- 6.2.3 A range of financial risk/reward mechanisms was observed placing different levels of risk on the supply chain for the late cancellation of possession and possession overrun. A clear rationale was evident in each case. A contractual approach is one device to incentivise contractors not to cause disruption. Wlv1 provides a management approach which, with the supply chain's support, should improve the baseline position that was previously observed.
- 6.2.4 A general observation across all project possession audits was that each project team had to specifically brief and request the assistance of the supply chain to comply with Wlv1. In practice this involved requesting schedules, resource data and attendance of contractors at QSRA's and input to contingency planning. None of these items should be considered out of scope for any contractor but it is recognised that some contracts will make specific provisions (for example, the provision of schedules) that may fall outside the definition of the input required to fulfil the requirements of Wlv1. This issue may recede once Wlv1 becomes a Network Rail Company Standard in September 2009. In the interim Network Rail must continue to take appropriate steps with its supply chain to ensure that it receives the necessary input to maintain compliance with Wlv1.

- 6.2.5 General compliance with s.6.5 – Defining and Expediting Scarce and Critical Resource – has been demonstrated by Network Rail but generally confirmation of Critical and Scarce Resource bookings has been later than T-6 as required by Wlv1. The T-6 requirement appears to exist to inform Go / No Go decisions at T-4. Network Rail should review the obligations of its exiting supply chain and revise its requirements as necessary to align obligations with the requirements of Wlv1.
- 6.2.6 The Tipton audit demonstrated the necessity and value of appointing a Resource Expeditor for third party possessions. The current version of Wlv1 does not require the application of s.6.5 to third party schemes. Wlv1 should be amended to require third party schemes to apply the requirements of s.6.5.
- 6.2.7 Some forms of contract (fixed price) may not entitle Network Rail see the price paid by a contractor for its resources. Confirmed orders for resources may contain sensitive price data which may prevent Network Rail from receiving assurance that resources are in fact booked. Network Rail should observe and address any issues arising in this regard. This may require alternative administrative confirmation for the booking of Critical and Scarce Resources where they are viewed as a constraint to the delivery of a possession.
- 6.2.8 Progress in identifying, profiling and securing OLE resource is evident to the Independent Reporter. However, this resource would appear to remain a constraint. Whilst Network Rail develops its OLE Competency Standard it remains dependent on its supply chain to confirm the competency of OLE resources and remains at risk of shortfall of this important resource. At peak periods of demand (which Network Rail is now in a position to quantify) it should take sufficient precautions including, where necessary, implement any necessary training. Great Eastern has demonstrated that the latter has been undertaken.
- 6.2.9 A number of general and specific observations have been made in this report in respect of supplier management. The Independent reporter is satisfied that Network Rail should be able to address these as part of the ongoing embedment of its Plan through Wlv1.

### **6.3 Risk Management**

- 6.3.1 The successful application of risk management is central Network Rail's improvement of delivery of possession work. The baseline position presented a very mixed picture of practice despite risk management tools and processes existing under Network Rail's GRIP framework.
- 6.3.2 Wlv1 places the customer – not just works delivery – at the forefront of consideration for possession planning. The assessment of work site complexity (s.6.6 RAG assessment) requires consideration not only of the technical complexity of the works, but consideration of the impact on customers and Network Rail's corporate image. The Independent Reporter was satisfied with the RAG assessments undertaken but would note that Network Rail should address the various approaches taken to recording the assessments.
- 6.3.3 QSRA can only be successfully undertaken if valid inputs exist. A key input is the availability of a competent integrated schedule (s.6.7 Creating an Integrated Work Plan). Some of the possessions audited were slow to develop a competent schedule. It is likely that the timing of the audits in relation to the mandated use of Wlv1 was partly the cause for this.

