REPORT

OF PROGRESS

AGAINST PLANS

SET OUT IN THE

1998 NETWORK

MANAGEMENT

STATEMENT

The Annual Reconciliation Statement

July 1999

Purpose and scope of this statement

The Reconciliation statement is to be published annually by Railtrack Plc in accordance with Condition 7 of its Network Licence.

The purpose of this statement is to:

- describe the works we have carried out during the past financial year (1998 / 99);
- reconcile these works with the plans set out in the 1998 Network Management Statement (NMS) published in March 1998;
- describe the reasons for any variance between the works we carried out and those plans;
- explain any material changes to those plans

In accordance with our Licence requirement, this Statement is in a format compatible with the 1998 NMS.

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1. BACKGROUND AND SUMMARY

Background

The 1998 Network Management Statement was the first statement to be published under the amended Licence Condition 7 of our Network Licence. The publication of this statement represents the full implementation of the planning and reporting cycle required by Condition 7.

The format of this year's Reconciliation Statement is directly compatible to that used to produce the 1998 NMS. The financial data included in this statement has had the forecast data for 1998/99 held at 1997/98 prices. The amounts stated as actuals for the 1998/99 year have been retained at their outturn values. The rationale behind this process is two fold:
- it enables the reader to clearly trace the forecast figures from the 1998 NMS to this reconciliation statement;
- the All Items Retail Price Index for the year was 3.1% and as such does not distort the comparability of each individual line by line forecast data to actual.

Progress in 1998/99

Railtrack has undergone intense activity since the 1998 NMS publication. We have developed a new, more systematic approach to the management of train performance, based on budgets, action plans which focus on key route sections and assets, and accountability for delivery with Area Delivery Groups. We have adopted a more collaborative approach to working with our customers - the train operators - based on a ten point plan for improving train performance. The Government's Rail Summits, held in November 1998 and February 1999, provided a catalyst for this approach.

With the support of our customers and funders we have established a process for identifying their requirements of us and are building this approach into our ongoing customer account planning process.

We have also changed the way we work with our maintenance contractors, moving to a more collaborative approach with an 'open-book' policy. Our investment programme has been re-balanced towards enhancement and we have introduced new techniques for managing the maintenance / renewal trade-off.

We have also introduced a review process to ensure that, as far as possible, decisions on the timing and scope of renewals are being taken on a consistent basis across our network, and that these decisions are based on our best understanding of the way our assets deteriorate and the most cost effective way of renewing them. This improved process has started to re-shape plans to support delivery of minimum whole life cost maintenance / renewal regime. We have now completed half the Station Regeneration Programme and have made solid progress on safety, introduced new collaborative approaches to time-tabling, and started upgrading the West Coast Main Line. We have assisted in enabling the Channel Tunnel Rail Link to progress towards completion.

Headline achievements

The expenditure on maintenance in the year was £6m less than the forecast £700m. We have undertaken a joint initiative with our contractors into improving maintenance effectiveness. We have also delivered efficiencies through the re-alignment of contract boundaries in preparation for IMC 2000.

Investment expenditure at £1,404m was £107m above forecasts. Renewals expenditure has been reduced in the year from a forecast of £1,175m to £1,130m with enhancement expenditure rising from a forecast expenditure of £122m to £274m. This represents a combined increase of £107m. The shift in expenditure indicates the future direction in which Railtrack policy will progress as outlined in the 1999 NMS. The main area to benefit in the year has been the delivery of the station regeneration programme which exceeded its forecast output target.

Performance / reliability has improved in the year with an improvement in delays on passenger trains of 1.8% and on freight trains of 11.1%. These improvements have been achieved at the same time as traffic kilometres in these sectors has increased by 8% and 18% respectively in the year. Amended targets of 7.5% in both passenger and freight were agreed with the Rail Regulator in July 1998. The amended target was substantially exceeded in respect of freight services but not achieved for passenger services. Strenuous efforts will continue to reduce those delays over which Railtrack has direct control.

On freight, we have continued to meet our customers immediate requirements. The freight routeing strategy has continued to be developed to meet the markets longer term requirements. This statement includes an outline of the development in the year of both the freight route strategy and upon the freight Ten Point Plan.

Station facilities have improved substantially on prior year across the six categories of measurement identified in the 1998 NMS. In the course of the year a survey of the entire network was undertaken to generate a database containing details of all station facilities. The parameters of this survey differ from that used in the 1998 NMS and are to be used to plan and report in the 1999 NMS onwards. We are ahead of schedule on the station regeneration programme and remain committed to complete the programme by March 2001.

Railtrack has further developed the strategy of the network at the route level. The expenditure and development of the 45 route strategies in the year are analysed in section 5 of this statement. The company is striving to maintain the openness of its plans and has further expanded its performance and financial measures at the route level in the 1999 NMS.

During the year Railtrack's Year 2000 programme was subject to audit by consultants acting for the Rail Regulator. The findings of the audit were satisfactory.

Consultation process

In the 1998 NMS , we set out our wish to develop further the effectiveness of our consultation with all interested parties. During April and May 1998 we held discussions with most of our customers and held a series of workshops during Summer 1998 to feedback the results of our consultation and our proposed actions to address the issues raised. The key conclusions from these consultations were set out in the 1999 NMS which was designed to answer the concerns stated while building upon the positive aspects of the 1998 NMS.
We remain committed to improve our consultation process to satisfy the reasonable requirements of customers and funders.

2. CONTEXT

The 1998 NMS summarised our views at that point in time on the possible future role of the rail network in the emerging policy on integrated transport. Within this context we set out :

- our policy to work with the promoters of Light Rapid Transport systems (LRTs)
- current facilities at stations and indicated how these could be expected to change in the future with stations providing a key focus for integrated transport
- the opportunities for achieving transport integration through improving rail to airport links
- our understanding of likely rail demand for passenger, freight and the London Market
- our commitment to the development of output measures and targets to demonstrate our progress in maintaining, renewing and enhancing the network
- key safety and environmental developments expected in 1998/99.

We review each of these in turn.

2.1 INTEGRATED TRANSPORT

Light Rapid Transport Systems (LRTs)

During the 12 months being reviewed progress has been made as follows:

Studies continue into the schemes in the West Midlands, Oxford, Bristol, Cardiff, Portsmouth and Nottingham. In the West Midlands we understand that CENTRO aim to submit an outline business case to DETR for PFI funding in Autumn 1999 and their target for completion is 2005. In Cardiff an exercise (funded by Cardiff Railway Company and undertaken by Railtrack) has been carried out to assess the feasibility of LRT operation between Queen St and Cardiff Bay. The results of this exercise are with the Cardiff Bay Development Corporation for their consideration.

Railtrack has had extensive negotiations with the promoters and their agents regarding the Portsmouth scheme. A T&WA order was lodged by the promoter and Railtrack has made a submission as part of this process. A public enquiry was held in February 1999. The timetable for the T&WA at the time of the inquiry indicated that the Secretary of State would announce a decision during 1999.

The Croydon scheme is still under construction by contractors acting for the promoter.

We have successfully reached agreement with NEXUS (PTE) on a detailed and costed proposal to complete the Sunderland Tyne and Wear Metro extension scheme. We are now supporting NEXUS to achieve agreement with the ORR and to secure funding from Europe and other sources.

Airport links

Heathrow Airport

The full four trains per hour Heathrow Express service, operated by BAA, came into operation in the summer of 1998.

Heathrow - St.Pancras

Work has been continuing on the development of a service between Heathrow and St.Pancras. The scope of the infrastructure work has now been defined and a train planning exercise has been carried out. Negotiations regarding a track access agreement are currently taking place with BAA. The development and proposals of the link are discussed further in the 1999 NMS (Section 8.4).

Feltham Gateway
The interchange was officially opened by Sir Alistair Morton on 22 April 1999. The bus operations commenced about a week earlier.

Terminal 5 North West Link
The feasibility exercise for the North West Link showed that a Heathrow T5 passenger service to the GWML via the West Drayton to Colnbrook branch was not viable on its own but may be in the context of a freight scheme - a freight terminal scheme at Colnbrook which will, in future, also serve Heathrow is currently being developed, (see page 101 of the 1999 NMS). However, the Airtrack South West scheme (see below) for passenger service appears to have a much more robust commercial case than the North West Link and is now being developed instead.

Airtrack South West
The feasibility study in association with BAA, BA and many local authorities has been completed. It concluded that there was a possibility of a commercial scheme to link our infrastructure to the south of Heathrow via Staines with that already in existence to the north. Railtrack is about to commence a commercial and operational assessment with BAA and BA to refine the scheme still further in order to confirm that the apparent benefits do in fact exist.

Gatwick Airport
The development of Gatwick airport is discussed within the commentary to Route 19 in this statement.

Stansted Airport
The introduction of a regular hourly service throughout the day from Cambridge and beyond using the northern airport chord was implemented during the year.

Luton Airport
The building of a new station which will fulfil a dual role as both a Parkway and a facility for easy access to Luton Airport has continued during the year. Completion is envisaged in Winter 1999.

Manchester Airport
An initial feasibility study into station capacity, jointly funded by all partners, has been completed. Railtrack is continuing to discuss the issues, and is continuing to work closely with Manchester Airport and other partners in the continued development of a multi-modal Ground Transport Interchange facility (train, tram, bus, coach). Ongoing work includes investigation of platform enhancements and track capacity issues.

Glasgow Airport
Evaluation of the options for the introduction of a rail link to Glasgow Airport is ongoing. The aspiration is to run 4 trains an hour from the airport into central Glasgow, with the provision of a new link from Paisley St. James and a new twin platform station at the airport. Additional tracks will be required to ensure that the introduction of the service does not cause capacity problems. A new cross-Glasgow passenger link to allow services from the Airport to extend through to destinations on the north of the Clyde is also being assessed.

2.2 THE LONDON MARKET

Inner London Orbital Route Study (INLORS)
INLORS concluded in May 1998 that there was limited demand for an orbital network per se and that overlaying such services on the existing radial network would create significant problems with capacity at key nodes. However, there were a number of potential non-orbital flows that might be attractive to the rail industry and these are being evaluated as part of the of Railtrack's proposals for integration of the Underground sub surface lines and other associated schemes such as Airtrack. In particular the East London line northern and southern extensions provide an opportunity to develop alternative radial and cross London routes - and potentially create an orbital corridor.

East Thames corridor
The studies looking at river crossings between the Blackwall Tunnel and Dartford under the auspices of Government Office for London (GoL), with Railtrack as a contributor, have been completed. GoL have recommended that decisions on the issue should be left for the Mayor for London bearing in mind that all the public transport crossing will require funding from the public purse.

In the meantime London Transport (LT) with Docklands Light Railway (DLR) and Railtrack are examining DLR options for the Woolwich Rail tunnel which would, inter alia, make better use of the North London Line (NLL) alignment on the north side of the river on the Stratford / North Woolwich corridor.

CrossRail
Railtrack's assessment of CrossRail cannot be finalised until our work on the integration of the Underground sub surface lines is completed. Once this has happened we will review the situation to determine whether or not CrossRail will be a viable scheme.

2.3 PERFORMANCE MEASURES

The 1999 NMS has been developed in discussion with ORR, OPRAF and our industry partners to include the following improvements in reporting of performance measures:

- Increased disaggregation of geographic data - with zonal forecasts of asset renewal rates and route analysis of journey times, track - line speeds, gauges and axle weights.
- Performance measures reported 10 years in advance compared to 3 years previously.

As discussed in the 1998 NMS the development of more robust measures of station facilities has been completed. The development has been achieved through a comprehensive survey of all stations and subsequent construction of a database to measure existing facilities against those proposed in the 'Modern facilities at stations specification'.

2.4 SAFETY DEVELOPMENTS

The 1998 NMS described some of the key developments expected in 1998/99. Progress has been made as follows:-

Driver's Reminders Appliance (DRA)
The implementation of the Drivers Reminder Appliance (DRA) on all passenger trains required by the Railway Group Standard (approximately 90% of all passenger trains currently in service) was completed on time in early December 1998. The Rolling Stock Leasing companies and their contractor, WS Atkins, are to be congratulated on meeting the very demanding schedule required by the Standard. Monitoring of usage and system effectiveness is now ongoing and will be reported in our regular safety performance reports.

Train Protection Warning System (TPWS)
Development of TPWS has proceeded satisfactorily. The fitted rolling stock on the Thameslink route has now completed over one million miles without significant incident. Deliberate operation of the system under controlled conditions has validated performance as meeting or exceeding the theoretical predictions.

Early in 1998, following presentations and demonstrations of the TPWS to the Health and Safety Commission (HSC) they decided that its national implementation should be mandated through the making of a Regulation. Following consultation and dialogue with the HSE in developing such a Regulation the HSC forwarded a draft Regulation to Ministers for signature and processing into law in December 1998. Unfortunately at the time of writing the Regulations have still not been signed. Whilst the regulations mandate a more extensive infrastructure fitment than we believe is strictly justified on safety cost/benefit grounds we have welcomed the implementation through such a Regulation for the clarity of responsibility it brings on implementation processes and funding. We

are keen to see the Regulation signed; the Regulation requires installation to be completed by 31 December 2003 which was always very challenging and as the months go by this looks increasingly difficult.

In the meantime our development of the system has progressed from trials to full scale pilot installations to validate the standards, procedures and other documentation required to manage a national implementation.

The current status of the project is :-

- Initial trial complete but time extended to gain experience. System confirmed as meeting the requirement.
- Some lessons learnt and design modified to improve reliability or reduce cost of installation.
- Extension to the remaining Thameslink fleet in progress and 50% complete. Currently fitting 3 or 4 units per week. Will be finished by August 99.
- Freightliner Class 57 fitted and operating in AWS mode.
- Tonbridge – Hastings signals have been fitted except two signals at Tonbridge.
- Work is in progress to prepare for installation on a national basis.

