

Independent Reporter A
Project Monitoring 2005/06
Final Report

Halcrow Group Limited

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Independent Reporter A

Project Monitoring 2005/06

Final Report

Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Date	Initial
0	4	Draft Report	09/10/06	DJM
1	0	Final Report	08/12/06	DJM

1 Executive summary

1.1 Introduction

- 1.1.1 This is the first year of project monitoring by the Independent Reporter, work having commenced in January 2006. This report covers the financial year 2005/06. Separate reports are produced for projects/ programmes monitored at completion or on an on-going basis.
- 1.1.2 The aim of annual project monitoring is:
- (a) To give a comparison of planned expenditure and full-year forecast expenditure in total for the financial year and an explanation of any variance;
 - (b) To give a comparison of planned outputs with actual outputs for the financial year and an explanation of any variance.
- 1.1.3 The following projects/ programmes comprise the scope of this report:
- (a) Fixed Telecom Network/ GSM-R;
 - (b) Access for All;
 - (c) National Pollution Prevention Programme;
 - (d) Southern New Trains Programme;
 - (e) Self-Financing Commercial Projects;
 - (f) Network Rail Discretionary Fund.
- 1.1.4 In conducting our reporting activity we have identified a number of underlying issues which we believe need to be addressed if the delivery of projects/ programmes is to be improved. Resolution of these issues would also improve Network Rail's efficient and effective delivery of projects/ programmes. These are identified in the report and summarised in an Appendix.

1.2 Fixed Telecom Network/ GSM-R

- 1.2.1 We have monitored the 2005/06 financial and output variances for FTN/GSM-R. The reporting processes of the programme are clearly defined and appear to be robust. There is a shortfall in outputs versus the baseline schedule and expenditure versus the budget and ACR2003 provision but analysis of unit costs and the Schedule Performance Index (SPI) at year end indicates that the teams are delivering at or above the level of efficiency planned. This programme is using the project management tools we would expect to find in a programme this large.

1.3 Southern New Trains Programme

- 1.3.1 We have monitored the 2005/06 financial and output variances for the Power Supply Upgrade (PSU) works; we have only reviewed the financial variances for Non-PSU works. There is a significant difference between the budget and ACR2003 provision due to re-phasing of the work to deliver considerable efficiencies. There is a shortfall in outputs versus the baseline schedule and a minor overspend (in percentage terms) versus the budget.

1.4 National Pollution Prevention Programme

- 1.4.1 We have monitored the 2005/06 financial variances for the NPPP works which shows a small underspend. There appears to be an issue with the financial variance categorisation. We have not been able to review the output variances as the reporting processes do not include baselined output Key Performance Indicators (KPIs). Definitive statements regarding on-going efficiency are not possible as no unit cost, CPI or SPI statistics were reported.

1.5 Access for All

- 1.5.1 We have monitored the 2005/06 financial and output variances for Access for All. The reporting processes of the programme were evolving in 2005/06 given the early stage of the programme. Definitive statements regarding reporting and on-going efficiency are not possible due to the early stage of the programme.

1.6 Network Rail Discretionary Fund

- 1.6.1 Network Rail has made progress, putting in place the mechanisms to control the identification and evaluation of schemes which can meet the criteria before going forward for delivery. As the NRDF funding was agreed during the 2005/06 year expenditure of the full year funding of £50m was not possible; however, the underspend will be rolled forward for future years. The reporting processes of the programme were evolving in 2005/06 given the early stage of the programme. Definitive statements regarding reporting and on-going efficiency are not possible due to the early stage of the programme.

1.7 Self-Financing Commercial Projects

- 1.7.1 We have monitored the 2005/06 financial and output variances for the commercial property projects. There was a significant underspend in enhancements due to difficult market conditions and a reorganisation. The incremental income and net present value of the completed portfolio were on budget. We have not been able to review the output variances as the reporting processes do not include baselined output KPIs. Definitive statements regarding the efficiency of work delivered are not possible as no unit cost, CPI or SPI statistics were reported.

1.8 Reporter's scrutiny and opinion

- 1.8.1 We confirm that, in our opinion, the reported information is a reasonable representation of performance and data has been properly prepared and reported in accordance with agreed procedures, except as noted in our report commentaries.

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3 Introduction

3.1 Background

- 3.1.1 As part of the Office of Rail Regulation's Periodic Review of Network Rail's Access Charges for Control Period 2 (2000/01-2005/06), a number of changes were implemented to improve information reporting arrangements through modifications to Network Rail's network licence. These changes included a requirement to appoint Reporters (chosen by the Regulator in consultation with Network Rail) to provide an independent assessment of the robustness of Network Rail's information submissions.
- 3.1.2 As Reporter A, Halcrow was previously responsible for reporting on part of Network Rail's Annual Return (shared with Reporter B, Mouchel Parkman) and Network Rail's Asset Register. Reporter B was also responsible for Reporting on WCRM Project. This contract was for October 2002 – November 2005.
- 3.1.3 Halcrow has been appointed to Parts A and D of the new contract. The contract is for December 2005-December 2008, with an option for two extensions of one year. The Reporters and their loci of responsibility are shown in the Figure 3.1.1 below.

Contract Schedule/ Responsibility	Reporter
Part A: Annual Return	Reporter A (Halcrow)
Part B: Information Network	Reporter C (Scott Wilson)
Part C: Asset Management	Reporter D (AMCL)
Part D: Major Projects	Reporter A (Halcrow) ¹

Figure 3.1.1 Allocation of Reporting Role to Reporters

3.2 This report

- 3.2.1 This report is Reporter A's Interim Annual Report on Network Rail's 'major projects' subject to on-going monitoring in 2005/06.
- 3.2.2 A programme of monitoring was scoped in association with Network Rail and Office of Rail Regulation in January and February 2006 and remains under development. Monitoring was undertaken using this emergent programme on an ad hoc basis to April 2006 so that data could be collected for this first Annual Report.
- 3.2.3 The aim of annual project monitoring is:
- (a) To give a comparison of planned expenditure and full-year forecast expenditure in total for the financial year and an explanation of any variance;
 - (b) To give a comparison of planned outputs with actual outputs for the financial year and an explanation of any variance.
- 3.2.4 In order to gain the most value from the monitoring programme, the scope of monitoring and data requests were developed by our reporting team in advance of meetings with the project/programme teams. This monitoring plan was subject to change during the collection period for this first Annual Report, and subsequently, due to the different styles and contents of the internal and external reporting documentation produced by each Network Rail project/ programme team.

¹ Reporter B (Mouchel Parkman) retains WCRM monitoring to Nov-2006.

3.2.5 The remainder of this report comprises individual sections providing analysis and commentary on each project/ programme monitored in 2005/06 on an annual basis. Separate reports are produced for projects/ programmes monitored at completion or on an on-going basis.

3.3 Scope

3.3.1 The following projects/ programmes comprise the scope of this report:

- (a) Fixed Telecom Network/ GSM-R;
- (b) Southern New Trains Programme (SNTP);
- (c) National Pollution Prevention Programme (NPPP);
- (d) Access for All;
- (e) Network Rail Discretionary Fund (NRDF);
- (f) Self-Financing Commercial Projects.