- 6.3.4 However, the Independent Reporter suggests that some of the delay was probably caused by reluctance on the part of the supply chain in respect their contractual obligations in respect of schedules. This appears to have prevented the competent production of Integrated Work Plan (IWP) schedules in accordance with the timescales required by Wlv1. This has generally resulted in the late production of the QSRA leaving less time to address any issues arising. Current and future obligations in contract documentation should be reviewed and, where necessary, changed to reflect the requirements of Wlv1. The Independent Reporter considers that contractor input to the QSRA process is a key ongoing embedment activity.
- 6.3.5 Misalignment between existing 'Level 3' processes (for example Track Renewals "End to End" process and a similar approach adopted by the signalling contractor on Blackfriars) were in evidence which prevented the competent production of IWP schedules in accordance with the timescales required by Wlv1. This contributed to the late production of QSRA. Existing Level 3 processes should be reviewed and revised to align with the requirements of Wlv1.
- 6.3.6 Once undertaken the standard of QSRA (s.6.10 Quantitative Schedule Risk Assessment) was generally acceptable. The QSRA template might be enhanced to increase the ownership of QSRA by project managers and to improve visibility that QSRA actions have in fact been closed. Project managers should be signatories to the QSRA. The QSRA should undergo final sign-off to confirm that all actions have been addressed and the analysis remains valid at the time of the possession.
- 6.3.7 Contingency planning (s.6.8) was generally executed well. Great Eastern appeared to present a particular challenge to Network Rail which led to both Great Eastern and another project being identified as the Lead Projects for the same possession. This may cause confusion for Infrastructure Control Group should both projects report progress simultaneously. This appeared to be a particular issue which should not point to a wider problem. However, the situation should be reviewed and understood for future application.
- 6.3.8 In general Risk Readiness and Risk Deliverability Reviews (s.6.9) were appropriately executed although the Independent Reporter would encourage Network Rail to devise a standard and efficient means by which projects can assess and record progress from one review to the next. One project team devised a simple spreadsheet to assist with this which would maintain the robustness of the process but cut down on administrative effort.
- 6.3.9 Portfolio readiness reviews (s.6.11) and the general administration of Wlv1 have been successfully transferred into the ownership of Network Rail's Programme Management Office (PMO). PMO administers Network Rail's Infrastructure Investment executive level reviews which have been evidenced in operation for both Easter and May 2009 bank holiday weekends.
- 6.3.10 Following on from PMO's successful mobilisation of its team and controls to administer the overall readiness review process, the following items should be addressed in order to embed a robust and efficient process:
- Some of the possessions audited were not clear on their status as Lead Project. This would appear to have been a mobilisation issue with the introduction of the Work Instruction on 1 January 2009;
  - It is not evident what executive level reviews are undertaken outside peak periods (Christmas and bank holidays). There is the potential for Red or Amber rated possessions to occur at any time;
  - Confirmation of Critical and Scarce Resource by T-6 for Easter 2009 was largely unrecorded at T-3. Projects were stated as 'Go' in the absence of this data;

- Configuration of Site Reporting Tools (particularly Type 2) appears to have been an issue for most projects audited;
- Projects claim that placing 'readiness evidence' on CCMS has been time-consuming. It is noted that not all functions within Network Rail have CCMS access.

6.3.11 Network Rail PMO should continue to review the embedment of its processes following the experience of Easter 2009 to ensure both efficient and robust delivery. The observations stated above should be addressed.

## 6.4 Site Management

6.4.1 Network Rail has sought to strengthen its site management processes primarily through strengthening the competence of its construction management personnel and the development of consistent reporting methodologies.

6.4.2 The Independent Reporter was generally satisfied with the level of compliance demonstrated during the audits but notes that the following issues require further consideration during embedment:

- The configuration and user-friendliness of Type 2 monitoring tools;
- The use of contractor staff in the role of Network Rail Construction Management Resource.

6.4.3 From the site audit of Tipton and the audit of Infrastructure Group Control the Independent Reporter is content that the processes, tools and understanding are now established to enable Network Rail to communicate progress from site in a clear and consistent manner.

## 6.5 Maintenance

6.5.1 Through the development of Wlv1 Network Rail has sought to extend its efforts beyond addressing the shortfalls in delivering project possessions to maintenance possessions.

6.5.2 Key sections of Wlv1 are applicable to Infrastructure Maintenance possessions. Network Rail has undertaken an extensive trial of a Level 3 Work Instruction on the Anglia route which provides the basis of a generic Level 3 Work Instruction that should allow maintenance to comply with Wlv1. This is due for issue at the end of April 2009.

6.5.3 Maintenance possessions overrun more frequently than project possessions but it is understood that the individual impact of the latter is much more significant. Addressing the former is a key remaining area for Network Rail in implementing Wlv1 across its business. The Independent Reporter considers that Network Rail has made enough progress with this that this should not detract from the removal of the Final Order.