The technical problems with fitment of the Connex MK1 rolling stock now seem to have been overcome and it is anticipated that this element of the Tonbridge - Hastings pilot will be completed in the next few months.

The Adhesion Working Group (AWG)
The work of the AWG has continued, under sponsorship of Railtrack and most train operators. Current work includes evaluation of the performance of the Low Adhesion Warning System (LAWS) which has been installed on a Thames Train route on a trial basis. Extension of the fitment and usage of trainborne sanders is also under consideration.

High-pressure water spray
We have ordered 25 Multi-Purpose Vehicles costing about £33m to address the performance effects of adverse weather conditions. These will clean the rail-head with a high pressure (1000 Bar) water spray and lay a gel to assist trains avoiding slipping during the leaf-fall season. They will also be fitted with adjustable miniature snowploughs. Additionally, a number of Multi-Purpose Vehicles will be able to undertake weed spraying, fire damping and de-icing activities. The first two vehicles are due for delivery for testing in Summer 1999, with the remainder delivered between Autumn 1999 and the end of 2000. In the last year we have concluded the refurbishment of 22 snowploughs and 15 breakdown and recovery support vehicles. We have let a contract for the overhaul of our fleet of 5 telescopic jib 75 tonne breakdown and recovery cranes, which is due for completion in 1999.

2.5 ENVIRONMENTAL DEVELOPMENTS

The 1999 NMS develops further the vision which was discussed in the 1998 NMS and outlines the commitments and actions to be addressed by Railtrack in the coming year. Those matters specifically discussed in the 1998 NMS are addressed below.

- In the August 1997 the revised Environmental Policy was published and in response to this in the Summer of 1998 the first Corporate Responsibility Report was published entitled 'So What Are We Doing About It'. The report discusses progress against targets and objectives going forward. The Corporate Responsibility Report for 1998/99 entitled 'How We're Measuring Up' was published in July 1999.
- Railtrack participated in the annual Business in the Environment Survey of FTSE 100 companies for the second year. The survey assesses the level of environmental engagement which companies have achieved and in the last year Railtrack has improved its scoring from 67% to 71.2%.
- The Environment Agency is one of our key environmental stakeholders and a joint Memorandum of Understanding was published in March 1998. This agreement sets out the relationship between our two organisations ensuring constructive communication in the future.

3. NATIONAL NETWORK

This section of the 1998 NMS set out our plans for the route network, stations and depots.

3.1 NETWORK CAPABILITY

The total route kilometres open for traffic and the length of electrified lines remained broadly the same between 31 March 1998 and 31 March 1999. There were small reductions resulting from track rationalisation compensated by the reopening of some short freight branch lines.

The routes from Castle Cary to Yeovil Junction and Chester to Chirk have been cleared to carry 8' 6" containers on Megafret wagons. The routes from Berwick upon Tweed to Mossend via Shotts or Carstairs are now cleared for SB1C, a distance of over 120 miles. A 4 mile stretch of track between Lostwithiel and Carne Point has been enhanced from RA6 to RA9. The route between Perth and Inverness (via Aviemore) is now cleared for the passage of 8' 6" high containers. The routes between Grays and Tilbury, and between Ely and Peterborough have been cleared for SB1C gauge demountable loads. The route from Harwich to Forest Gate has also been cleared for demountable loads up to 2.5m wide. Class 317 electrical multiple units are now cleared to run throughout the whole route between London Liverpool Street and Norwich and also the section from Manningtree to Harwich.

3.2 CAPACITY

The NMS explained the process for identifying congested locations and included maps and tables showing the locations of current and predicted congestion. During the course of 1998/99 Railtrack has evaluated the technical options for alleviating the current and potential congestion problems identified at these locations. Following discussions with customers, funders and the Rail Regulator as part of the development of our route strategies, our conclusions were set out in Section 6.4 of the 1999 NMS.

As a result of this further evaluation and industry discussion, a number of changes in implementation timescales included in the 1998 NMS have been made and are set out in the 1999 NMS. In summary these are:

		Timescale			
	Locations identified in 1998 NMS	Unchanged	Brought forward	Put back	Completed or no longer required
Location with current congestion	15	4	6	4	1
Location with predicted congestion	11	2	2	3	4

Having completed the bottleneck analysis we are now developing these schemes in detail for discussions with customers and the Shadow Strategic Rail Authority (SSRA) .

3.3 NETWORK QUALITY

MAINTENANCE EXPENDITURE

The policy outlined on page 46 of the 1998 NMS has developed into a firm strategy that is now embodied in the new IMC2000 contract. This strategy has been developed by the in-depth analysis and investigation of current maintenance effectiveness. The new contract has been specifically developed to both optimise the delivery of effective maintenance and to provide the cost and resource transparency necessary to enable ongoing improvements. Optimum contract sizes have also been derived by analysis of both contractor and Railtrack organisations and cost structures.

Maintenance effectiveness has been actively addressed in 1998/99 by a more hands-on management approach by Railtrack and a more rigorous output monitoring regime in the form of the Infrastructure Maintenance KPIs introduced during the year. This has resulted in a jointly focused effort by Railtrack and its contractors on those critical aspects of maintenance.

Cost efficiencies have been obtained by realignment of contract boundaries in preparation for IMC2000. The expenditure which has been incurred in the year is outlined in the table below.

£m	NMS forecast	Actual	Variance
Maintenance expenditure	**700**	**694**	**(6)**

Track

The commissioning of the new generation of high-output ballast equipment has been concluded. We are awaiting HMRI approval and certain internal operational acceptance issues to be finalised. These are well advanced and are expected to be closed out by the end of August. The equipment is at a stage to enter productive work utilising midweek possession availability minimising disruption to train services.

Where sleeper condition permits, joints can be eliminated by the cropping and welding of existing track to convert it to Continuous Welded Rail (CWR). The introduction of 2 mobile flash butt welding machines has made this activity more cost effective and may accelerate the rate at which track is converted in future years.

Train Control System (TCS)

The preliminary work on TCS carried out over the past two years resulted in the placement of a contract with Alstom Signalling Limited in July 1998. This contract covers both the continuing development of TCS as a core technology for national application and detailed investigation to confirm that technology can be applied within timescales of the West Coast Route Modernisation (WCRM).

This approach has two major benefits. First, it ensures continuity for the specialist resources needed for the core national TCS system development and addresses the development risk at an early stage. Second, it allows the first application needs of WCRM to be identified early and fed back into the core national TCS development. Work has reached the stage where firm requirements have been established and preliminary reviews of the design solution undertaken. The flexibility of the TCS architecture enables a widespread national application and work to confirm this for low intensity routes is ongoing. Agreement has been reached with the Radio Communications Agency on allocation of GSM(R) frequencies for railway use and this is a major step forward for the TCS project. Plans for the establishment of a trial site are proceeding well and the site should be operational within the next 2 years.

Railtrack has been working closely with its customers to establish methods of operation for the TCS fitted railway, to establish user requirements and train fitment and maintenance methods.

Since joining the European Rail Traffic Management System (ERTMS) User Group early in 1998 we have become increasingly pro-active in the development of the Standards for an interoperable signalling system for Europe-wide

implementation. In mid 1998 it became clear that the original Functional Requirements Specification (FRS) and System Requirement Specification (SRS) developed by the group before we joined were not fit for purpose. The implementations in different European countries by different contractors would not have been interoperable. The European signalling industry have formed a grouping called Unisig to take ERTMS forward. A special working group called ECSAG has been formed by the ERTMS user group to work with Unisig to produce a fit for purpose FRS and SRS. This work is expected to be completed by October 1999.

Signalling
Our policy on signalling equipment renewals has developed over the past three years. This work has indicated that whole-life costs of signalling assets are generally optimised through targeted renewals rather than entire renewal. This approach has now started to impact on the renewals programme and in 1998/99, whilst overall expenditure is in line with plan, it has resulted in some reprioritisation of the scope of works across zones and routes.

The 1998 NMS also identified two routes which are to be renewed using new signalling technologies to the UK. Work on the resignalling of the Nuneaton to Peterborough route is expected to be completed in 2002/03. The Norwich to Cromer route is at the implementation phase and is due for completion in late 1999.

In Cab Radio systems
During the course of 1998/99, we established that the National Radio Network (NRN) can be maintained as an effective operational radio system until about 2008, which is about 4 years longer than previously envisaged. In addition the tendering process has shown that use of the public cell phone network for our operational railway purposes is not cost effective in the context of renewal options. We have therefore decided not to proceed at present with Digital Advanced Radio for Trains (DART). As such, we are re-evaluating options for the long-term renewal of NRN and Cab Secure Radio (CSR). We intend to discuss the options for developing a modern digital based approach to meeting the radio requirements for the railway with the industry during the course of 1999/2000.

Network Management Centres (NMCs)
Our studies have indicated that cost effective establishment of NMCs is most likely to occur as part of a major re-signalling programme on a route. The focus of NMCs has therefore been concentrated on WCML, and subsequent planned roll out to other routes deferred until experience with WCRM has been gained.

Plant and machinery
Following the excellent results evident from extensive trials, an initial purchase of 8 stoneblowers has been followed by the procurement of another 3 machines. Further purchases are currently under consideration. A total of 25 rail head conditioning vehicles have been procured and will become operational over the coming months.

3.4 INFORMATION SYSTEMS

Effect of maintenance and renewal work on the availability of the rail network
A joint planning process with train operators that delivers information on train service changes much earlier than has traditionally applied has been introduced. During the last year under the new process all plans for non-emergency disruptive temporary line closures have been finalised 26 weeks in advance of when they take place. This represents a considerable improvement in industry planning timescales and provides the train operators with accurate information to inform customers 12 weeks in advance of travel. The system has functioned successfully in the main but this target has been breached where engineering works have had to be rescheduled and the train operators data collation systems have had weaknesses in being able to meet the targets. We are working with our customers to ensure compliance across the whole network.

Year 2000

Work has progressed well on the Year 2000 project. Railtrack has a dedicated Year 2000 project team managing the risk to the Company's business from the millennium date change, which impacts not only internal information and business systems but also systems essential to the continuous operation of the railway. Railtrack has maintained its commitment and focus on identifying and remediating problems associated with the Millennium Bug through its dedicated Year 2000 project team, which was established in 1996.

Railtrack's extensive programme of Year 2000 compliance work has been divided into six specific areas of activity: Information Systems, Operational and Property Embedded Systems, Communications, Supplier Compliance, Business Continuity Assurance and Business Confidence Demonstration. Work has been prioritised to concentrate on mission critical business systems. It includes replacement of assets, information systems hardware and software and the replacement of systems that are reaching the end of their useful lives which would have been replaced as part of the ongoing investment programme. Remedial work programmes are scheduled to be completed, at the latest, by end August 1999. The most critical business systems will have been remedied before this date since they have received the highest priority within the programme.

To support Business Continuity Assurance, the Business Confidence Demonstration team has been established to perform a series of end-to-end demonstrations of key processes, both within and across Railtrack and other rail organisations, so that the compliance of Railtrack dependent systems can be demonstrated.

Close working relationships and the use of the Rail Millennium Programme Office (RMPO), a cross industry liaison body, are helping to establish how our customers and suppliers will continue to support Railtrack through the millennium. In September 1998 the RMPO published a pan-industry Year 2000 remedial plan covering the activities of all member parties within the rail industry.

During March and April 1999 Railtrack's Year 2000 Programme was subject to an audit by consultants appointed by the Rail Regulator to assess the rail industry's Year 2000 preparations. An announcement on 21 April 1999 indicated that the findings of the audit were satisfactory.

3.5 RENEWALS EXPENDITURE - for the year ended 31 March 1999

£m	* NMS forecast	* Actual	Variance
Track	**340**	**354**	**14**
Structures	**170**	**175**	**5**
Signalling	**200**	**192**	**(8)**
Electrification	**40**	**33**	**(7)**
Plant and machinery	**50**	**30**	**(20)**
Telecoms	**20**	**8**	**(12)**
Stations **	**260**	**250**	**** (10)**
Depots	**30**	**37**	**7**
Other	**60**	**51**	**(9)**
TOTAL	**1170**	**1130**	***** (40)**

Notes:

* The forecast figures in the NMS were rounded to the nearest £10m. Actual expenditure has been stated to the nearest £1m.

** In the 1998 NMS Backlog 3 forecast expenditure on stations was classified as renewal expenditure. It is accepted that Backlog 3 expenditure is more properly classified as enhancement. In this Reconciliation Statement Backlog 3 actual expenditure is included within enhancement expenditure and consequently not included in the

actual renewals column above. Backlog 3 expenditure amounted to £81m in the year and therefore a like for like comparison for stations renewal and Backlog 3 expenditure would be actual of £331m against a forecast of £260m.

*** With the add back of Backlog 3 expenditure, actual renewals plus Backlog 3 expenditure is £1211m against a forecast of £1170m.

During the course of 1998/99, we introduced a new process for reviewing renewal proposals to ensure that as far as possible, decisions on the timing and scope of renewal are being taken on a consistent basis across the network. The process has also focused on ensuring renewal decisions are based on our best understanding of the way our assets deteriorate and the most cost effective way of renewing these assets. Although overall expenditure has remained broadly on plan, the impact of the process has started to re-shape the priority of works at zone and route level. The basis for any significant movements at the zone and route level are set out within Sections 4 and 5 of this statement.

Renewals expenditure has remained broadly in line with that forecast in the NMS with the main exception of stations. The renewals and Backlog 3 expenditure made on stations has increased significantly on that forecast, primarily due to the advancement of the SRP scheme. This additional expenditure can be seen to have tangible benefits with the target at the year end being exceeded with the scheme 57% complete.