4 Project Monitoring: Analysis & Commentary

4.1 Fixed Telecom Network/ GSM-R

Scope

- 4.1.1 In outline, the programme team is responsible for:
- (a) Renewal of the Fixed Telecommunications Network (FTN). FTN is the basic telecommunications network that supports Network Rail's operational and business requirements. The renewals are driven by system condition, reliability and equipment obsolescence.
 - (b) Installation of a new digital radio system using the global system for mobile communications for railways (GSM-R) protocol that will provide secure voice and data communication across the entire rail network and replace existing radio networks, including the National Radio Network (NRN) and Cab Secure Radio (CSR).

Financial Variance

4.1.2 Figure 4.1.1 shows the financial provision made by ORR in Access Charges Review 2003 was £165m.

£m	2004/05	2005/06	2006/07	2007/08	2008/09	Total
ACR2003	194	165	216	212	12	800

Figure 4.1.1: ACR2003 Final Conclusions for FTN/ GSM-R

4.1.3 The start of year budget for 2005/06 was £166.4m, comprising £151.5m renewals and £14.9m enhancements; rebasing for 2005/06 prices accounting for the difference.

4.1.4 Analysis of the 2005/06 financial variance (full-year forecast versus current budget) is shown in Figure 4.1.2 and Figure 4.1.3. The total renewals variance reported for 2005/06 is £54m underspend, representing 35.6% of the start of year renewals budget.

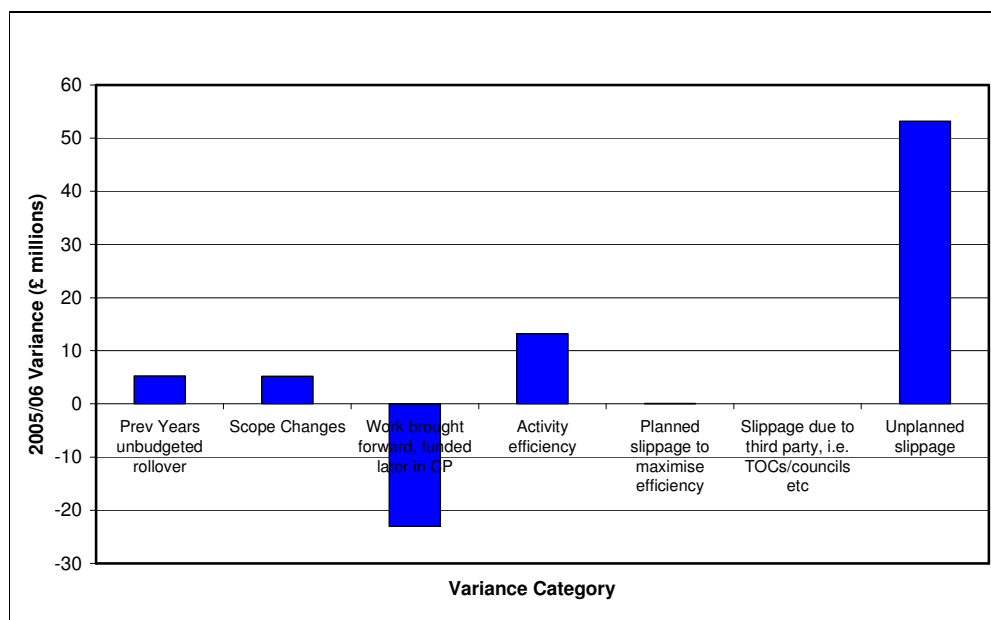


Figure 4.1.2: Analysis of FTN/GSM-R renewals variance 2005/06 (full-year forecast versus budget; positive variance is underspend)

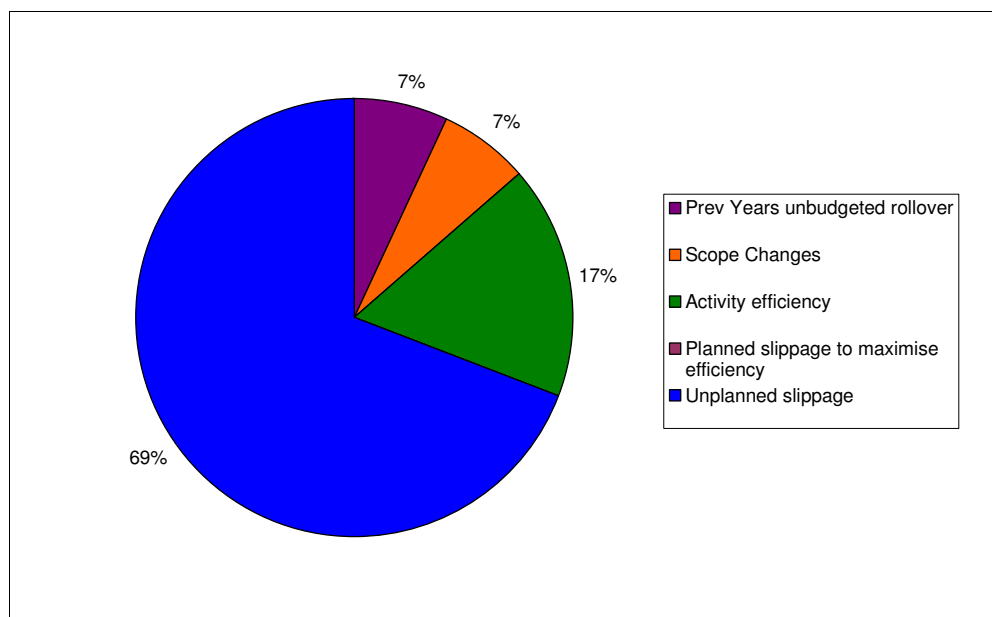


Figure 4.1.3: Analysis of FTN/GSM-R renewals underspend 2005/06 (full-year forecast versus budget)

- 4.1.5 69% of renewals underspend is due to £53.2m Unplanned Slippage, dominated by:
- £2.3m slippage in the recruitment profile; 72 authorised vacancies and 3 vacancies on hold for an establishment of 302 caused a 25% vacancy gap;
 - £5.3m of delays in construction programme due to slower resourcing of the South team than planned;
 - £17.8m contingencies deferred to future years due to programme slippage;
 - £18.6m of works transferred to MP&I for delivery in association with other works (Synergy Schemes) were not flexed to MP&I by year end.
- 4.1.6 17% of renewals underspend is due to £13.2m of activity efficiencies, which were dominated by £11.7m of efficiency delivered by National Telecoms Programme North. Routework costs of as low as £20 per metre were achieved against an average budget of £31 per metre. The efficiencies were mostly driven by improved commercial management (fixed price, lump sum contracts) and a better route condition than was anticipated in the budget estimate.
- 4.1.7 A £5.2m renewals underspend associated with scope changes comprised:
- £5.2m decrease due to construction changes to meet the requirement to use type-approved products;
 - £1.8m decrease (comprising £1.3m overspend and £3.0m underspend) due to changes in the scope of works transferred to MP&I for delivery in association with other works (Synergy Schemes);
 - £1.8m increase due transfer of funding to HQ Telecoms for the GSM-R licence to enable transmission to commence.