## 6.6 Communications

6.6.1 Communications emerged as a key issue in the ORR's investigation into the December 2007 engineering overruns. Communications as a process runs parallel to and is interwoven with the entire infrastructure project production process, from possession planning and development through to implementation and completion. As such, it runs both separately to the project delivery processes outlined in Wlv1 and connects with them at key stages of the planning process.

- 6.6.2 Through the audits, the Independent Reporter was satisfied to see that Network Rail has applied its Best Practice Guide – External Communications, Major Improvement Work (Bank Holidays), developed by Network Rail's Government and Corporate Affairs (G&CA). This should ensure that Network Rail's communications with key stakeholders is presented at a consistent and high level. However, the Independent Reporter notes that Network Rail is not the sole communicator of its works to the travelling public and the co-operation of other industry stakeholders is necessary to achieve consistent approach overall.
- 6.6.3 The audits also explored the link between the carrying out of RAG reviews under Wlv1 and communications, including evidence of the designing of communications strategies appropriate to the risk levels of the work being undertaken. This revealed that Network Rail's G&CA team occasionally took decisions to heighten or reduce the level of communications depending on its own assessment of the risk presented. It is noted that G&CA are actively involved in the Portfolio Delivery Review process.

## 6.7 Embedment

- 6.7.1 Embedment measures are discussed in the Network Rail December 2008 Report at a high-level. The Independent Reporter acknowledges that Network Rail collated and reviewed the lessons from the Christmas 2008 possessions and this has contributed to the revision of draft Work Instruction. However, the embedment plan could still be improved in detail. Network Rail has introduced a number of changes simultaneously which will require time and continued effort to embed.
- 6.7.2 Initial review of cancellations and overrunning possessions data suggests that the Christmas 2008 possessions were a marked improvement on the previous year. The Independent Reporter considers that the KPIs should be developed to ensure that reasons for recorded KPI performance (good or bad) are understood.
- 6.7.3 The observations and recommendations in this report point to both specific and general issues that do require attention to ensure that Network Rail does not become non-compliant with Wlv1. However, none of these is significant enough to detract from the removal of the Final Order.
- 6.7.4 Network Rail should remain ready to demonstrate to ORR that it has addressed these observations and they are being addressed in its ongoing embedment activities.



## **7 Independent Reporter's Opinion on Network Rail's Compliance with the Final Order**

- 7.1.1 In the Independent Reporter's opinion Network Rail has met the requirements of ORR's Section 55 Order, Issued 22 April 2008.

## 8 Appendix A – Text of the Section 55 Order

**Bill Emery**  
**Chief Executive**  
Telephone 020 7282 2006  
Fax 020 7282 2043  
E-mail bill.emery@orr.gsi.gov.uk



*22nd*  
22 April 2008

Iain Coucher Esq  
Chief Executive  
Network Rail Infrastructure Limited  
40 Melton Street  
London  
NW1 2EE

Dear Iain

### **FINAL ORDER FOR CONTINUING BREACH OF CONDITION 7**

1. We wrote to you on 28 February 2008 informing you of our findings and enclosing details of our decisions and the reasons for them, including the relevant orders and notices following our investigation into the overruns over the Christmas/New Year period at Rugby, Liverpool Street Station (London) and Shields Junction (Glasgow). We issued a notice which described ORR's intention to make a final order in relation to the continuing breach of condition 7 of your network licence and attached a copy of the draft proposed order.
2. We received representations from you on 31 March 2008 regarding the proposed final order. In the representations, you requested that the date for delivering the plan to ORR, referred to in the order, be amended from 31 May 2008 to 30 June 2008. You stated that the reason for the proposed modification was to ensure not only that you had adequate time to prepare the plan for consultation, but also that your consultees had adequate time to consider the consultation and respond to it.
3. We received no other representations.
4. We have considered your representations and agree to the modification you proposed. We consider that this modification allows more time for those who have suffered or are suffering as a result of the breach to be consulted. It does not alter the date by which you have to implement the plan, which remains 31 December 2008. We are also not aware of any party which would be disadvantaged by the modification. We have treated your representation dated 31 March 2008 as consent to the modification, in accordance with section 56(3)(a) of the Railways Act.
5. We have therefore made the final order described in the notice published on 28 February 2008 with the modification referred to above. I enclose the order.



Page 1 of 2  
Doc # 307273.01

Head Office: One Kemble Street, London WC2B 4AN T: 020 7282 2000 F: 020 7282 2040 [www.rail-reg.gov.uk](http://www.rail-reg.gov.uk)



6. A copy of this letter and of the order will be published on our website.

Yours sincerely

A handwritten signature in black ink that reads "Bill Emery". The signature is written in a cursive style with a long vertical stroke extending downwards from the end of the name.