3.6 CONDITION, PERFORMANCE AND RELIABILITY

PERFORMANCE AND RELIABILITY: DELAYS PER TRAIN MOVEMENT

Passenger trains	**1997 / 98 (Per 1998 NMS)**	**NMS forecast For 1998/99**	**Actual 1998/99**
		% Change	**% Change**
Track and structures	23.2 secs	(3.4)	7.0
Power supply	2.4 secs	(2.4)	(21.5)
Control system	16.0 secs	(3.3)	(8.6)
Vandalism / Acts of God	5.0 secs	(2.7)	(10.8)
Subtotal (Railtrack Infrastructure)	**46.6 secs**	**(3.2)**	**(1.8)**
Other causes *	21.4 secs	(2.6)	23.2
TOTAL *	**68.0 secs**	**(3.0)**	**7.4**
Train operator caused delay	43.2 secs		
TOTAL	**111.3 secs**		
Freight trains			
Track and structures	97.0 secs	(4.4)	(4.5)
Power supply	10.8 secs	(2.9)	(66.1)
Control system	29.0 secs	(3.0)	(15.2)
Vandalism / Acts of God	6.4 secs	(5.2)	(14.3)
Subtotal (Railtrack Infrastructure)	**2 min 23.2 secs**	**(4.1)**	**(11.1)**
Other causes *	1 min 44.4 secs	(1.6)	(4.4)
TOTAL *	**4 min 7.6 secs**	**(3.0)**	**(8.4)**
Train operator caused delay	14 min 48.0 secs		
TOTAL	**18 min 55.6 secs**		

Note * Delays due to "other causes" shown in this table include both Railtrack non-infrastructure delays and those caused by one operator's trains delaying another operator. The latter worsened markedly during the year as a natural consequence of growth.

More challenging performance targets for 1998/99 were agreed with the Rail Regulator in July 1998 after the publication of the 1998 NMS. The 'sub-total' % improvement target for both passenger and freight was increased to 7.5%. The amended target was substantially exceeded in respect of freight services but not achieved for passenger services. Strenuous efforts will continue to reduce delay under Railtrack's control.

During 1998/99, Railtrack introduced its Process for Performance Improvement (PfPI), which is described further below and which included improved recording of delay minutes. The table, on the previous page, shows the reconciliation of actual results against NMS plan for 1998/99 using the recording process in place at the time of the 1998 NMS. The key infrastructure related delays per train (the "subtotal" lines in the table) were 1.8% better year-on-year for passenger, and 11.1% better for freight. Within these totals, the track and structures categories performed relatively poorly, having been affected by the severe flooding, particularly in the Great Western, Midlands and Scotland zones. By contrast the other categories of infrastructure delays improved markedly.

% of scheduled train movements
(other than empty passenger movements) for which the network was available

Passenger trains	99.7	99.7	**99.7**
Freight trains	99.9	99.9	**99.7**

Cancellations due to the infrastructure rose modestly in 1998/99, also impacted by the extreme flooding conditions. The share of trains cancelled due to infrastructure related causes was 0.3% for both passenger and freight trains.

At the start of 1998, Railtrack embarked on a new phase in its performance management including establishing rigorous new continuous improvement processes. A major initiative (Project Prompt) was launched, bringing together a cross-zonal performance team, supported by external consultants. The objective is to engineer a fundamental shift in performance management from a reactive approach to a planned, systematic style driven by clear measures and informed prioritisation. This focuses on an enhanced understanding of the root causes of delay, down to individual asset and component level, and the identification of the critical locations and "golden assets" which potentially account for a disproportionately high share of delays, and where improved infrastructure reliability is particularly important. Having identified these locations and assets, we are focusing investment resources better and are working with our contractors to provide enhanced maintenance.

Over the last year this approach has been bolstered by our (PfPI), creating accountability for delays across the operational management of the company. Local managers are leading in the process of generating initiatives to reduce delays, and then hold "budgets" of improvements to delays for which they are held accountable.

On the new PfPI measurement basis Railtrack direct delays per passenger train improved by 2% in 1998/99, while those to freight trains improved by 16%. There was an increase of 3.3% in the number of passenger trains. Due to extensions to existing services as well as the addition of new services, the total train miles run increased by 2% more than the number of individual train movements, making the effective performance improvement for passenger trains almost 4%.

ASSET RENEWAL RATES - for the year ended 31 March 1999

	Units	NMS forecast	Actual	Variance Actual	Variance %
Rail renewed	**Km pa**	**421**	**397**	**(24)**	**(6)**
Sleepers renewed	**Km pa**	**524**	**471**	**(53)**	**(10)**
Ballast renewed	**Km pa**	**617**	**583**	**(34)**	**(6)**
Signals renewed	**Km pa**	**300**	**409**	**109**	**36**
Number of structures renewed	**Spans**	**91**	**84**	**(7)**	**(8)**

Rail Renewed
The volume of rail renewal was at 94% of the NMS forecast with the actual volume of work being 397km. It should be noted that the predicted actual figure for 1998/99 of 524km contained in the 1999 NMS is incorrect due to double counting within 2 zones.

Sleepers Renewed
The volume of sleepers renewed is about 10% lower than in the original plan following reassessment of the planned work to ensure consistency of approach throughout our network.

Ballast Renewed
The volume of ballast renewed was broadly in line with plan.

Signalling
The table above shows a 36% increase in signals renewal against forecast. However, the 1998 NMS forecast was understated against plan due to an omission of one zone's data from the forecast. As such, the volume of signalling renewed in the year is broadly equivalent to the plan

Structures
In the year 1998/99 on going development of our structures review process enabled more refined decision making to be applied to individual structures. As a result, a number of planned full renewals were re-scoped as major refurbishment and maintenance schemes. Consequently the total number of reconstructions were lower than forecast.

TEMPORARY SPEED RESTRICTIONS - for the year ended 31 March 1999

Type	NMS forecast	Actual	Variance
Average number of 'Condition of Track' TSRs outside of the Rules of the Route	**154**	**158**	**4**
Average number of TSRs that are of more than three months duration outside of the Rules of the Route	**152**	**129**	**(23)**
Average number of 'Condition of Structure' TSRs outside of the Rules of the Route	**43**	**42**	**(1)**

In general actual TSRs were in line with forecast with TSRs of more than 3 months duration less than anticipated. The actual data updates the year end forecast in the 1999 NMS.

NUMBER OF BROKEN RAILS - for the year ended 31 March 1999

Type	NMS forecast	Actual	Variance
Number of broken rails	**600**	**937**	**337**

This measure records the number of occasions when rails break through their full depth, or when pieces become detached.

The last year saw a significant increase in the number of broken rails which meant that we failed to meet our own challenging targets in this area. The incidence of broken rails reflects several factors, including traffic tonnage, dynamic loading from vehicles (particularly associated with wheel flats) and maintenance standards. We have now completed a review of the underlying causes of broken rails and the best course of remedial action. As a result we have announced our intention of spending an additional £40m to tackle the problem over the next two years. This additional funding will improve our ability to detect and replace the broken rails through a programme of:

- re-railing in tunnels
- other targeted re-railing; and
- additional use of the ultrasonic test unit.

We shall also be implementing improved prevention including:

- better detection of wheel flats
- upgrading insulated block joints
- cold bolt hole expansion; and
- rail grinding.

The projected level of broken rails has been reviewed and the forecast going forward has been adjusted to reflect the higher 1998/99 base.

3.7 NETWORK DEVELOPMENT

3.7.1 Freight

The 1998 NMS set out our three main priorities in building our plans for rail freight - to meet the immediate requirements of freight customers, to respond to the needs of the wider freight industry and to develop the network to the longer term requirements of the freight transport industry.

To respond to these opportunities we started work on developing a Freight Routeing Strategy and launched a Ten Point Plan. A summary of the progress is set out below with further detail provided in Section 7 of the 1999 NMS.

Freight Routeing Strategy

We set out five main phases to our Freight Route Strategy. Some of these were already in progress while others depended on our customers providing more detailed forecasts of their requirements for capacity and capability. Various forecasts had been provided from late 1997 onwards following an initial request from Railtrack about FOC requirements for the WCML as an element of the PUG discussions. Detailed analysis of the potential demand for the WCML corridor had also been undertaken as a part of the Piggyback Consortium proposals. However the most comprehensive description of FOC requirements in a form that Railtrack could use for detailed planning purposes was not received until the summer of 1998 and was then finalised in September 1998 as a key element of the "Reasonable Requirements" consultation process.

Phase one - key routes.
Work on the major route corridors has been accelerated and resulted in the following:

- the proposed development of a network of routes at W10 gauge, with affected structure moved to W11w gauge wherever practical, subject to grant funding in most cases
- clearance of the WCML to W10 at Railtrack's cost by December 1999. The section from Daventry to Mossend was cleared on schedule by April 1999
- submission of a grant application to DETR to clear two routes between the Channel Tunnel and London to W10 gauge
- preparation of further grant applications for the routes between Southampton and the WCML and Felixstowe direct to the WCML avoiding London. It is expected that these will be submitted later this year
- finalisation of costs and market data for other route sections listed in the 1998 NMS prior to the preparation of further grant submissions.

The 1999 NMS (page 91, Table D) set out the programme for the execution of this work.

In developing international routes we contributed fully to the London/Sopron Trans European Freight Freeways (TERFF) initiative and helped EWS develop a new service between the UK and Germany.

Phase two - document current capability
We have improved the processes for responding to customers' requirements for information about the capability of the network by giving greater focus at zone level to requests for gauge clearance and by providing a central co-ordinating role through the appointment of a National Gauging Engineer. We have since finalised a new project to measure the loading gauge of the network and linked this to changes to our maintenance processes to ensure that the track is datum plated and kept within gauge. We expect it will take three years to cover the whole network.

Phase three - development of freight terminals
We have streamlined the processes for developing new terminals and our market research would suggest that these changes have been received favourably. The project database remains at over 300 terminals with a further 20 coming on stream in the year to March 1999. As the 1999 NMS noted particular features were:

- for the Royal Mail, the opening of new terminals in Warrington and Shieldmuir, the commencement of work at Bristol Parkway and the development of plans at Peterborough
- the reopening of the Gedling, Heathfield and East Leake branches to freight traffic
- the return of rail freight for the first time in years to locations such as Pembroke Dock, Paignton, Hicks Lodge, Rawdon, Renishaw Park, Brynteg, Broomhill, Rhymney, Lowestoft, Carmarthen, Newton Abbot, Plymouth Friary and Grantham
- working with developers of major new intermodal terminals at Colnbrook, Tyne Dock, Swindon, Cardiff, Bristol, Aberdeen and Southampton
- the publication of the third edition of our Freight Connections Guide which included for the first time contact details of Local Authorities who have identified locations for the future development of rail freight

We also noted that it was unlikely that the industry would see any traffic from about 15 other schemes that we have been involved in developing[1].

Phase four - secure former route sections and relevant land. We continue to review all potential disposals and developments of our own property to ensure that the needs of the operational railway are protected. During the year we reviewed the BRB's property portfolio and acquired eleven sites from the BRB's property portfolio. We have also identified a further fifteen route sections from our own and BRB's portfolios that we expect to reopen in the next few years.

We have begun to acquire other sites from outside the railway industry in anticipation of future demand. In 1998/99 we purchased a further four sites including the 280 acre former colliery at Parkside near Wigan and adjacent to the WCML, north Transpennine route, M6 and M62.

[1] e.g. Corcikle, Buxton URS, Agecroft, Tilbury, Clitheroe, Burntisland, Brandon, Saltley Gasworks, Castle Donnington, Tasker Street, Shrewsbury, Swindon scrap sidings, Darlaston, Northampton, Nuneaton

Phase five - additional development. We have continued with the work programme with the Highways Agency. With respect to freight this is now focused on a joint study of the A14 route corridor and the requirements for a network of road/rail intermodal terminals.

Progress With Our Ten Point Plan

The progress we made in the year with our Ten Point Plan was set out in the 1999 NMS (Section 7.7, page 92) and is summarised below.

1. Reduction in Costs On the basis that we have previously measured our costs, we continued to make progress in reducing them disproportionately compared to the increase in volume. Our unit prices to freight customers reduced by 8.0% while our unit costs reduced by 9.5%

2. Better Routes for Freight In publishing the Route Directory in CD-ROM format and on the Internet we completed the first stage of documenting the current characteristics of the network. As noted above we began work on assessing the network's potential capability and set out in our Freight Route Strategy how we want to improve it further. We also introduced the "Freightway" concept, a domestic version of the TERFFs promoted by the EC, to protect existing capacity on the network in anticipation of market demand.

3. Service Improvements - reduction in delays We set ourselves a target of 4.1% improvement in delay minutes per train due to Railtrack infrastructure. Subsequent to the publication of the NMS we agreed with ORR to increase this target to 7.5% per train movement. Actual improvement achievement was 11.1% which substantially exceeded the target

4. Service Improvements - reduction in transit times We set ourselves the target of providing up to 20 new paths at 75 mph or greater a year. Since then our customers have introduced 25 new trains at such higher speeds and we have identified 22 additional return paths.

5. Development of Freight Terminals We undertook to provide more information on how to develop terminals and to protect sites. We have updated the Freight Connections Guide and acquired additional sites.

6. Piggyback Project With the launch of services for Parcelforce and Tankfreight by EWS and Freightliner respectively Piggyback traffic is now in operation. As described above we started to implement a gauge enhancement programme for the widespread introduction of more higher gauge traffic.

7. Improved Project Management We met our commitments to streamline our processes for developing rail freight-related projects. We simplified our project management requirements, opened up the market to new contractors and methods and improved accountability for delivery.

8. Open Access We are continuing to work with several parties who have expressed interest in entering specific areas of the rail freight market. Over the last couple of years we have dealt with 30 significant enquiries.

9. Systems Development We also introduced new invoicing systems and worked with EWS on its introduction of its new train control system to support the development of wagon load traffic.