Output Variance

- 4.1.8 The physical works to be undertaken in 2005/06 comprised:

- (a) Routeworks undertaken by Scotland, North and South teams, incorporating survey, design and laying of fibre optic and copper cabling in either existing or new troughing or ducts;
- (b) Node works undertaken by Scotland, North and South teams, comprising installation of core and access nodes, associated housings (TEH, buildings, REB), UTX and power supplies;
- (c) The cab mobile trial at Strathclyde;
- (d) The initial trial of FTN to support SSI Signalling;
- (e) Central development and support activities, including work associated with migration of circuits/ PDH networks.

4.1.9 Figure 4.1.4, Figure 4.1.5 and Figure 4.1.6 show physical progress for the Cab mobile/ Strathclyde trial, Routeworks and Node works respectively. The initial trial of FTN to support SSI Signalling was successfully completed at Coatbridge during 2005/06 (P9).

Cab mobile/ Strathclyde trial	Total to complete (units)	Baseline to YE2005/06 (units)	Actuals to YE2005/06 (units)	Complete YE2005/06 (%)	Variance full- year forecast/ plan (%)
Surveys (test train & vehicles)	8	8	5	63%	-38%
Surveys (First of Class)	120	116	84	70%	-28%
Cab Radios Pilot	59	0	0	0%	n/a
Cab Radios Extended Trial	82	0	0	0%	n/a
Cab Radios 1 st of Class	99	0	0	0%	n/a

Figure 4.1.4: Progress for FTN/GSM-R Cab mobile/ Strathclyde trial (negative variance is under-delivery)

Route works	Total to complete (km)	Baseline to YE2005/06 (km)	Actuals to YE2005/06 (km)	Complete YE2005/06 (%)	Variance full- year forecast/ plan (%)
Survey	7,018	6,117	5,998	85%	-2%
Design	6,622	5,601	5,476	83%	-2%
Super Armour Cable	370	497	367	99%	-26%
Fibre in existing trough	3,141	2,440	2,563	82%	+5%
Copper in existing trough	2,032	2,023	1,810	89%	-11%
Fibre & Copper in existing trough	551	200	157	28%	-22%
Fibre in new trough	92	79	73	79%	-8%
Copper in new trough	283	144	97	34%	-33%
Fibre & Copper in new trough	386	119	152	39%	28%
Fibre in Duct	298	298	298	100%	0%
Copper in Duct	88	85	88	100%	+4%
Fibre & Copper in Duct	60	42	32	53%	-24%

Figure 4.1.5: Progress for FTN/GSM-R Routeworks (negative variance is under-delivery)

Node works	Total to complete (units)	Baseline to YE2005/06 (units)	Actuals to YE2005/06 (units)	Complete YE2005/06 (%)	Variance full-year forecast/plan (%)
Co-located sites	670	290	148	22%	-49%
Core Nodes – Sites	77	37	7	9%	-81%
Core Nodes – Buildings	3	2	2	67%	0%
Access Nodes – TEH	212	96	45	21%	-53%
Access Nodes – Buildings	4	2	2	50%	0%
UTX/ URX	353	132	7	2%	-95%
REB/ Tails	858	231	122	14%	-47%
Tunnels	57	23	9	16%	-61%
PES	885	337	132	15%	-61%

Figure 4.1.6: Progress for FTN/GSM-R Node works (negative variance is under-delivery)

- 4.1.10 As the Figures show, physical progress is mostly behind the baseline schedule:
- Surveys for the fitment of cab mobile units is progressing but show shortfalls against baseline, particularly 32 (28%) first of class surveys;
 - Route works are behind baseline by 119km (2%) for surveys, 125km (2%) for design, 130km (26%) for super armour cabling and 213km (11%) for copper cabling in existing troughing but ahead of schedule by 123km (5%) for fibre optic cabling in existing troughing;
 - Node works show significant shortfalls, e.g. 125 (95%) shortfall against baseline for under track crossings; however, the larger work volume associated with a smaller number of individual node works means that reporting is less sensitive than for routeworks as partially complete works are not reported.
- 4.1.11 The different teams show different levels of schedule performance:
- The Cost Performance Index² for the construction teams shows that all were delivering value against plan at year end (Scotland = 1.00; North = 1.46; South = 1.25);
 - The Schedule Performance Index³ for the construction teams shows Scotland and North were significantly better than South at year end (Scotland = 1.20; North = 1.07; South = 0.43); this is largely due to resourcing issues in the South.

² CPI is BCWP/ ACWP (budgeted cost of work performed divided by full-year forecast cost of work performed); a value less than 1 indicates it is costing more to do the work than was budgeted.

³ SPI is BCWP/ BCWS (budgeted cost of work performed divided by budgeted cost of work scheduled); a value less than 1 indicates less work is being achieved than planned.

Statement

- 4.1.12 We have monitored the 2005/06 financial and output variances for FTN/GSM-R. The reporting processes of the programme are clearly defined and appear to be robust. There is a shortfall in outputs versus the baseline schedule and expenditure versus the budget and ACR2003 provision but analysis of unit costs and the Schedule Performance Index (SPI) at year end indicates that the teams are delivering at or above the level of efficiency planned. This programme is using the project management tools we would expect to find in a programme this large.

Recommendations arising

- 4.1.13 **FTN/ GSM-R Recommendation 1.** Some activities undertaken by the FTN/GSM-R project, for example the installation of under-track and under-rail crossings (UTX/ URX), are generic activities that will be performed by other enhancement and renewals projects. We recommend the relevant data is collected using Network Rail's Cost Analysis Framework (CAF) so that unit costs can be captured to monitor efficiency and improve future cost estimation.

4.2 Southern New Trains Programme (SNTP)

Scope

4.2.1 In order to bring over 2,000 new train carriages into service in Kent, Surrey, Sussex and Hampshire to replace the remaining Mark 1 slam door stock in compliance with the 1999 Railway Safety Regulations, it was necessary for Network Rail to undertake:

- (a) A major traction power supply upgrade ('PSU' works); and
- (b) Other infrastructure works, such as depot and platform works ('non-PSU' works).

Financial Variance

4.2.2 Figure 4.2.1 shows the financial provision for PSU and non-PSU; 0.6m in 2001/02 and 20.4m in 2002/03 was funded by Strategic Rail Authority; the remainder was logged up to the RAB; years 2003/04 to 2006/07 were confirmed in Access Charges Review 2003.

£m	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	Total
PSU	0.6	25.7	173	481	76	20	727.3
Non-PSU	-	-		28	13	8	49
Total	0.6	25.7	173	481	76	20	776.3

Figure 4.2.1 ACR2003 Final Conclusions for SNTP

4.2.3 The start of year budget for 2005/06 was £114.2m. The variance between ACR2003 and the financial budget is due to rephasing of the work to deliver £165.5m efficiencies due to an extended deadline for delivery of full outputs. Figure 4.2.2 shows the anticipated final cost for the works.