**Bill Emery**



**RAILWAYS ACT 1993 (as amended)**

**SECTION 55**

**FINAL ORDER**

- A. The Office of Rail Regulation ("ORR") is satisfied that Network Rail Infrastructure Limited ("Network Rail") is contravening Condition 7 of its network licence.
- B. Having had regard to section 55(1) of the Railways Act 1993 as amended (the "Act"), ORR considers it is requisite for it to make a final order for the purpose of securing Network Rail's compliance with Condition 7.
- C. ORR is satisfied that:
- (a) the duties imposed on it by section 4 of the Act do not preclude the making of this order; and
  - (b) the most appropriate way of proceeding is not under the Competition Act 1998.
- D. ORR need not consider, under section 55(5B) of the Act, the appropriateness of making this order because:
- (a) ORR is not satisfied that Network Rail has agreed to take, and is taking, all such steps as appear to ORR for the time being to be appropriate for Network Rail to take for the purpose of securing or facilitating compliance with Condition 7; and
  - (b) ORR is not satisfied that the contravention will not adversely affect the interests of users of railway services or lead to an increase in public expenditure.

Doc # 307449.01

- E. ORR gave notice under section 56 of the Act of its proposal to make the order<sup>1</sup> and has taken into consideration all representations made in relation to the proposed order.

**Therefore:**

1. In respect of the contravention, pursuant to section 55 of the Act, ORR requires Network Rail to:
  - (a) produce and deliver a plan to ORR by 30 June 2008, on which it has consulted its customers, relevant funders, Passenger Focus and London TravelWatch, which:
    - (i) demonstrates how Network Rail will implement measures to the greatest extent reasonably practicable, including procedures and training, to ensure that its planning and execution of projects for the renewal, replacement, improvement, enhancement and development of the network which require possessions will be undertaken in an efficient and economic manner and in accordance with best practice ("the Measures"); and
    - (ii) sets out clear milestones showing how Network Rail will implement the Measures; and
    - (iii) demonstrates that particular attention has been paid in the Measures to addressing weaknesses in Network Rail's risk management, supplier management, site management and communications with train operators and rail users;

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<sup>1</sup> [http://www.rail-reg.gov.uk/upload/pdf/280208\\_section\\_56\\_notice.pdf](http://www.rail-reg.gov.uk/upload/pdf/280208_section_56_notice.pdf)



- (b) by 31 December 2008, have implemented the plan and have delivered a report to ORR which demonstrates why it is satisfied that the plan has been implemented.
- 2. This document constitutes a final order made under section 55 of the Act.
- 3. This order shall have immediate effect.

A handwritten signature in black ink that reads 'Bill Emery'. The signature is written in a cursive, slightly slanted style.

**Bill Emery**

**Chief Executive of the Office of Rail Regulation**

**22 April 2008**

## 9 Appendix B – Glossary

Term	Term Meaning / Definition
C&P	Network Rail Commercial and Procurement
December 2008 Report	Network Rail's Report dated 23 December 2008 in response to the Final Order's requirement that Network Rail provide a report to ORR by 31 December 2008 demonstrating why Network Rail believes it has complied with the requirements of the Final Order.
FOC	Freight Operating Company
GRIP	Guide to Railway Investment Projects
G&CA	Network rail Government and Corporate Affairs
II	Network Rail Infrastructure Investment
IGC	Infrastructure Group Control
ISC	Infrastructure Support Centre
MAPR	Monthly Action plan Review
NDS	National Distribution Service
OLE	Overhead Line Equipment
The Plan	Network Rail's Plan of June 2008 detailing its objectives and approach to improving processes and people in the areas of supplier management, risk management, site management and communications.
PMO	Network Rail's Programme Management Office
QSRA	Quantified Schedule Risk Assessment
RAG	Red / Amber / Green
S&C	Switches and Crossings
S&T	Signalling and Telecoms
TEM	Tender Assessment Model
TOC	Train Operating Company
WI9c(draft)	Draft Work Instruction "Delivering Work Within Possessions", Revision 9c, 5 December 2008 and mandated for use from 1 January 2009.
WIv1	Draft Work Instruction "Delivering Work Within Possessions", Version 1, 13 February 2009.