10. Code of Practice A review of the Code (published September 1997) with the key industry parties during the year did not identify any necessary changes in the Code or its implementation.

3.7.2 Passenger services, stations and depots

CURRENT AND PROJECTED STATION FACILITIES - at 31 March 1999

Category	NMS forecast	Actual	Variance
Number of stations	**2,501**	**2,499**	**(2)**
% of stations with unassisted wheelchair access	**45**	**46**	**1**
% of stations with toilets which have toilet facilities modified for wheelchairs	**39**	**39**	**-**
% of stations with automated visual information facilities	**25**	**27**	**2**
% of stations with aural information facilities	**70**	**70**	**-**
% of stations with car parks	**63**	**64**	**1**
% of stations with taxi rank waiting spaces provided	**25**	**24**	**(1)**

The 1998 NMS, for the first time , introduced measures of the facilities at stations. The above table reports on forecasts made in the 1998 NMS. During the course of 1998, a survey was undertaken of the actual facilities at stations covering a much wider range of facilities than those set out in the 1998 NMS. The results of this survey and forecast improvements in facilities over the next 10 years is included in the 1999 NMS and replaces the basis of reporting set out in the 1998 NMS.

The increase in the number of stations reported on in the 1998 NMS by 7 reflects the opening of stations at Brunswick, Euxton Balshaw Lane, Dalgety Bay, Shirebrook, Langley-Whaley Thorns, Creswell, Whitwell, Drumfrochar and Conway Park. This offset by the closures of two stations at Sinfin Central and Sinfin North.

3.7.3 Station Regeneration Programme

The Station Regeneration Programme (SRP) is tasked with addressing the inherited legacy of maintenance neglect at all stations and depots throughout Britain within a five year period ending on 31 March 2001.

Following agreement with our Train Operating Company (TOC) customers over station/depot priorities we were able to publish in the 1998 Network Management Statement details of the target completions programme for both stations and depots as follows:

Forecast for SRP Completions (1998 NMS)

	31 March 1998	31 March 1999	31 March 2000	31 March 2001
Stations	24%	52%	82%	100%
Depots	6%	54%	75%	100%

By 31 March 1999 we had achieved completions as follows:

Stations	1425	No. - 57 % of stations portfolio
Depots	39	No. - 45 % of depots portfolio

The shortfall from target completions on depots was as a result of continued dialogue with our TOC customers regarding their rolling stock procurement and maintenance strategies. This meant we were able to concentrate

resources on stations which helped us exceed the target. We remain committed to complete the regeneration programme by 31 March 2001.

Access for disabled people
We have improved access for disabled passengers at stations this year, surpassing the targets set in the 1998 NMS. At 31 March 1999, there were an additional 136 stations (plus the new stations built this year) across the network with unassisted wheelchair access from the street, and a further 17 accessible toilets. In addition many improvements have been made for disabled passengers who do not use wheel chairs, including induction loops, platform edge tactile paving, and better handrailing.

Most importantly we have been consulting this year on our strategy for providing access for disabled people across the whole network. Two consultation phases are complete and the feedback has been very encouraging.

- 330 respondents expressed views in a number of areas
- The majority expected the network to be fully accessible within 10-20 years
- Fewer than 10% respondents disagreed with any of the objectives in the consultation document
- A lot of valuable suggestions were made by respondents about implementation of policies - these will be subject to further examination
- Respondents thought that the highest priority should be given to large stations (33%), to prevalence of impairment (23%) and to localities where there was no alternative accessible transport(15%).

We will conclude a more sophisticated methodology for setting priorities incorporating the above feedback that will be included in our forthcoming policy statement which is due to be published in the Autumn of 1999. This will set out our policy to deliver the Rail Regulator's Code of Practice, reasonable outputs from the policy, and the costs for timescales to implement policy.

3.7.4 Major stations

The development at each of the major stations is discussed in Section 5 in the route strategy to which they are affiliated.

3.7.5 Depots

The performance against the depot regeneration programme targets outlined in the 1998 NMS are discussed under the Station Regeneration Programme.

Development of the depots
The 1998/99 year saw tangible evidence of our customers beginning to address their long- term needs, especially where the introduction of new fleets is the driver of determining long term need.

Virgin Trains (VT) have assigned the 6 Light Maintenance Depots (LMD) it operated to West Coast Traincare Limited for maintenance and servicing of the existing and future fleets and in readiness for the infrastructure works required for the advanced tilt trains.

Bombardier, with who VT have contracted for the build, supply and maintenance of the Cross Country new fleets, are looking for a site in the Midlands to establish their own LMD.

Maintrain, a subsidiary Company of the National Express Group, have been assigned the LMDs at Leeds Neville Hill and Derby Etches Park, formerly operated by Midland Main Line. They are in discussion with us as to the future contractual relationship.

Many other customers have shared their aspirations with us for their depots in terms of new or improved facilities required to maintain and service their imminent new trains. Connex are contracting with Adtranz for build, supply and maintenance of a new fleet; First North West and Scotrail with Alstom; Northern Spirit with Siemens. A

mixed picture is emerging as to whether these manufacturers will be using their own depots or operating on existing LMDs; Adtranz is in the former category; the others are in the latter category. The relationship between the TOCs and the manufacturers will not be uniform: some will take on the operation of the depots, some will be maintaining and servicing the new fleets within depots still operated by the TOCs - at least initially. The situation regarding operational responsibility will emerge over the next year.

RENEWAL AND ENHANCEMENT SCHEMES AT DEPOTS

Depot	Forecast timescale (1998 NMS)	Completion date now envisaged
Birmingham Soho	1998/99	Completed
Birmingham Tysley	1998/99	Completed
Nottingham Eastcroft	1998/99	Completed
London Bounds Green	1998/00	Summer 1999
Leeds Neville Hill	1998/00	April 2000
Edinburgh Craigentinny	2000	Completed
Chester	2000	Spring 2000

The development of the depots outlined in the NMS has been as forecast and all are on schedule to be completed by their initial forecast date.

CURRENT AND PROJECTED DEPOT FACILITIES - at 31 March 1999

	NMS forecast	Actual	Variance
Number of light maintenance depots	**88**	**88**	**-**
Number of carriage washers	**74**	**74**	**-**
Quality of carriage wash provided	**➚**	**50.4**	**N/A**

➚ No forecast was submitted for the quality of carriage washer. The quality of the carriage wash is surveyed by the independent consultancy, Scientifics Limited, and the results are used as the data source for the derivation of the quality index in the table above. The rating gained when the survey was conducted in the 1997/98 period was 37.

3.7.6 Expenditure and major schemes

ENHANCEMENT EXPENDITURE

£m	* NMS forecast	* Actual	Variance
Track	**30**	**34**	**4**
Structures	**10**	**16**	**6**
Signalling	**20**	**28**	**8**
Electrification	**10**	**7**	**(3)**
Plant and machinery	**0**	**13**	**13**
Telecoms	**10**	**1**	**(9)**
Stations **	**40**	**154**	**** 114**
Other specific enhancements	**10**	**21**	**11**
TOTAL	**130**	**274**	***** 144**

Notes:
* The forecast figures in the NMS were rounded to the nearest £10m. Actual expenditure has been stated to the nearest £1m.

** In the 1998 NMS Backlog 3 expenditure on stations was classified as renewal expenditure. It is accepted that Backlog 3 expenditure is more properly classified as enhancement and is shown as such in the actual figures stated above. Backlog 3 expenditure amounted to £81m in the year and therefore a like for like comparison for stations enhancement expenditure would be £73m against a forecast of £40m.

*** With the £81m adjustment for Backlog 3 expenditure, the excess expenditure against plan is £63m. The level of enhancement expenditure in the year has increased substantially on the NMS forecast. The movements within the asset categories is small, with the exception of stations, and are largely affected by local decisions on prioritisation of works. The basis for these movements are explained within Sections 4 and 5 of this statement.

Expenditure on stations has benefited from an increase being applied to the Station Regeneration Programme which has led to the an outperformance of the SRP target set for the year end. In addition the movement within stations has been increased by the works undertaken at London Paddington where £38m has been spent in the year which was not included in the 1998 NMS.

SCHEMES IN PROGRESS

Name and description of scheme	Latest position
West Coast Main Line route modernisation	The Regulator gave his approval to the Virgin West Coast deal, subject to four capacity reviews being undertaken by Railtrack :- Euston - Rugby (slow lines) Coventry - Wolverhampton Cheadle Hulme - Manchester Route Wide freight These studies are ongoing and their conclusions are being discussed with our industry partners. Further developments are discussed within Route 1 of this document with the long term vision of the scheme reviewed in the 1999 NMS.
Thameslink 2000	The announcement in January 1998 that the promoter of the CTRL project was unable to proceed caused significant delay to Thameslink 2000. In conjunction with industry partners, we considered a range of options to establish the optimum means of progressing the project either with the CTRL scheme or as a separate project. As the review identified a number of design changes which are likely to be beneficial, the Secretary of State has delayed an announcement regarding the possibility of a public inquiry into the project until 9 December. We have continued development of those parts of the project unaffected by the proposed design changes. Her Majesty's Railway Inspectorate responded positively to our proposals for a signalling system to deliver the specified capacity through the core section of the route, between Blackfriars and St.Pancras. We have worked closely with the Franchising director to develop the train service specification. Negotiations have been undertaken with a number of objectors to the Transport and Works Act (T&WA) submission resulting in some objections being withdrawn. Progress has also been made with the significant objections to, for example, the designs for the Borough Market Viaduct and the Blackfriars Station roof, the level of train service into Charing Cross and interchanges with London Underground.
Leeds area infrastructure renewal and enhancement	We are now on site with work for the Leeds 1st enhancement project with completion targeted for 2001/02. This scheme has been progressed through customer review, authority and contract award since the 1998 NMS. This work will deliver a major increase in capacity and journey time improvements for the Leeds west approaches. These benefits are detailed in the 1999 NMS. We have already completed the construction of the additional platform to allow additional London services.
Woking and Surbiton areas re-signalling	The signalling renewal has been completed.
Dartford re-signalling	Completion is scheduled for 2001
Manchester Victoria area re-signalling	The scheme, to renew signalling, track and structures in the Manchester Victoria area, was substantially completed and commissioned on time in August 1998.

Forth Bridge	No significant change to the work scope has taken place since the project was detailed in the 1998 NMS. Points to note are: Because of very high winds and exceptional rainfalls the rate of work and hence the expenditure was less than planned over the last twelve months. At present it is still expected that the works will be completed on schedule, although provision has been made for work to take place in 2002/03 against the possibility of a further period of bad weather. The opportunity was taken to install a millennium count down clock on the structure which was unveiled by the Prime Minister.
Guildford re-signalling	The signalling renewal has been completed.
North East England signalling rationalisation	We have reviewed the case for the scheme and at present it is not cost effective for us to progress the rationalisation. We are committed to the Tyne and Wear extension which addresses a significant section of the route. Additionally, all of the required renewals will be addressed.
Conway Park Birkenhead	The new station is open and fully served by Merseyrail Electrics.
Scottish signalling renewals	The project to rationalise Scottish signalling has been re- evaluated resulting in reduced programme of work. Phase one based on Glasgow Queen Street and Cumbernauld has continued as set out in the 1998 NMS. Commissioning of stage one was completed on time and to schedule over Christmas and New Year of 1998/99. Stage two was commissioned over the 1999 May Day Bank Holiday.
Taff Vale re-signalling	The scheme was completed in October 1998.
Chiltern Line	The scheme has been completed.
Luton Airport Station	We have had major land and property issues with the local authority, affected land owners and retailers. This has led to an escalation of costs and project delay - especially relating to the car park. The revised completion date is for opening the station in Winter 1999.
East-West Rail	Together with a consortium of 25 Local Authorities we continue to work to develop a business case and secure funding. Working with OPRAF, we are considering a phased implementation, possibly starting with the west end of the route between Oxford and Bedford.
West Anglia Route modernisation	Now London - Stansted Upgrade. We have let contracts for the renewal of signalling and overhead line equipment in the Hackney Downs area and are developing the design for the rest of the scheme between London and Elsenham.
Heathrow – St.Pancras new service for BAA	The scheme is now called "Northern access to Heathrow". The scheme is described in the 1999 NMS and involves substantially more capacity enhancement, including additional tracks between Airport Junction and Southall and grade-separated junctions, to provide for a total of 30 paths/hour between Airport Junction and Paddington to accommodate operators' growth aspirations not apparent at the time of the 1998 NMS, together with the proposed 4 trains / hour Heathrow - St Pancras. The scale of amendments to the scheme have increased the timescale of the full scheme to 2006 and the expected cost.
London Bridge SB signalling renewals	This project has been re-titled to "Thameslink Associated Signalling Works" to reflect the effects beyond the London Bridge area. The work is planned to take place concurrently with the Thameslink 2000 Scheme between 2002 and 2006. The cost is currently under evaluation.
Freight Routeing Strategy	The development of the strategy is discussed in the 1999 NMS in Sections 7. Section 3 of this statement reviews the progress made in 1998/99.
Great Western routes train control system	Now described as "Great Western routes Signalling". Phase 1 and 2 are now due for completion in 2008/9.