£m	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	Total
PSU	0.6	27.8	139.6	247.5	116.0	48.9	580.4
Non-PSU	-	-	2	8.3	11.8	8.3	30.4
Total	0.6	25.7	141.6	255.8	127.8	57.2	610.8

Figure 4.2.2 SNTP AFC (excluding interest)

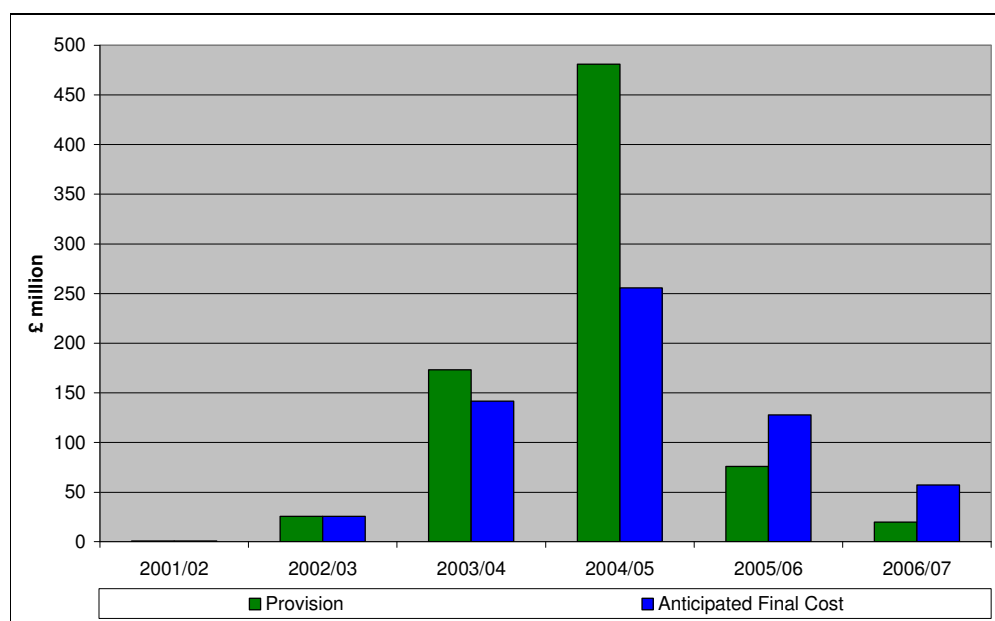


Figure 4.2.3 SNTP AFC (excluding interest) compared with provision by SRA/ ACR2003

4.2.4 Analysis of the 2005/06 financial variance (full-year forecast versus current budget) is shown in Figure 4.2.4. The total variance reported for 2005/06 is a £1.9m overspend, representing 1.7% of the start of year budget.

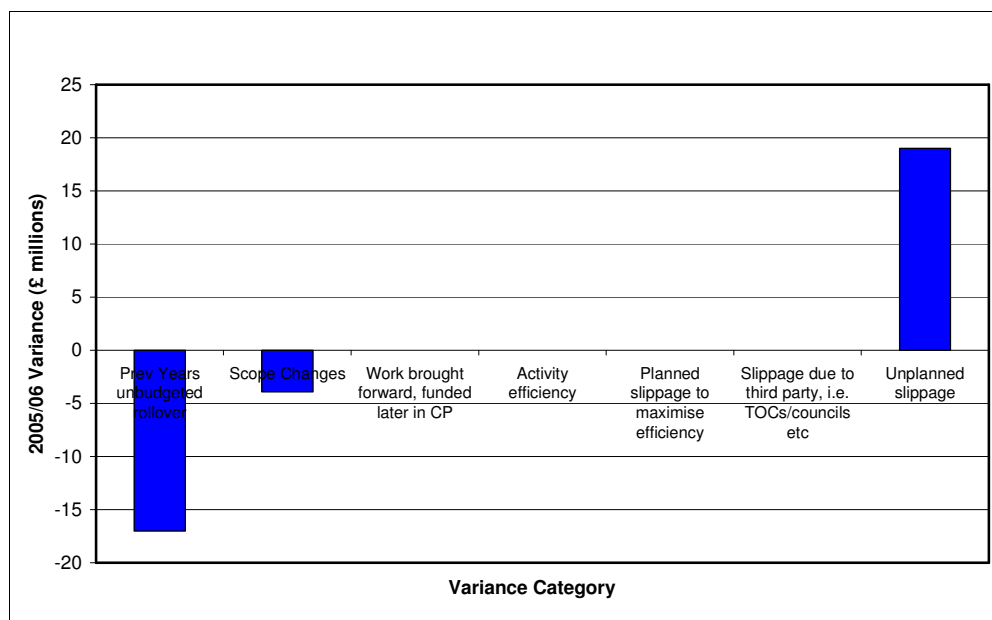


Figure 4.2.4: Analysis of SNTP variance 2005/06 (full-year forecast versus budget; positive variance is underspend)

4.2.5 The delivered spend for PSU was on budget for 2005/06. The Non-PSU variance comprises £3.9m additional scope for Southern Trains depot works and £17.0m roll-over from previous year which is largely matched by extension of £19.0m spend into 2006/07 as the projected work on trial running and grid harmonics has been deferred pending further testing.

Output Variance

4.2.6 The PSU works comprise installation of 90 substations and 82 feeder routes. At year-end 90 substations and 80 feeders were in use with over 80% of sites at stage 2 handback or better⁴. Figure 4.2.5 and Figure 4.2.6 show the handback profile.

4.2.7 The project has baselined output KPIs. The project schedule showed 51% complete against a baseline of 65%; the shortfall is due to:

- (a) Stage 3 handback (17 sites behind schedule);
- (b) Stage 2 handback (21 sites behind schedule);
- (c) Progress on crystallisation of suppliers costs in Final Accounts (116 accounts of £268.1m finalised versus baseline of 137 accounts of £328m).

4.2.8 The unit cost, CPI and SPI statistics for SNTP were monitored by the project team until Period 13 2005/06.

⁴ Stage 1 handback is introduction to operational use; Stage 2 handback is transfer of maintenance responsibility from the project team to the maintenance team; Stage 3 handback is completion of snagging and final documentation lodged; Stage 4 handback is update of all master records.