Sunderland-Tyne and Wear Metro extension	We have successfully reached agreement with NEXUS on a detailed and costed proposal to complete this scheme. We are now supporting NEXUS to achieve agreement with the ORR and to secure funding from Europe and other sources.
East Kent	Evaluation of the condition of signalling in North and East Kent indicates that the target completion date should be 2011.
Arun Valley re-signalling	Reassessment of the condition of the signalling in this area has established that only the equipment in the Horsham area is in need of attention and a feasibility study is nearing completion. Complete re-signalling is the currently preferred option but with options for life extension being evaluated.
Croxley Link	The 1998 evaluation study was completed, but no subsequent agreement on the development of the scheme has been reached with the other parties.
Feltham / Wokingham area re-signalling	Assessment of the condition indicates a target completion date should be after 2008.
Saltley re-signalling	The scheme has been replaced by life extension works (1999/2000 - 2002/03) but is dependent on West Coast resignalling projects that are to take place at, or around, the same time.
Glasgow – Gourock / Wemyss Bay Route modernisation	This project was originally seen as an opportunity to modernise all of the equipment on Glasgow - Gourock / Wemyss Bay routes. Further evaluation has indicated that there is, however, no requirement to improve capacity or to carry out wholesale rationalisation of Shields Junction. There is however a need to carry out the signalling, telecom and overhead line renewals in the original project. Implementation of the renewal of the signalling equipment is now planned to take place from 2002 to 2005 with overhead line renewal from 2004 to 2008.
Derby re-signalling	Replaced in the 1999 NMS by "Derby PSB - life extension works" which is planned to run from this financial year to completion in 2003. We have established piecemeal renewal of different parts of the signalling systems, rather than the complete resignalling scheme that was included in the 1998 NMS, provides the most cost effective solution to sustaining the system. We are currently in development stage major works, with the implementation of the scheme anticipated to start next year.
Basingstoke re-signalling	The evaluation has been completed. The condition at Basingstoke confirms that renewal will be needed with a target completion of 2006.
Dorset Coast re-signalling	Development has continued in the year. A contract will be let shortly with implementation commencing in 1999, and completion in 2001.
Portsmouth area; Farnborough area; Farncombe – Havant	Portsmouth area - The evaluation has been completed. The condition at Basingstoke is better than had previously been assessed, this has enabled targeted renewals to be progressed. These will be at the end of 2000/01. A full re-signalling scheme will be progressed with a target completion of 2005. For both Farnborough and Farncombe -Havant area- Reassessment of the condition of the signalling equipment has concluded that re-signalling is unnecessary until after 2004. Some investment in life extension of the existing systems will be undertaken in the short term.
King's Cross – Peterborough signalling renewal	This scheme aimed to improve capacity and performance on this route section. These requirements have been fully incorporated in the ECML (Route 2) upgrade scheme as detailed in the 1999 NMS.
North London Lines re-signalling	We have nearly completed a major study into the options for this route, which will underpin our forward investment plan. Pending this, we have assumed work will start in 2006.

Bidston – Woodchurch electrification	The scheme has been under evaluation in the year with a feasibility study being completed. It is anticipated that detailed design works will be undertaken in the next 12 months.
North Transpennine route line speed and capacity increases	Extensive analysis and investigation have been completed. The outline scheme in the 1999 NMS is now being developed as part of our submission for discussion with SSRA later this year.
Colchester – Clacton re-signalling	We are studying the case for renewal of signalling equipment, with electrification and track upgrades where appropriate. Work is planned to commence in 2002/03, with possible completion in 2005.
Larkhall Branch new service	The scheme forms one half of a package providing a new through Glasgow service. The other half is to provide a new chord line between Anniesland and Maryhill with an additional station. Tender invitations have been issued. Work is planned to commence in 1999/2000.
Trent re-signalling	The scheme was replaced in the 1999 NMS by "Trent PSB - life extension works" with completion in 2003. We are currently in development stage major works, with the implementation of the scheme anticipated to start next year.
Aberdeen – Inverness signalling renewal	The development has now been evaluated and is not going to progress as a one off stand alone scheme. Particular elements are being taken forward as individual proposals to assist performance, to meet customer needs or as a renewal item.
Gospel Oak – Barking route improvements	A study is currently being undertaken to investigate improving the link to the ECML and to examine the speed and weight restrictions on the Barking - Gospel Oak route. This report is due to be completed by September 1999.
Penzance – Bristol route re-signalling	The TENs feasibility study has been completed and options are now being evaluated in conjunction with operators.
Glasgow Central SB renewal	This scheme has been evaluated and is progressing as a renewal package together with the Polmadie and Rutherglen signalling schemes. These will improve performance/reliability and therefore benefit capacity. Work starts in 1999/2000 and is due for completion in 2002/03.
Tay Bridge	The assessment as indicated in the 1998 NMS has continued. It is expected that work will commence in 2000/01 with substantial completion in 2002.
Doncaster – Leeds capacity enhancements	The scheme is now included in the ECML upgrade studies.
Glasgow Queen Street station	Evaluation work is completed. Work started in the autumn of 1998 to renew the roof. Completion was due to be completed by December 1999, however this has been brought forward to August 1999 to allow an un-impeded introduction to ScotRail's new 15 minute interval service between Edinburgh and Glasgow in September 1999.
Medway Valley re-signalling	Assessment of the condition indicates a target completion date should be 2007.
Feeder stations: Carlisle to Glasgow	The evaluation has been carried out. The work has identified that eight feeder stations will need to be replaced over the next ten years. This programme will commence this year.
East Midlands Parkway Station	Once Midland Main Line has completed their passenger demand studies we can assess with them the viability and details of the proposed new station.

Banbury – Leamington re-signalling, capacity and line speed improvement	This is now part of the "Virgin Cross Country" upgrade scheme. The enhancement proposed includes the installation of two intermediate block signals, one for each direction, along with additional track circuits or axle counters. Our current aim is to have the works complete for the 2003 timetable subject to finalisation with the customer.
Langley –Twyford track layout alterations	This scheme is now being evaluated as an option in the Great Western Upgrade (GWUG). This is referred to as 'Line speed improvements - Great Western Main Line' in the 1999 NMS. The timescale for completion is 2003.
Reading track layout alterations	Phase 1 of this scheme is now complete. Phase 2, which will include additional platform capacity and improved access from the west, is being developed and is currently targeted for completion in 2003.
Ely – Peterborough re-signalling	This scheme has been postponed because the signalling is in better condition than at first thought.
Holloway – Alexandra Palace capacity improvements	The scheme is now included within the ECML upgrade studies.
Reading area capacity increase including underpass	The Reading underpass re-opening is not considered necessary for the emerging freight routeing strategy. Other capacity improvements will be achieved through Phase 2 of Reading track layout alterations described above.
Barrhead – Kilmarnock capacity and line speed improvements	A feasibility study into route speed improvements by improving capacity and increasing line speeds is now complete. Strathclyde Passenger Transport are reviewing the options with a view to applying for funding during 1999.
Rhymney Valley capacity enhancement	The scheme is subject to evaluation. The planned date for completion is 2004.
Bath – Bristol – Severn Tunnel Junction – Cardiff	The scheme is covered under GWML route strategy on pages 160-165 of the 1999 NMS: Bristol Temple Meads additional platforms, 2001, Severn Tunnel additional intermediate signal section, 2001, and Filton Junction remodelling, 2003, are the key elements of the capacity improvements planned.
Allerton Interchange Station	The feasibility study into the construction of a new interchange station at Allerton has now been completed on behalf of the customer, Merseytravel PTE. Instructions are now awaited from the PTE as to whether they wish to proceed with the project.
Cardiff Central	The scheme is now due to be completed in 1999. The scheme now includes an additional platform to cater for the Rugby World Cup and extensive refurbishment of Central Square.
Birmingham ICC Station	We are awaiting confirmation of third party funding to enable the scheme to progress.

3.7.7 Changes to network capability

CHANGES TO NETWORK CAPABILITY - in the year ended 31 March 1999

	At 30/09/97	NMS forecast change	Actual change	Variance
Electrified Track kilometres				
Electrified track available – (running lines: overhead systems)	7,545	-	3	3
Electrified track available – (running lines: third rail systems)	4,431	-	-	-
TOTAL ELECTRIFIED TRACK AND INCREMENTAL CHANGE	**11,976**	**-**	**3**	**3**
Track kilometres by line speed				
Maximum speed of not more than 35 mph	4,515	(6)	(32)	(26)
Maximum speed of not more than 40-75 mph	17,923	6	19	13
Maximum speed of not more than 80-105 mph	7,327	29	37	8
Maximum speed of not more than 110-125 mph	2,068	-	-	-
Maximum speed greater than 125 mph	**-**	**-**	**-**	**-**
TOTAL TRACK AND INCREMENTAL CHANGE	**31,833**	**29**	**24**	**(5)**
Route kilometres by loading gauge				
Standard freight gauge	16,286	-	3	3
8' 0" container height	12,454	15	224	209
8' 6" container height	10,283	189	230	41
Swapbody	5,349	115	329	214
9' 6" container height	-	641	* -	(641)
Piggyback	-	-	-	-
Track kilometres by axle load				
Up to 20.3 tonnes	10,868	(6)	(9)	(3)
Up to 24.4 tonnes	8,544	5	** 30	25
Up to 25.4 tonnes	12,421	30	3	(27)
TOTAL TRACK AND INCREMENTAL CHANGE	**31,833**	**29**	**22**	**(7)**

The data movement stated in this reconciliation statement has been produced on a consistent basis with the 'Network Maintenance and Renewal Quality Indicators'. As stated within the 1999 NMS the base data shown differs from that in the 1998 NMS and is more accurate. The accuracy of the movement in the year is not affected by this.

* the track relates to sections on WCML and will be completed this year

** this is inclusive of track cleared to carry RA10 as an abnormal load.

3.8 INTRODUCTION OF NEW VEHICLES ONTO THE NETWORK

As part of our Safety Case, we must formally accept and certify new or modified vehicles and locomotives before they can operate on the network. This process is jointly undertaken by us and train operators through our Rolling Stock Acceptance Board. The Rolling Stock Acceptance Board successfully accepted the following new vehicles into service in 1998:

- Heathrow Express Class 332 electric unit
- Chiltern Railways Class 168 diesel unit
- EWS Class 66 freight locomotive
- Midland Main Line Class 170/1 diesel unit
- A range of freight wagons

The following projected certifications remain subject to approval by the Rolling Stock Acceptance Board.

- Eurostar UK Class 373/2 - Electric
- London and Tilbury Southend Class 357 - Electric
- Connex South Eastern class 375 DC - Electric
- Anglia Railways Class DMU - Diesel

Interoperability

In addition to our work through the ERTMS User Group described above we are pro-actively involved in the development of the other technical specifications for interoperability (TSI's) required to give substance to Directive 96/48 EC. Our Director, European Affairs is a member of the Board of the AEIF a body set up by the Directive to produce the TSI's for ratification by the member states through an Article 21 committee.

4. ZONAL PLANS

INTRODUCTION

This section compares the forecast expenditure for each zone by maintenance, renewals and enhancements and by asset category to the actual expenditure incurred in the year. Commentary is included to explain the basis for the material movements which have occurred.

EAST ANGLIA ZONE

Forecast data at 1997/98 prices. Actual maintenance, renewals and enhancement expenditure (£m) at outturn prices.

	NMS forecast	Actual	Variance
MAINTENANCE	**70**	**69**	**(1)**
RENEWALS			
Track	30	32	2
Structures	12	10	(2)
Signalling	19	21	2
Electrification	10	7	(3)
Stations	22	21	(1)
Depots	5	9	4
Other renewals	3	1	(2)
TOTAL	**101**	**101**	**0**
ENHANCEMENTS			
Track	1	0	(1)
Structures	2	0	(2)
Signalling	0	1	1
Stations	3	9	6
Depots	0	1	1
Other enhancements	3	1	(2)
TOTAL	**9**	**12**	**3**
TOTAL INVESTMENT	**110**	**113**	**3**

Analysis of material variances

RENEWALS

Structures

We have spent more on maintaining our larger bridges than planned, but have rephased work on bridges on the Gospel Oak - Barking line, whilst we understand the results of detailed surveys carried out during 1998/99. In addition we have spent more on reactive maintenance and preventing trespass and vandalism.

Electrification

We have re-balanced our plan to focus our renewals on those areas most critical to train performance.

Depots

We have brought forward projects planned for future years to take advantage of possessions and isolations already arranged for our Regeneration Programme.

Other renewals

Our telecoms equipment renewal programme has been reviewed to develop a strategy which is better targeted on performance improvement. This has resulted in spending below levels in the NMS for 1998/99.

ENHANCEMENTS

Track

This underspend is explained by rephasing the Hitchin - Cambridge Line speed improvement project and less requests for track connections for new freight traffic than expected.

Structures

As part of the development of our national freight routeing strategy the 1998/99 plan included £2m for options to improve gauge clearance between Felixstowe and the West Coast Main Line via Peterborough. It is planned to clear this route to W10 gauge and we intend to make a grant application to cover gauge and capacity improvements shortly. It is anticipated that work will be completed for 2004/5 which will further relieve the bottleneck at Stratford on the Great Eastern Main Line.

Signalling

We have incurred some enhancement expenditure as part of the WARM (London - Stansted Upgrade).

Stations

Approximately £7m of station enhancements were shown relate to Backlog 3 expenditure which was defined as renewals in the 1998 NMS.

Depots

We have brought forward some work planned for future years to take advantage of possessions and isolations already arranged for our regeneration programme.

GREAT WESTERN ZONE

Forecast data at 1997/98 prices. Actual maintenance, renewals and enhancement expenditure (£m) at outturn prices.

	NMS forecast	Actual	Variance
MAINTENANCE	**94**	**96**	**2**
RENEWALS			
Track	60	60	0
Structures	33	27	(6)
Signalling	11	13	2
Stations	40	31	(9)
Other renewals	14	5	(9)
TOTAL	**158**	**136**	**(22)**
ENHANCEMENTS			
Track	1	1	0
Structures	1	0	(1)
Signalling	5	6	1
Electrification	0	1	1
Stations	9	54	45
Other enhancements	0	2	2
TOTAL	**16**	**64**	**48**
TOTAL INVESTMENT	**174**	**200**	**26**

Analysis of material variances

RENEWALS

Structures

Expenditure was £6m lower than forecast. This was due to rephasing and rescoping of works following a comprehensive review of the programme.

Signalling

Expenditure is shown as £2m higher than forecast, due to additional expenditure on key safety and performance schemes such as ATP (£350k), removal of flashing yellows at Slough IECC (£225k), Reading remodelling (£600k), Gloucester Z bonds replacement (£125k).

Other renewals

Expenditure was £9m lower. This chiefly comprises Telecoms £5.0m lower and Plant £3.4m lower. In Telecoms £3.5m of this difference is on renewal of major SPT concentrators and associated cables. The proposed concentrator renewals were postponed when tender prices for Oxford and Gloucester concentrators proved excessive. As a result, new technology is being assessed, and the renewals will be undertaken once this has been completed and the appropriate technology has been proved.

Stations

It should be noted that classification of renewals and enhancement expenditure has changed between 1998 NMS forecast and actuals, notably in connection with Backlog 3. To compare expenditure it is necessary to consider both enhancements and renewals together. Total expenditure on stations was forecast in the 1998 NMS to be £49.0m and 1998/99 actual expenditure (excluding Paddington - see next page) was £47m, giving a variance of £2m lower.

ENHANCEMENTS

Signalling

Additional £1m expenditure relates to the completion of the Taff Vale Phase 2 scheme during the year.

Electrification

Minor enhancement work was undertaken on Route 3, which was not identified in the 1998 NMS.

Stations

The additional expenditure relates to the Paddington station redevelopment scheme which had not been included in the 1998 NMS forecast.

Other enhancements

Higher expenditure than forecast has resulted from additional scope agreed with TOCs at Bristol Parkway Royal Mail (£135k) with European and LA grant funders for Cornwall resignalling feasibility (£110k), Taff Vale 2 resignalling for additional telecoms (£1.0m).

LONDON NORTH EASTERN ZONE

Forecast data at 1997/98 prices. Actual maintenance, renewals and enhancement expenditure (£m) at outturn prices.

	NMS forecast	Actual	Variance
MAINTENANCE	**101**	**100**	**(1)**
RENEWALS			
Track	54	48	(6)
Structures	31	28	(3)
Signalling	22	20	(2)
Electrification	2	3	1
Stations	25	31	6
Depots	5	6	1
Other renewals	8	8	0
TOTAL	**147**	**144**	**(3)**
ENHANCEMENTS			
Track	2	6	4
Structures	1	0	(1)
Signalling	3	2	(1)
Electrification	1	1	0
Stations	1	13	12
Other enhancements	4	3	(1)
TOTAL	**12**	**25**	**13**
TOTAL INVESTMENT	**159**	**169**	**10**

Analysis of material variances

RENEWALS

Track

Our review of priorities after the 1998 NMS reduced planned track expenditure on the East Coast Main Line, Midland Main Line and North East. This reduction was also exacerbated by our contractors' industrial dispute and the subsequent difficulty in reprogramming work on the ECML. The reprogrammed work will be undertaken in 1999/2000. On the other routes expenditure increased, particularly North Transpennine, over forecast following the targeting of poor track quality and rail break clusters.

Structures

Our review of priorities after the 1998 NMS of structures work produced a lower cost and more focused programme whilst still sustaining the network outputs. This is reflected in the lower expenditure on the East Coast Main Line route. In the case of North Transpennine an increase in expenditure reflected the success of this reprioritisation.

Signalling

The zone has completed a programme of renewal and re-control of a number of older signalling installations. This work has provided the opportunity to allow routes to open for traffic for extended periods. The reduction in overall expenditure is due to us identifying the opportunity to integrate the ECML interlocking renewals with the upgrade programme. To sustain the interlockings in the interim, a series of low level renewals has been put in place.

Electrification

We have spent additional money above our original plan to secure the performance of the overhead line south of Peterborough over Stilton Fen and in addressing safety issues on our Yorkshire routes.

Stations
We have successfully advanced the SRP programme across the zone leading to higher than expected expenditure levels to deliver this increased output. We have also challenged the content of the work and our contractors' costs, which for the Yorkshire routes led to a reduction in expenditure.

Depots
The increase in expenditure arose from prioritising work at Neville Hill on North Trans-Pennine and progress on this scheme was beyond our NMS forecast.

Other
The reduction of expenditure on ECML was driven by delays in agreeing specifications for customer information systems with our own customers and the re-phasing of plant renewals.

ENHANCEMENTS

Track
The increased expenditure against plan is due to advancing works at Leeds to provide an additional platform and at Ranskill to extend the freight loops. The Leeds works were advanced to meet an urgent customer need. The increased cost of Ranskill work arose from complex possession arrangements following the loss, due to adverse weather, of the original planned Christmas possessions.

Stations
The increase in expenditure is due to our acceleration of the SRP programme and the successful inclusion of a number of customer requested enhancements.

MIDLAND ZONE

Forecast data at 1997/98 prices. Actual maintenance, renewals and enhancement expenditure (£m) at outturn prices.

	NMS forecast	Actual	Variance
MAINTENANCE	**131**	**131**	**0**
RENEWALS			
Track	76	81	5
Structures	29	25	(4)
Signalling	39	34	(5)
Electrification	2	6	4
Stations	43	42	(1)
Depots	1	8	7
Other renewals	0	0	0
TOTAL	**190**	**196**	**6**
ENHANCEMENTS			
Track	11	18	7
Structures	3	10	7
Signalling	6	7	1
Electrification	2	5	3
Stations	4	22	18
Other enhancements	0	6	6
TOTAL	**26**	**68**	**42**
TOTAL INVESTMENT	**216**	**264**	**48**

Analysis of material variances

RENEWALS

Track

The overall expenditure for track was broadly in line with that included in the NMS, but varies substantially at route level. This was as a result of the reprioritisation, which occurred after the publication of the NMS.

There was also some increased expenditure on track on the WCML, such as the Euston Remodelling scheme, that was performed earlier than anticipated in the 1998 NMS.

Structures

A comprehensive review of the programme took place after the publication of the NMS. This resulted in a significant reprioritisation of the programme, as can be seen from the individual route commentaries with overall expenditure remaining in line with plan.

Signalling

The underspend against plan results from the re-phasing of some work in the West Coast route modernisation programme.

Electrification

The primary reason for the additional expenditure is the Euston Remodelling scheme being accelerated beyond those timescales anticipated in the 1998 NMS.

Depots

This additional expenditure reflects renewal work not forecast at the time of the NMS publication.

ENHANCEMENTS

Track

Significant jobs include Euston Remodelling, the Midland Main Line time-tabling works and the Chiltern Line capacity works. The major increase in expenditure being on the Chiltern Line capacity works, where works not identified at the commencement of the scheme resulted in a significant overspend during the financial year, details of which are included in the individual route commentaries.

Structures

The majority of structures enhancements have been on the WCML - as part of the upgrade works. The increase in expenditure being due to advancing some works.

Stations

At the time of the 1998 NMS the only item shown as a station enhancement was that for Luton Airport Parkway. The balance of the increased expenditure is on enhancement elements of Station Regeneration Programme.

Other

The majority of expenditure is on three depots - Soho (route 1) £1.8m; Eastcroft (route 5) £1.7m and Tyseley (route 7) £1.5m. These were not included in the NMS but were undertaken in response to customer requests.

NORTH WEST ZONE

Forecast data at 1997/98 prices. Actual maintenance, renewals and enhancement expenditure (£m) at outturn prices.

	NMS Actual	Actual	Variance
MAINTENANCE	**86**	**84**	**(2)**
RENEWALS			
Track	38	40	2
Structures	16	32	16
Signalling	28	26	(2)
Electrification	3	2	(1)
Stations	46	49	3
Depots	5	1	(4)
Other renewals	16	18	2
TOTAL	**152**	**168**	**16**
ENHANCEMENTS			
Track	4	2	(2)
Structures	0	3	3
Signalling	1	7	6
Electrification	1	0	(1)
Stations	0	8	8
Other enhancements	1	1	0
TOTAL	**7**	**21**	**14**
TOTAL INVESTMENT	**159**	**189**	**30**

Analysis of material variances

RENEWALS

Track

The companies commitment to remove all track in the poor quality band led to a re-focusing of the programme with additional expenditure of £2m. The initiative occurred after the publication of the NMS.

Structures

The zone has undertaken significantly more work on the programme of structural repairs and renewals than forecast in the NMS. There are two main reasons for the variance. Firstly the total expenditure on structures in the year on Route 1 was £10m against an original planned expenditure of £2m. This increase was necessary to ensure structures works were completed ahead of other planned works. Secondly, the zone has also been faced with a number of emergency works items, resulting from severely adverse weather conditions causing damage to the infrastructure. The total expenditure on emergency items is in excess of £4m in 1998/99, spread across the zone.

Depots

The underspend against the planned NMS figure is driven by the delay in commencement of the Chester depot renewal programme. This delay has occurred as a result of the change in franchisee for the North West, when First Group replaced Great Western Holdings. First Group sought to undertake a review of all activities in order to be confident that the plans were optimal for its own business needs, and as a result the scope and timing of the scheme changed.

ENHANCEMENTS

Track

Expenditure on the capacity improving element of the Manchester South project was less than forecast as the project was reprofiled to reduce the level of disruption. Expenditure shortfall will be offset in the current and future years as the scheme is still programmed to complete in the early part of the 2002/03 year.

Structures

The additional expenditure results from the enhancement elements of the WCRM project being brought forward.

Signalling

Manchester Piccadilly signalling improvements for platforms 9-12 was completed in the year at a cost of £6.7m. In conjunction with the scheme, the problem of permissive working on platforms 13 and 14 was also resolved at the requirement of HMRI. This had not been planned at the time of compiling the NMS, and is therefore the reason for an increase over the planned level of expenditure on signalling assets.

Electrification

Actual enhancement expenditure was less than forecast due to the extended design phase of the Manchester South improvements and Heald Green feeder station projects.

Stations

The £8m reported represents the Backlog 3 expenditure in the Station Regeneration Programme.

SCOTLAND ZONE

Forecast data at 1997/98 prices. Actual maintenance, renewals and enhancement expenditure (£m) at outturn prices.

	NMS forecast	Actual	Variance
MAINTENANCE	**79**	**77**	**(2)**
RENEWALS			
Track	23	30	7
Structures	22	23	1
Signalling	22	26	4
Electrification	5	5	0
Stations	39	36	(3)
Depots	6	3	(3)
Other renewals	15	8	(7)
TOTAL	**132**	**129**	**(3)**
ENHANCEMENTS			
Track	8	0	(8)
Signalling	1	5	4
Stations	4	17	13
Other enhancements	1	2	1
TOTAL	**14**	**24**	**(10)**
TOTAL INVESTMENT	**146**	**155**	**9**

Analysis of material variances

RENEWALS

Track

The opportunity was taken to increase the level of rail renewal in the year which led to an increase in rail renewed of over 50% against that which had been forecast

Signalling

There was an increase in expenditure on ROSS of £1.0m which represented bringing forward work from 1999/2000. An increase in the planned rollover expenditure of Motherwell wire degradation from 1997/98 plus additional work on axle counters and remote control systems at Yoker accounted for the majority of the balance in movement.

Depots

Regeneration works were deferred at the request of the customer to enable them to prepare and consider a depot strategy which subsequently led to the fall in expenditure forecast for 1998/99.

Other renewals

The level of expenditure was lower than that forecast for a number of reasons which are elaborated upon in the route information given in Section 5:

- reduced expenditure on SPT- SMA renewal
- the installation of some remote monitoring equipment was deferred
- installation of freight sidings was deferred at the customers request.

ENHANCEMENTS

Track

The schemes which have caused the shortfall in expenditure upon forecast are Larkhall, Barrhead- Kilmarnock, Glasgow Central/Polmadie and Rutherglen.

Signalling

The ROSS enhancement works were agreed after publication of the NMS and account for the movement on forecast.

Stations

Enhancement expenditure in the year of £8m took place at Edinburgh Waverley and Glasgow Central. In addition, increased expenditure on Station Regeneration Programme produced a movement on forecast of £5m.

SOUTHERN ZONE

Forecast data at 1997/98 prices. Actual maintenance, renewals and enhancement expenditure (£m) at outturn prices.

	NMS forecast	Actual	Variance
MAINTENANCE	**138**	**132**	**(6)**
RENEWALS			
Track	50	55	5
Structures	26	29	3
Signalling	38	40	2
Electrification	13	10	(3)
Stations	47	37	(10)
Depots	11	13	2
Other renewals	19	14	(5)
TOTAL	**204**	**198**	**(6)**
ENHANCEMENTS			
Track	4	0	(4)
Structures	3	3	0
Signalling	4	1	(3)
Electrification	1	0	(1)
Stations	17	31	14
Other enhancements	4	5	1
TOTAL	**33**	**40**	**7**
TOTAL INVESTMENT	**237**	**238**	**1**

Analysis of material variances

RENEWALS

Track

The additional expenditure resulted from work targeted at improving track quality.

Structures

The expenditure broadly in line with plan with some additional expenditure for trespass and vandalism measures.

Electrification

Expenditure savings were achieved by contract efficiencies and by a small reduction in conductor rail renewals resulting from improved information on conductor rail condition.

Stations

Expenditure was consistent with plan. The increased expenditure relates to the enhancement element of the Station Regeneration Programme.

ENHANCEMENTS

Track

The variance was principally due to the rescheduling of some Thameslink 2000 work.

Signalling

The variance was principally due to the rescheduling of Thameslink 2000 work.

Electrification
The variance was principally due to the rescheduling of Thameslink 2000 work.

Stations
The expenditure was consistent with the plan. Additional expenditure results from Backlog 3 expenditure on stations being included within enhancements.

Other enhancements
The variance was principally due to SWT requesting that we did not purchase DOO equipment from them and by the rescheduling of Thameslink 2000.