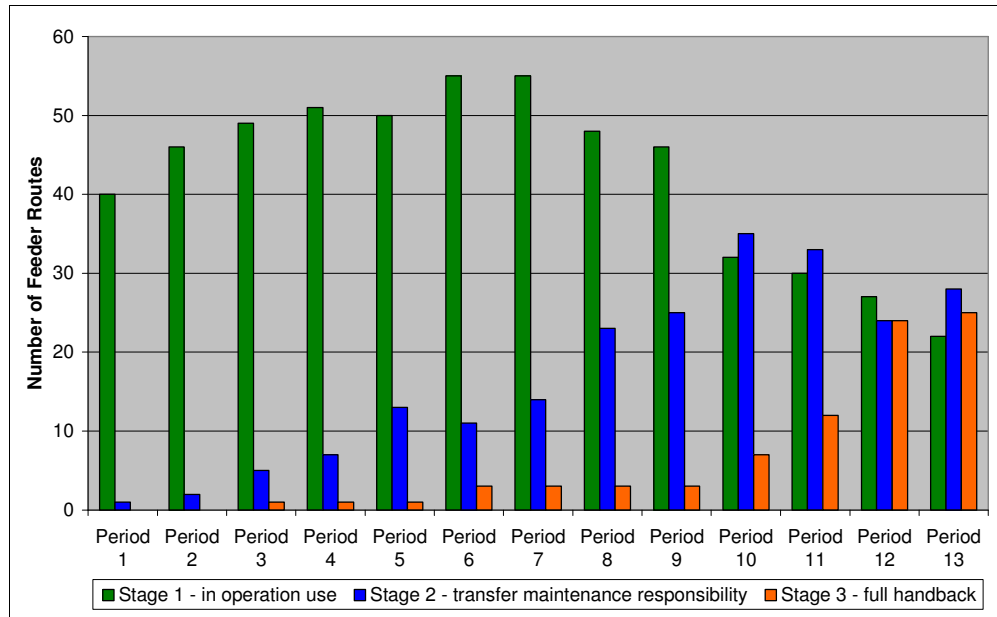


Figure 4.2.5: Progress of Feeder Route handback

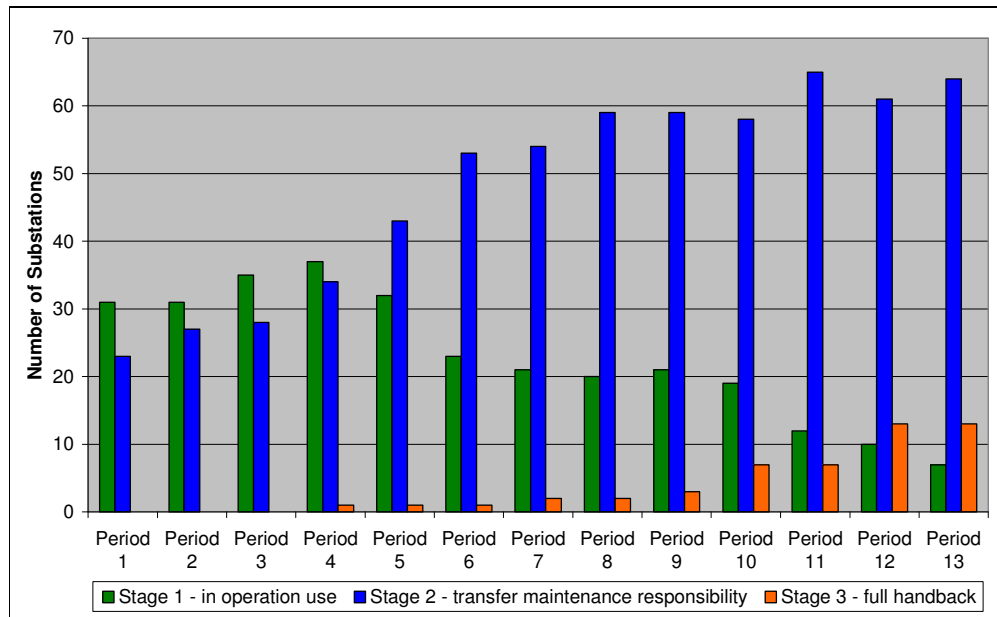


Figure 4.2.6: Progress of Substation handback

4.2.9 Trial Running and Trial Running Works are progressing. Testing continues and recent results continue to indicate that the core HV and substation network is behaving broadly as planned. No further enhancements are required on the sites tested to date.

Statement

- 4.2.10 We have monitored the 2005/06 financial and output variances for the Power Supply Upgrade (PSU) works; we have only reviewed the financial variances for Non-PSU works. There is a significant difference between the budget and ACR2003 provision due to re-phasing of the work to deliver considerable efficiencies. There is a shortfall in outputs versus the baseline schedule and a minor overspend (in percentage terms) versus the budget.

Recommendations arising

- 4.2.11 None (the project is in close-out).

4.3 National Pollution Prevention Programme (NPPP)

Scope

- 4.3.1 Network Rail was funded under ACR2003 to carry out a programme of £97m of fixed price remediation works to comply with The Control of Pollution (Oil Storage) (England) Regulations 2001 and the Groundwater Regulations 1998 by meeting a 'minimum standards checklist' specified by DfT on behalf of the industry. These works have been rationalised into a national programme covering 91 depots and 313 other sites.
- 4.3.2 Phase One delivers the mandatory requirements at 91 Light Maintenance Depots (LMDs) for the Control of Pollution (Oil Storage) Regulations. Phase Two meets (a) non-mandatory requirements of the Control of Pollution (Oil Storage) Regulations at 49 LMDs and 313 other sites in compliance with the 'minimum standards checklist' and (b) the requirements of the Groundwater Regulations at 91 LMDs;

Financial Variance

- 4.3.3 At Network Rail's Investment Board in December 2005:
- (a) Five separate projects were consolidated into a single £97m fixed price programme;
 - (b) Completion was accelerated by one year to October 2007;
 - (c) The financial authority was set at £98m.
- 4.3.4 At year end 2005/06, the programme AFC is £96.7. The start of year budget for 2005/06 was £20.9m and the full-year forecast is £20.7m, representing a £0.3m underspend. Analysis of the 2005/06 financial variance (full-year forecast versus current budget) is shown in Figure 4.3.1.

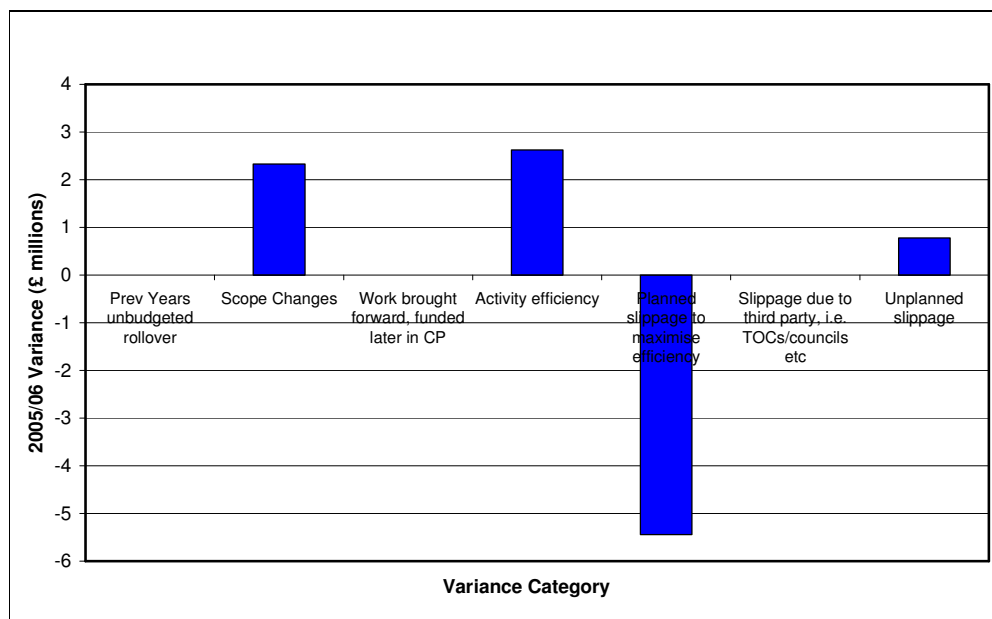


Figure 4.3.1 NPPP financial variance 2005/06 (positive variance is underspend)

- 4.3.5 The total £0.3m underspend comprises £5.4m of overspend and £5.7m of underspend:
- (a) The £5.4m overspend is categorised by Network Rail as 'Planned slippage to maximise efficiency' which appears to be an odd categorisation for an overspend;

more output has been delivered in 2005/06 than expected – this would suggest it is actually ‘Work brought forward, funded later in Control Period’ and not planned slippage.