5. ROUTE STRATEGIES

INTRODUCTION

The rail network is broken down into 45 routes and this section examines the expenditure made in the year by route by zone. A comparison has been undertaken between the forecast expenditure and that actually made and explanations have been given to explain the material variances which have arisen. An outline of the progress which has been achieved in the year for each route strategy has been included.

Expenditure is shown in £m with the forecast data retained at 1997/98 prices as stated in the NMS and the actual expenditure stated at outturn.

ROUTE 1 – WEST COAST MAIN LINE : London to Glasgow and Edinburgh

Midland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	37.2	36.6	(0.6)
Structures	8.1	7.7	(0.4)
Signalling	27.4	12.2	(15.2)
Electrification	1.3	2.5	1.2
Stations	19.2	24.4	5.2
Depots	1.4	2.4	1.0
WCRM Passenger Upgrade 1	4.0	27.2	23.2
WCRM Passenger Upgrade 2	11.3	13.5	2.2
Other	0.0	2.0	2.0
TOTAL	**109.9**	**128.5**	**18.6**

Analysis of material variances

Signalling
The rephasing of Proof House junction remodelling and associated signalling work reduced expenditure compared to that planned when the 1998 NMS was published.

Electrification
The electrification investment was £1.2m higher than forecast in the NMS due to work undertaken in the Birmingham New Street area. In this case an opportunity to improve the efficiency of the works was taken by packaging with other planned investment.

Stations
The expenditure on stations in the year was £5m higher than forecast in the NMS. The prime driver of this increase in the year was the extensive programme currently underway at Birmingham New Street.

Depots
Additional minor repairs were undertaken.

PUG 1
Euston remodelling works were started earlier than forecast in the NMS.

Other renewals and enhancements
The additional £2m expenditure was in relation to the Soho depot for the construction of a new depot for Central Trains which had not been included in the NMS.

North West Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	11.0	13.8	2.8
Structures	2.3	10.4	8.1
Signalling	7.9	3.6	(4.3)
Electrification	1.5	1.3	(0.2)
Stations	21.1	20.0	(1.1)
Depots	0.2	5.4	5.2
Other renewals	6.7	4.0	(2.7)
Manchester South	1.9	4.6	2.7
Manchester Piccadilly Plts 9/10/11 remodelling	2.9	6.7	3.8
WCRM Passenger Upgrade 2	0.4	0.0	(0.4)
Replacement of footbridges	0.0	2.1	2.1
WCML bridge assessment	0.0	0.6	0.6
Various enhancements	0.0	1.7	1.7
TOTAL	**55.9**	**74.2**	**18.3**

Analysis of material variances

Track
Condition assessments resulted in a change in scheme priorities, with additional work carried out on a number of sites, including Crewe, Wilmslow, Shap and Tebay. Also, jobs were brought forward from future years in order to utilise available possessions and to package with other work items. Design works for the 1999/2000 and 2000/01 years were also brought forward in order to achieve price efficiencies from the contractor.

Structures
Embankment slips on the WCML at North Rode (South of Macclesfield) and Addlington resulted in unplanned emergency expenditure. Technical difficulties in uprating the drainage system at Sandbach resulted in higher than forecast costs. The acceleration of the WCRM structures repairs and renewals programme, and the implementation of the level crossings removals has caused the increase against the NMS plan.

Signalling
The prime driver of the shortfall in expenditure against plan was the delay in securing authority for the Manchester South renewal scheme, which remained in feasibility stage at year end but has now been authorised. The expenditure on this scheme has been rephased and will be completed within the original timescales. Renewals works were undertaken as planned on the Crewe - Weaver Junction - Winsford section.

Depots
A further £5m was incurred on Virgin depots. This money was predominantly incurred on the Longsight Depot, Manchester, and was not forecast in the 1998 NMS.

Other Renewals
The telecoms concentrator at Manchester Piccadilly was planned for renewal but was reprogrammed with the agreement of the maintenance contractor pending a review of the specification requirements of the replacement system. It is now planned for 1999/2000.

Manchester South
Extended discussions with industry partners to ensure the development of the optimum solution resulted in additional design and feasibility studies. Site works have now started.

Piccadilly 9/10/11 Remodelling
The enhancement work at Piccadilly was commissioned during the year, incurring a total expenditure of £6.7m. This exceeded the forecast expenditure as additional work was carried out to remove permissive working on platforms 13 and 14, as agreed with the HMRI. Tenders returned were higher than had been estimated.

Replacement of Footbridges
The programme was brought forward in order to utilise possession availability.

Scotland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	8.6	7.8	**(0.8)**
Structures	1.6	0.6	**(1.0)**
Signalling	1.4	2.2	**0.8**
Electrification	0.4	0.2	**(0.2)**
Stations	1.5	1.5	**0.0**
Other renewals	0.4	0.5	**0.1**
Remote monitoring	0.2	0.1	**(0.1)**
Route development	1.2	0.3	**(0.9)**
Glasgow Central major station	3.1	3.8	**0.7**
TOTAL	**18.4**	**17.0**	**(1.4)**

Analysis of material variances

Structures
The reduction in expenditure results from a more concentrated and efficient programme to renew Float viaduct which will now be undertaken during 1999/2000.

Signalling
The increase in expenditure arose from the rolling over of the 1997/98 expenditure in Motherwell into 1998/99.

Route Development
The reduced expenditure occurred due to the revision of the timescales for PUG1 work to upgrade level crossings and signal sighting / spacing for the delivery of the feasibility outputs and the subsequent need to revisit and revise the outputs prior to implementation. The timescale of delivery remains 2002 and the revision increases the efficiency on the project.

Glasgow Central major station
Work on Glasgow Central was undertaken as planned with more work completed and higher expenditure than forecast in 1998 NMS.

Major Stations

Glasgow Central
During the year site work continued on the Station Regeneration Programme including renewal of the glass train shed and concourse roof. In addition, a new passenger waiting room was constructed.

Birmingham New Street
During the year work continued on the Station Regeneration Programme which involves safety and fire precaution type work and improvements to the platform surface finishes, walls, ceilings, lighting and diesel extraction systems. In addition, detailed design was concluded for the refurbishment of the passenger transfer bridge leading to the Navigation Street entrance.

Manchester Piccadilly
During the year site work continued on the Station Regeneration Programme involving the renewed glass train shed roof and the start of the upgrading of platform surface finishes. Further work was undertaken on the longer term development of the station, building upon an earlier urban regeneration study, including the enhancements needed to meet the future operating capacity requirements of the station and its integration with light rail, taxi, bus, private car, cyclists and pedestrian modes of arrival/departure.

London Euston
During the year a feasibility study was initiated to consider the long term development of the station including the enhancements needed to meet the future operating capacity requirements of this important London terminus station and its integration with London Underground, taxi, bus, private car, cyclists and pedestrian modes of arrival and departure. In addition, a substantial refurbishment of the principal passenger catering facility was undertaken.

Other Progress

Willesden Junction
Work has started to improve interchange between rail services and other modes of transport.

Croxley Link
The 1998 evaluation study was completed, but no subsequent agreement on the development of the scheme has yet been reached with LUL.

Soho Depot (Birmingham)
The construction of a new electric train maintenance facility within the depot and was completed in January 1999.

Walsall - Wolverhampton
This service was introduced in the Summer 1998 timetable.

Carlisle
A new depot has been opened for DRS at Etterby near Carlisle.

Edinburgh Parkway
We continue, with partners to evaluate, a proposal for a major parkway station on the western outskirts of Edinburgh.

Liverpool Lime Street
We have begun work on a major SRP scheme at the station. We are also working with our partners to undertake a major renewal of the public address and information systems to be completed in 2000.

Carstairs to Edinburgh and Glasgow
An OSLO simulation study to assess the capacity of the overhead network is in progress, to assist in producing a robust electrification strategy.

Glasgow Central
The scheme for the renewal of the signalling equipment is now in an advanced stage of development and is scheduled for commissioning in 2002/03.

Proof House Junction
The remodelling scheme will now take place at the same time as the Euston remodelling scheme.

ROUTE 2 – East Coast Main Line: London to Edinburgh

London North Eastern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	38.4	31.1	(7.3)
Structures	14.3	8.2	(6.1)
Signalling	7.1	4.8	(2.3)
Electrification	1.8	2.5	0.7
Stations	5.2	11.9	6.7
Depots	5.2	5.9	0.7
Other renewals	5.5	3.3	(2.2)
ECML upgrade studies	0.2	0.3	0.1
Station enhancement	0.5	0.6	0.1
Huntingdon-Peterborough signalling	0.1	0.0	(0.1)
ECML North signalling	0.8	2.9	2.1
Thameslink 2000	0.1	0.4	0.3
Other enhancements	3.7	4.6	0.9
Ranskill S&C	0.0	3.8	3.8
TOTAL	**82.9**	**80.3**	**(2.6)**

Analysis of material variances

Track

The ECML renewals were affected by an industrial dispute with our contractor and the difficulty in re-scheduling work during the year in review. Points and crossings have been renewed at Birtley, Chathill, Retford, Peterborough, Carlton and Ranskill. At the latter two, we have taken the opportunity to lengthen the loops for larger freight trains, improving the capacity and capability of the line. We have also renewed the points at various locations to enhanced specification to improve reliability.

Structures

Our internal review of the structures programme showed work on other routes to be more urgent. This resulted in a significant reduction on ECML for 1998/99. However, we have authorised the major reconstruction of Newark Dyke bridge at a cost of £8m over the next 2 years. This renewal will replace the existing metal structure which has given cause for concern over a number of years.

We have completed repairs to King Edward Bridge at Newcastle and at Chester-le-Street Viaduct. Repairs to Welwyn Viaduct have commenced and a major bridge at Heck near Doncaster was totally reconstructed over Christmas 1998.

Signalling

The reduction in signalling expenditure was due to our decision to integrate some renewal works with the upgrade project. Examples include our interlocking renewal programme and the renewal of equipment between Huntington and Peterborough. We have instead undertaken a package of minor renewals to sustain the condition of the interlockings until their renewal.

Electrification

The increase reflects our decision to extend strengthening works to the overhead line at Stilton Fen. The supporting masts had been subject to excess movement at this location due to the unstable nature of the ground. This work has delivered improved performance for this section of the route. We also completed work at Digswell to reduce the risk of power outage when the system is under maximum load.

Stations
We have accelerated our Station Regeneration Programme which has brought forward expenditure from future years. In particular we have made good progress with Newcastle Station. Station regeneration work has continued throughout the year with most of the smaller stations in Yorkshire and the North East completed. The first phase of refurbishment at York Station was completed on time and work is now well advanced on reconstruction of the remaining platforms. Further work is under way on the roof and platforms at Darlington.

Depots
The small increase in expenditure reflects the success in advancing the depot regeneration works at Ferme Park and Craigentinny. At Craigentinny depot, near Edinburgh, we have installed one of the first all weather carriage washing plants in Britain as part of our regeneration project.

ECML North signalling
We have started to upgrade signalling control equipment between York and Berwick-upon-Tweed and have provided diverse routeing for telecommunications to improve reliability and reduce delays. This scheme to enhance safety and improve operational performance has progressed well. All the systems will be upgraded in time to avoid any Year 2000 issues.

Ranskill S&C
This enhancement and renewal scheme was completed during 1998/99 and the improved loop capacity made available. We had planned to complete this work prior to the period of the 1998 NMS, hence the absence of any proposed expenditure.

Scotland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.0	4.0	2.0
Structures	0.5	1.8	1.3
Signalling	0.4	0.1	(0.3)
Stations	0.8	0.7	(0.1)
Depots	0.0	0.1	0.1
Other renewals	0.3	0.4	0.1
Remote monitoring	0.2	0.1	(0.1)
Edinburgh Waverley Major Station	2.0	2.7	0.7
TOTAL	**6.2**	**9.9**	**3.7**

Analysis of material variances

Track
The increased expenditure results from additional work to improve route performance at Drem, Oxwellmains and Spittal.

Structures
The increase of £1.3m arose from the re-prioritisation of works subsequent to NMS publication. The additional items were spent on drainage, the provision of stereo oblique photography, fencing and minor works such as masonry repairs.

Depots
No expenditure was forecast with work being undertaken at Craigentinny on the effluent plant at the request of GNER.

Major Stations

Edinburgh Waverley
During the year the initial phase of Station Regeneration Programme work was completed with the creation of a largely traffic free concourse, revised taxi and service vehicle access arrangements, refurbishment of the booking hall roof and creation of new travel related retail facilities on the concourse. In addition, work continued on the longer term solution to meeting the future operating capacity requirements of the station which can only be achieved through total reconstruction. Further details can be found in Route Strategy 2 of the 1999 Network Management Statement.

London Kings Cross
The transportation interchange and capacity aspects of the initial feasibility study into the upgrade of this station were adversely affected by the delays to Thameslink 2000 and uncertainty over the Channel Tunnel Rail Link. Whilst both of these projects connect directly with the adjacent St.Pancras station they have significant impacts on the future operating capacity requirements of Kings Cross. Meanwhile, a number of short term projects to improve the facilities for passengers were started by Great North Eastern Railway, including a new travel centre / ticket office and waiting lounges. Further details can be found in Route Strategy 2 of the 1999 Network Management Statement.

Other progress

The point-heater programme has continued with points at all key locations now fitted to improve reliability in cold weather.

- We have strengthened the overhead-line structures across Stilton Fen south of Peterborough and provided a strengthened power supply at Welwyn Garden City to improve reliability.
- We have installed remote condition monitoring of some key plant and equipment to improve reliability and cut delays.
- New technology has been developed and installed to improve the performance of the overhead-line network and reduce delays. In addition, improved communication links for signalling systems have been installed at Hitchin and power supplies have been upgraded at Digswell.
- We have started work on a new refuelling facility at York for Northern Spirit.
- Windspeed devices have been installed to improve reliability of level-crossing barriers during storm conditions. Weather stations have been installed to help manage better train performance on the route - including, particularly, the overhead wires - in extreme weather.