- (b) The £5.7m underspend comprised:
 - (i) £2.3m of work identified in the option studies not required for groundwater mitigation and pollution prevention at non-LMD sites;
 - (ii) £2.6m activity efficiencies due to favourable outcomes of framework awards and final account negotiations for Phase One (pollution prevention at LMDs);
 - (iii) £0.8m unplanned slippage due to protracted negotiations delaying some contract awards.

Output Variance

- 4.3.6 Phase One successfully delivered the mandatory requirements of the Control of Pollution (Oil Storage) Regulations by the compliance date of 01 September 2005.
- 4.3.7 There are no baselined KPIs for monitoring outputs/ work progress. Phase Two progress in 2005/06 is:
 - (a) Groundwater Regulations: Completed the initial surveys of the 42 LMDs; there is a risk to groundwater at only 18 of these sites; this number may reduce further as extra information is obtained;
 - (b) Control of Pollution (Oil Storage) Regulations: non-mandatory requirements at 49 LMDs progressing:
 - (i) 12 of 40 draft option study reports issued/ reviewed;
 - (ii) Civils Form Bs signed off for Barrow, Soho, Leeds Neville Hill, Blackpool;
 - (iii) Completion or substantial completion at Edinburgh Craigentenny Depot, Reading Upper completed, Reading Lower, Penzance and Fratton.
 - (c) Control of Pollution (Oil Storage) Regulations: a summary of the potential works at each of the non-LMD sites site has been completed:
 - (i) Many site sites require minimal works (for example the installation of signage), some sites require more extensive work;
 - (ii) A number of sites have been excluded from the scope due to already being compliant or being covered by other projects.
- 4.3.8 There are no unit cost, CPI or SPI statistics for NPPP.

Statement

- 4.3.9 We have monitored the 2005/06 financial variances for the NPPP works which shows a small underspend. There appears to be an issue with the financial variance categorisation. We have not been able to review the output variances as the reporting processes do not include baselined output Key Performance Indicators (KPIs). Definitive statements regarding on-going efficiency are not possible as no unit cost, CPI or SPI statistics were reported.

Recommendations arising

- 4.3.10 **NPPP Recommendation 1.** We recommend the NPPP team implement periodic reporting of baselined output KPIs, CPI/ SPI and unit costs to improve the measurement, and consequently the management, of the work.
- 4.3.11 **NPPP Recommendation 2.** We recommend the categorisation of £5.4m of overspend, currently categorised by Network Rail as ‘Planned slippage to maximise efficiency’, is reviewed.

- 4.3.12 **NPPP Recommendation 3.** We recommend the NPPP activities are assessed to identify those that might usefully be captured using the Network Rail Cost Analysis Framework (CAF) so that efficiency can be monitored and future cost estimation can be improved.

4.4 Access for All

Scope

- 4.4.1 A key part of DfT's 'Railways for All' strategy is the 'Access for All' funding targeted at improving the accessibility of the rail network, predominately at stations. The Access for All funding comprises £378m (2004 prices) of improvements from 2006/07 to 2014/15:
- (a) £35m per year targeted at improving the accessibility of station infrastructure, delivered by Network Rail and added to the RAB.
 - (b) £7m per year available as DfT Cash Expenditure to be allocated for (i) small schemes funding which TOCs, local government or other parties may bid for, or (ii) incremental operation and maintenance costs, or (iii) other purposes in pursuit of the Railways for All strategy.
- 4.4.2 In 2005/06, the work was directly cash funded by DfT to enable Network Rail to commence development work prior to the first full year of funding.

Financial Variance

- 4.4.3 There was a £0.3m underspend (22%) for 2005/06 against the reported full year forecast of £1.4m. This was due to an agreed two week delay on two outline designs.

Output Variance

- 4.4.4 In 2005/06, a list of priority stations was published by DfT after initial viability checks had been completed; design consultants progressed 14 of 16 outline designs on time; two large enhancements were delayed two weeks by agreement:
- (a) Norwood Junction was not progressed to an agreed single option as the initial proposal was not appropriate.
 - (b) A alternative solution to Clapham Junction was evaluated/ consulted with stakeholders; the results are due in May 06.
- 4.4.5 Formal agreement of the Protocol between Network Rail, DfT, Transport Scotland and ORR documenting the scope, funding and governance arrangements for the Access for All programme did not meet the intended timescales in 2005/06. At year end, no other aspects of the programme were reported behind schedule.

Statement

- 4.4.6 We have monitored the 2005/06 financial and output variances for Access for All. The reporting processes of the programme were evolving in 2005/06 given the early stage of the programme. Definitive statements regarding reporting and on-going efficiency are not possible due to the early stage of the programme.

Recommendations arising

- 4.4.7 **AFA Recommendation 1.** We recommend the Access for All team implement periodic reporting of financial variance, baselined output KPIs, CPI, SPI and unit costs to improve the measurement, and consequently the management, of the work.
- 4.4.8 **AFA Recommendation 2.** We recommend Access for All activities are assessed to identify those that might usefully be captured using the Network Rail Cost Analysis Framework (CAF) so that efficiency can be monitored and future cost estimation can be improved.

4.5 Network Rail Discretionary Fund

Background

- 4.5.1 Network Rail Discretionary Fund (NRDF) was established to fund schemes to be designed and delivered by Network Rail which have an estimated cost of less than £5 million per scheme net of third party contributions and a strong whole-industry business case; these might be stand-alone schemes or additional to work already planned by Network Rail.
- 4.5.2 NRDF comprises £200 million over the four years beginning in 2005/06, with the ability to carry forward overspends or underspends. As part of the financial settlement between the DfT and Transport Scotland, it has been agreed that around £20 million (i.e. around 10%) of the fund will be spent in Scotland, and the remainder in England and Wales.
- 4.5.3 Schemes are identified by Network Rail itself or as part of discussions with customers at the Route Investment Review Group (RIRG); schemes are subsequently reviewed by the Network Rail Route Strategy Planning Group (RSPG).

Variance

- 4.5.4 The NRDF funding was agreed during the 2005/06 year and therefore was not part of the 2005/06 business plan. During 2005/06, Network Rail has identified schemes which meet the criteria for NRDF funding and commenced project development. This has meant that expenditure of the full year funding of £50m was not possible; the underspend is rolled over to following years in accordance with the NRDF funding agreement. During 2005/06, £4.0m was spent on NRDF schemes.
- 4.5.5 The NRDF master list for 29 March 2006 shows 5 pilot schemes and 75 fast-track schemes; Figure 4.5.1 shows the project development stage of these schemes at year end 2005/06.

GRIP Stage	Number of projects	2006/07	2007/08	2008/09	2009/14	Total
0	16	1.7	6.4	8.1	30.3	46.5
1	26	5.1	11.4	26.8	13.1	56.4
2	9	1.4	9.4	5.8	10.2	26.7
3	5	13.5	72.7	4.2	4.7	95.0
4	7	9.1	1.6	2.9	0.0	13.6
5	1	0.0	5.0	0.0	0.0	5.0
6	2	4.3	0.0	0.0	0.0	4.3
Not recorded	14	8.4	11.2	7.5	0.0	27.1
All stages	80	43.4	117.5	55.2	58.4	274.5

Figure 4.5.1 Project Development Stage of NRDF Projects (year end 2005/06)

Statement

- 4.5.6 Network Rail has made progress, putting in place the mechanisms to control the identification and evaluation of schemes which can meet the criteria before going forward for delivery. As the NRDF funding was agreed during the 2005/06 year expenditure of the full year funding of £50m was not possible; however, the underspend will be rolled forward for future years. The reporting processes of the programme were evolving in 2005/06 given the early stage of the programme. Definitive statements regarding reporting and on-going efficiency are not possible due to the early stage of the programme.

Recommendations arising

- 4.5.7 **NRDF Recommendation 1.** We recommend the NRDF team implement periodic reporting of financial variance, baselined output KPIs, CPI/ SPI and unit costs to improve the measurement, and consequently the management, of the work.

- 4.5.8 **NRDF Recommendation 2.** We recommend NRDF activities are assessed to identify those that might usefully be captured using the Network Rail Cost Analysis Framework (CAF) so that efficiency can be monitored and future cost estimation can be improved.

4.6 Commercial Property Projects

Scope

- 4.6.1 Network Rail is responsible for maximising a sustainable commercial property revenue from the development, sale and leasing of its property assets, incorporating office, residential, retail and commercial opportunities. Network Rail assess property investment opportunities to make a commercial return, using standard financial evaluation techniques and assumptions for economic factors, investment return hurdle rates (IRR), tenancy void/default rates and resource constraints.
- 4.6.2 The revenue from the schemes is subject the single till when access charges are reviewed by ORR. Some of these schemes self-finance within a control period through the revenue generated by the scheme; the remainder, though also self-financing, do not recover their costs within a control period and are added to the RAB⁵.

Variance

The schemes are delivered either by Network Rail's MP&I Estates or its Commercial Property team. Figure 4.6.1 shows the enhancement expenditure variance between budget and full-year forecast for the 2005/06 financial year.

2005/06	Delivered by MP&I Estates			Delivered by Commercial Property			Total Investment		
	Budget (£m)	Forecast (£m)	Var (%)	Budget (£m)	Forecast (£m)	Var (%)	Budget (£m)	Forecast (£m)	Var (%)
Enhancements	20.2	12.2	+39.5%	8.8	1.0	+89%	29.0	13.2	+54.6%

Figure 4.6.1 2005/06 commercial property expenditure (positive variance is underspend)

- 4.6.3 The £15.8m underspend was due to:
- "Planning through change"; Network Rail undertook a re-organisation in MP&I Estates and Commercial Property teams which impacted the level of activity;
 - Slow spending to reflect the market conditions; Network Rail found fewer than expected commercial opportunities which achieved the hurdle rate;
 - Schemes which were planned to be delivered but did not meet Network Rail's hurdle rate, required further development work before they could be approved as commercially viable.
- 4.6.4 Figure 4.6.2 shows the authorised, full-year forecast and variances for the Commercial Property enhancements portfolio for the years 2004/05-2006/07 (respectively 'Auth', 'Full-year forecast' and 'Var' in Figure 4.6.2). The forecast full-year forecast anticipated final cost for work in progress was not available ('n/a') for this report.
- 4.6.5 Retail schemes show an additional £1.3m revenue due to good cost control and higher than expected rates of occupancy and rental rates; as a portfolio, the investments show a net present value 29.6% higher than business case. All the completed schemes achieved a higher internal rate of return (IRR) than the hurdle rate for authorisation by Network Rail Investment Board, except for:
- Paddington Station Macmillan House Retail (the unit has void tenancy as a result of delay from another adjacent project for British Transport Police); and
 - London Bridge Essential Incremental Retail Works (due to lower than expected occupancy rates).

⁵ Though added to the RAB, there should be no additional call on Government funds as these schemes are expected to make a return.

2004/05-2006/07	Anticipated Final Cost			Incremental Income			Net Present Value		
	Auth (£m)	Forecast (£m)	Var (%)	Auth (£m)	Forecast (£m)	Var (%)	Auth (£m)	Forecast (£m)	Var (%)
Retail completed	17.4	17.6	-1.0%	5.8	7.1	+21.6%	15.6	20.2	+29.6%
Spacia completed	28.8	27.3	+5.2%	3.3	2.1	-38.0%	8.4	3.7	-56.7%
Total completed	46.2	44.9	+2.9%	9.1	9.1	-0.1%	24.0	23.9	-0.7%
Retail work in progress	9.6	n/a	n/a	11.1	-	-	27.8	-	-
Spacia work in progress	18.0	n/a	n/a	1.8	-	-	20.5	-	-
Total work in progress	27.6	n/a	n/a	12.9	-	-	48.3	-	-
Total	72.1	n/a	n/a	22.0	-	-	72.7	-	-

Figure 4.6.2 Commercial Property projects 2004/05-2006/07 (positive variance for anticipated final cost is underspend; for income and net present value, positive variance is better than planned)

- 4.6.6 Spacia (commercial letting) schemes show a 38.0% shortfall in incremental income and 56.7% shortfall in NPV against the latest authority from Network Rail Investment Board. At year end 2005/06, 9 of 23 schemes in Southern and 2 of 12 schemes in London North Eastern are not meeting the IRR hurdle rate used for authorisation.
- 4.6.7 The shortfall in income and NPV was due to:
- (a) Occupancy rates being under expectations;
 - (b) Some evidence of delays to work or poor quality making rental impossible, for example:
 - (i) Stewarts Lane/ Lindford Street, where handback was delayed due to a 33 page snagging list and other subsequent faults were found such as leakage in four units and cracked concrete floors;
 - (ii) South Bermondsey Rotherhithe New Road Phase 2, where remedial works are ongoing;
 - (iii) Waterloo Wooton Street/ Brad Street, where one unit has severe water ingress;
 - (c) Some evidence of schemes not meeting market needs, e.g. London Bridge Arches Druid Street & Maltby Street (where high specification arch refurbishments have been delivered on a busy one-way road with no parking when the local market is for low-spec sites for secondary storage);
 - (d) Some evidence of subsequent changes undermining the initial business case, for example:
 - (i) Vauxhall Arches Newport Street, where lettable space is 8,237 sq. ft. not 8,611 sq. ft. as planned;
 - (ii) Vauxhall Black Prince Road, where lettable space is 8,875 sq. ft. not 9,400 sq. ft.
- 4.6.8 For Spacia schemes, full-year forecast were less than the originally authorised spend in all cases except Stewarts Lane/ Linford Street where a £1.1m (33.4%) cost overrun was incurred due to snagging and other remedial works.

Statement

- 4.6.9 We have monitored the 2005/06 financial and output variances for the commercial property projects. There was a significant underspend in enhancements due to difficult market conditions and a reorganisation. The incremental income and net present value of the completed portfolio were on budget. We have not been able to review the output variances as the reporting processes do not include baselined output KPIs. Definitive statements regarding the efficiency of work delivered are not possible as no unit cost, CPI or SPI statistics were reported.

Recommendations arising

- 4.6.10 **Commercial Property Recommendation 1.** We recommend the Commercial Property team implement periodic reporting of baselined output KPIs, CPI/ SPI and unit costs to improve the measurement, and consequently the management, of the work.
- 4.6.11 **Commercial Property Recommendation 2.** We recommend the Commercial Property activities are assessed to identify those that might usefully be captured using the Network Rail Cost Analysis Framework (CAF) so that efficiency can be monitored and future cost estimation can be improved.

5 Reporter's scrutiny and opinion

5.1 Commentary on Project Monitoring 2005/06

- 5.1.1 This is the first year of project monitoring by the Independent Reporter, work having commenced in January 2006. This is the first annual report, covering the financial year 2005/06. Separate reports are produced for projects/ programmes monitored at completion or on an on-going basis.
- 5.1.2 The aim of annual project monitoring is:
- (a) To give a comparison of planned expenditure and full-year forecast expenditure in total for the financial year and an explanation of any variance;
 - (b) To give a comparison of planned outputs with actual outputs for the financial year and an explanation of any variance.
- 5.1.3 We have experienced differing levels of cooperation from the project teams, due to a variety of reasons, including
- (a) The level of resourcing and activity within the project/ programme team;
 - (b) The completeness of the project management processes, particularly monitoring and reporting, undertaken by the project/ programme team;
 - (c) The attitude of the project/ programme team to monitoring and reporting as part of the project/ programme management process.
- 5.1.4 In conducting our reporting activity we have identified a number of underlying issues which we believe need to be addressed if the delivery of projects/ programmes is to be improved. Resolution of these issues would also improve Network Rail's efficient and effective delivery of projects/ programmes. These are:
- (a) Mandatory implementation of periodic reporting for all enhancement projects and programmes using baselined output KPIs, CPI/ SPI and unit costs; in our opinion this is essential for proper management of projects and programmes;
 - (b) Improvement of compliance with the Financial Variance Reporting Process which is part of the Monthly Business Review Pack; we found on a number of occasions that explanations of variances were superficial or missing; this issue is already covered by the recommendations of the Network Rail Investment Financial Variance Year-End Audit Report (IEPODoc013, 26 June 2006) and the Independent Reporter Annual Return 2006 Final Report (Halcrow, September 2006);
 - (c) Incorporation of the enhancement portfolio in Network Rail's Cost Analysis Framework (CAF) so as to:
 - (i) Identify those activities which, though they are being undertaken as enhancements, are identical to activities being monitored as part of renewals unit cost monitoring using CAF; this would increase the volume of the CAF data set, improving its accuracy;
 - (ii) Identify those activities which, though they are enhancements, are likely to be repeated in the future in sufficient volume to make it worth capturing using the CAF process; this will widen the scope of the CAF data set, improving its usefulness to Network Rail and Office of Rail Regulation.
 - (d) Acquisition and retention of skilled and experienced human resource remains a key issue for Network Rail, with a number of projects experiencing shortfalls in project management or delivery of work due to insufficient resources.

5.2 Reporter's Audit Statement

- 5.2.1 This report, including opinions, has been prepared for use of Office of Rail Regulation and Network Rail and for no other purpose. We do not, in reporting, accept responsibility for any other purpose or to any other person to whom this report is shown.
- 5.2.2 We report our opinion on the financial and output variances of major projects as directed by Office of Rail Regulation and Network Rail. We confirm the data presented by Network Rail was correct except where identified in the text of our report.
- 5.2.3 We confirm that, in our opinion, the reported information is a reasonable representation of performance and data has been properly prepared and reported in accordance with agreed procedures, except as noted in our report commentaries.

David Simmons

David Simmons,
Independent Reporter,
Halcrow Group Limited,
December 2006.

6 Appendix A: Recommendations

Reference code	Recommendation
2005/06-D001	FTN/ GSM-R Recommendation 1. Some activities undertaken by the FTN/GSM-R project, for example the installation of under-track and under-rail crossings (UTX/ URX), are generic activities that will be performed by other enhancement and renewals projects. We recommend the relevant data is collected using Network Rail's Cost Analysis Framework (CAF) so that unit costs can be captured to monitor efficiency and improve future cost estimation.
2005/06-D002	NPPP Recommendation 1. We recommend the NPPP team implement periodic reporting of baselined output KPIs, CPI/ SPI and unit costs to improve the measurement, and consequently the management, of the work.
2005/06-D003	NPPP Recommendation 2. We recommend the categorisation of £5.4m of overspend, currently categorised by Network Rail as 'Planned slippage to maximise efficiency', is reviewed.
2005/06-D004	NPPP Recommendation 3. We recommend the NPPP activities are assessed to identify those that might usefully be captured using the Network Rail Cost Analysis Framework (CAF) so that efficiency can be monitored and future cost estimation can be improved.
2005/06-D005	AFA Recommendation 1. We recommend the Access for All team implement periodic reporting of financial variance, baselined output KPIs, CPI, SPI and unit costs to improve the measurement, and consequently the management, of the work.
2005/06-D006	AFA Recommendation 2. We recommend Access for All activities are assessed to identify those that might usefully be captured using the Network Rail Cost Analysis Framework (CAF) so that efficiency can be monitored and future cost estimation can be improved.
2005/06-D007	NRDF Recommendation 1. We recommend the NRDF team implement periodic reporting of financial variance, baselined output KPIs, CPI/ SPI and unit costs to improve the measurement, and consequently the management, of the work.
2005/06-D008	NRDF Recommendation 2. We recommend NRDF activities are assessed to identify those that might usefully be captured using the Network Rail Cost Analysis Framework (CAF) so that efficiency can be monitored and future cost estimation can be improved.
2005/06-D009	Commercial Property Recommendation 1. We recommend the Commercial Property team implement periodic reporting of baselined output KPIs, CPI/ SPI and unit costs to improve the measurement, and consequently the management, of the work.
2005/06-D010	Commercial Property Recommendation 2. We recommend the Commercial Property activities are assessed to identify those that might usefully be captured using the Network Rail Cost Analysis Framework (CAF) so that efficiency can be monitored and future cost estimation can be improved.