ROUTE 3 – Great Western Main Line : London to Bristol and Swansea

Great Western Zone

	NMS forecast	Actual	Variance
Renewals and Enhancements			
Track	24.7	26.5	1.8
Structures	12.4	12.1	(0.3)
Signalling	7.5	7.0	(0.5)
Electrification	0.2	0.0	(0.2)
Stations	9.7	45.5	35.8
Other renewals	6.5	3.0	(3.5)
Swindon Station – redesign	0.1	0.0	(0.1)
Cardiff Central Station and Square	7.6	5.3	(2.3)
Various enhancements	3.1	4.0	0.9
TOTAL	**71.8**	**103.4**	**31.6**

Analysis of material variances

Stations
The variance was caused by inclusion in actuals of £38m on the Paddington station redevelopment scheme, which had not been included in the NMS forecast. This was offset slightly by underspend due to delay to SRP work whilst reaching final agreement on scope with TOCs at Bridgend and Port Talbot and Swindon station redesign.

Other renewals
A programme of major SPT concentrators was planned to start during 1998/99. However since publication of the NMS, new technology options have been identified for assessment. The renewals will now be undertaken once the assessment has been completed and the technology proven.

Cardiff Central Station and Square
The underspend was due to slippage on the scheme, following protracted negotiation with TOCs on overall scope. The scheme was originally due to be completed in June 1999 and is now due to be completed in August 1999.

Major Stations

London Paddington
During the year major reconstruction work was undertaken to the concourse area, barrier line and some of the adjacent buildings to accommodate, principally, the creation of a check-in facility for Heathrow airport. This station's role as a feeder to Heathrow has also led to the introduction of hotel coach services and alterations to the taxi management systems on the departures road. A new London - Penzance motorail service will come into operation from summer this year, following completion of works at Paddington.

Other Progress

Reliability and Operability
Equipment reliability and minor signalling enhancements between Paddington and Airport Junction, and in the Bristol area have started.

Station Refurbishment
Cardiff Central is undergoing major refurbishment, due for completion in 1999/2000.

Layout alterations

These are under way at Reading, and Phase 1 was completed in April 1999. Relaying track and structural repairs in the Severn Tunnel started in 1998/99.

ROUTE 4 – Reading and Bristol and Penzance and branches

Great Western Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	9.1	11.4	2.3
Structures	7.4	5.0	(2.4)
Signalling	1.5	1.7	0.2
Telecoms	0.9	0.2	(0.7)
Stations	13.2	11.4	(1.8)
Other renewals	2.2	0.4	(1.8)
Various enhancements	0.5	2.3	1.8
TOTAL	**33.9**	**32.4**	**(1.5)**

Analysis of material variances

Track
The higher expenditure was due to substantial rerailing works following faster than anticipated sidewear at Brent, Bodmin, Tregarne, Saveock and Gwinear Rd.

Structures
Reduced expenditure was due to rephasing and rescoping of works following the comprehensive review of the renewals programme after the NMS was published. All this rescheduled work is included in later years of the plan, though some will be rescoped.

Signalling
The higher expenditure was due to additional expenditure on safety and performance schemes to address key emerging risks and deliver performance improvements.

Telecoms
There was lower expenditure on Customer Information Schemes, following prioritisation by TOCs and integration with the station security programme.

Stations
In 1998/99, we have made excellent progress with the Station Regeneration Programme, undertaking works at many stations on the route. An improved station car park has been provided at Taunton, together with local authority funded car-park improvements at St Austell and Liskeard.
Some SRP works have been delayed due to finalising scope with TOCs and obtaining local authority planning approval, e.g. at St Austell which will now be completed in December 1999, Frome in August 1999, Starcross in January 2000, Exeter Central in November 1999 and Exeter St Thomas in September 1999.

Enhancements
The variance was due to Backlog 3 SRP work being classified as renewals in the 1998 NMS. The actual figures report Backlog 3 expenditure as enhancement

Other Progress

Performance improvement
We are continuing this year's substantially expanded programme of sea defence works at Dawlish and improvements at Stafford's Bridge to reduce flooding. We are also continuing with a major overhaul of the Royal Albert Bridge. We have replaced track circuits with the more reliable axle counter system at Starcross, Totnes and Aish.

ROUTE 5 – Midland Main Line: London to Sheffield

Midland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	15.6	10.6	(5.0)
Structures	4.2	2.4	(1.8)
Signalling	2.5	1.6	(0.9)
Electrification	0.1	0.2	0.1
Stations	2.4	3.4	1.0
Depots	0.0	0.1	0.1
Luton Parkway	3.6	5.5	1.9
Thameslink 2000	3.5	3.6	0.1
1999 Timetable works	0.0	4.1	4.1
Eastcroft depot	0.0	1.7	1.7
East Midlands Parkway	0.0	0.7	0.7
TOTAL	**31.9**	**33.9**	**2.0**

Analysis of material variances

Track
The underlying track expenditure on this route was broadly in line with plan. £4.7m of forecast expenditure related to 1999 timetabling works and Eastcroft depot which is reported separately in the table above.

Structures
A review of the structures programmes indicated that some planned work was not required in the year. Route output was sustained.

Signalling
In the 1998 NMS the enhancement works necessary for the doubling of service frequency on the Midland Main Line were incorrectly classified as signalling renewals. These works have been reported as a separate enhancement under 1999 timetable works in the table above.

Stations
After preparation of the figures for the 1998 NMS, the station regeneration programme was further reviewed to take account of our customer's aspirations and the works to as many stations as possible were brought forward into 1998/9. The overall programme for the zone is still on schedule for completion by March 2001 - with this route now currently ahead of the programme anticipated at the time of the NMS.

Luton Parkway
At the time of publication of the NMS it was anticipated that Luton Airport Parkway Station works would be complete prior to the May 1999 timetable. Due to major land and property issues relating to the car parking at the station, negotiations with parties with land interests took much longer than anticipated and costs rose above those budgeted. The expected completion of the station is now Winter 1999.

1999 timetable works
Works necessary to introduce a doubling of service frequency of Midland Mainline trains from May 1999 were completed on time in Spring 1999. These works were as a result of a customer request and enabled doubling of the frequency of services on the route - the main works being at Bedford Station and Wigston Junction. The scheme included construction of a new north bound platform at Bedford. This includes full disabled access to all platforms via new lifts and was completed in May this year.

Track capacity has been increased at Wigston by installing a double-level junction. This work was completed in April 1999.

Eastcroft depot
This expenditure relates to the construction of a new depot for Central Trains, completed on schedule in May 1999. As noted on the prior page, this was classified as track renewals in the NMS.

Etches Park depot
The enhancement to the depot was in response to a customer requirement and was completed on schedule.

London North Eastern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	0.8	0.4	(0.4)
Stations	0.3	0.7	0.4
Other renewals	0.0	0.2	0.2
TOTAL	**1.1**	**1.3**	**0.2**

Analysis of material variances

Stations
We increased our expenditure on our SRP programme to include work on Sheffield Station roof.

Track
Track expenditure was lower than forecast due to an allocation of track renewal work to this route in the NMS which related to Route 13. Actual expenditure was in line with plan.

Other Progress

New maintenance shed facilities for Central Trains at Nottingham
This facility has been completed and is now in operation.

ROUTE 6 – Channel Tunnel Routes

Southern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	7.8	14.0	6.2
Structures	1.3	1.9	0.6
Signalling	3.3	2.1	(1.2)
Electrification	1.9	1.7	(0.2)
Stations	6.2	11.5	5.3
Depots	1.9	2.2	0.3
Other renewals	2.1	2.4	0.3
Thameslink 2000	4.7	5.1	0.4
Other enhancements	1.9	2.3	0.4
TOTAL	**31.1**	**43.2**	**12.1**

Analysis of material variances

Track
The additional expenditure reflects the condition and track quality surveys which indicated increased renewal work was required on CTR1 and CTR2 routes in 1998/99.

Structures
Additional work was carried out in 1998/99 resulting from a review of the structures programme after the NMS was published.

Signalling
The renewal of signalling equipment in the Dover area was completed in 1998. Expenditure was less than forecast due to two factors. Firstly a £0.6m saving on Dover Area re-signalling in its last year of expenditure with some work brought forward into 1997/98. Secondly, further studies were required on improvements to signalling on the Channel Tunnel routes leading to some planned work being reprogrammed to 1999/2000.

Stations
SRP work was brought forward for a number of stations. There were SRP completions at Folkestone Central, Eynsford, Shoreham, Otford, Bat and Ball, Sevenoaks, Maidstone East, Bearstead, Hollingbourne, Harrietsham, Lenham and Charing. Good progress was made at Charing Cross with expenditure on major stations £1.7m higher than forecast in the 1998 NMS.

Other renewals
The net increase was a result of increased expenditure on Customer Information Systems (to reflect customer needs) and telecoms at Victoria and London Bridge.

Major Stations

London Charing Cross
During the year site work on the Station Regeneration Programme was completed including provision of a the new glass roof over the concourse area.

London Victoria
During the year remedial works were undertaken on the roof drainage and underground drainage systems as part of the Station Regeneration Programme.

ROUTE 7 – Derby to Bristol and Didcot via Birmingham

Midland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	8.0	4.9	(3.1)
Structures	2.0	0.9	(1.1)
Signalling	1.5	0.2	(1.3)
Electrification	0.1	0.0	(0.1)
Stations	3.1	3.4	0.3
Depots	1.3	1.5	0.2
TOTAL	**16.0**	**10.9**	**(5.1)**

Analysis of material variances

Track
The variance arose from reassessment and reprioritisation of the track renewals programme but without reducing route output.

Structures
A comprehensive review of the programme took place after the NMS was published which resulted in a significant reprioritisation of the programme but without reducing route output.. The review process helped refocus the programme towards essential maintenance items and towards areas that would have a significant impact on the performance of the zone's infrastructure and that of the services running over it.

Signalling
The Banbury to Fenny Compton resignalling scheme, £1.1m, originally programmed to begin in 1998/99, was deferred pending the conclusions of the Cross Country upgrade feasibility studies due in autumn 1999. A variety of options are still available for this section of track, and consultations are continuing with customers.

Stations
After the preparation of the figures for the 1998 NMS, the Station Regeneration Programme was further reviewed to take account of our customer's aspirations and the works to as many stations as possible were brought forward into 1998/99.

Great Western Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	10.5	14.2	3.7
Structures	3.5	1.8	(1.7)
Signalling	1.8	1.7	(0.1)
Plant and machinery	1.2	0.4	(0.8)
Telecoms	1.7	0.2	(1.5)
Stations	4.2	1.5	(2.7)
Various enhancements	0.2	0.2	0.0
TOTAL	**23.1**	**20.0**	**(3.1)**

Analysis of material variances

Track
Work undertaken was in line with plans. Provision in the 1998 NMS for relaying work at Gloucester was included in Route 28 and not Route 7. The variance arose from the incorrect forecast.

Structures
The reduced expenditure was due to rephasing and rescoping of works following the comprehensive review of the structures programme.

Telecoms
The difference was due to major SPT concentrators and associated cables. The proposed concentrator renewals were postponed when tender prices for Oxford and Gloucester concentrators proved excessive. As a result, new technology is being assessed, and the renewals will be undertaken once this has been completed and the appropriate technology has been proved.

Stations
The reduced expenditure was caused by delay to SRP work at Cheltenham pending agreement on scope with the TOC, and the work is now expected to be completed by November 1999.

Other Progress

Tyseley Depot New Wheel Lathe
The project comprises the removal of the existing, outdated, under floor wheel lathe with a new computer-controlled lathe, together with an extension to the shed to house it. The works were completed in May this year.

Line speed improvements
Barnwood Junction was renewed in 1998 in relation to the Gloucester track renewals and remodelling with options for Tuffley and Yard junctions under consideration with Virgin Trains as part of a package line speed improvements.

ROUTE 8 – North Trans-Pennine: Liverpool to Leeds, Hull and Scarborough

London North Eastern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	3.0	3.6	0.6
Structures	3.1	4.5	1.4
Signalling	3.6	2.2	(1.4)
Stations	3.8	6.1	2.3
Other renewals	1.0	1.1	0.1
Leeds new platform	0.8	1.0	0.2
Capacity and line speed improvements	0.3	0.1	(0.2)
Leeds area resignalling and remodelling	4.3	4.9	0.6
Neville Hill Carriage Washer	0.0	1.4	1.4
Other enhancements	0.1	1.8	1.7
TOTAL	**20.0**	**26.7**	**6.7**

Analysis of material variances

Track
We increased our track expenditure on the route to address track quality and rail break issues particularly on the Wolds Coast section, Hull - Beverly, to significantly improve the historically poor track condition.

Structures
Our review of structures renewal programme identified the need to increase our activity on this route. We are also undertaking exceptional works at Hessle Foreshore to secure both the railway formation and the local environment from tidal erosion.

Signalling
We successfully completed a programme of detailed renewals on the route. Work was deferred at Leeds and will now be included in the major enhancement scheme.

Stations
The increased expenditure reflects the success in accelerating the Station Regeneration Programme. Re-roofing and structural repairs at Manchester Oxford Road have been successfully completed.

Enhancements
The Leeds 1st scheme has been progressed to authority and site works have begun. We have completed the additional platform at Leeds and enabled some line speed improvements between Leeds and Hull. The Neville Hill carriage washer has been installed and is undergoing commissioning trials. Leeds 1st will be complete in 2002. In the past year, we have laid down new tracks and opened up a brand new platform. This has allowed for the development of extra train services into Leeds and has improved the punctuality of services in the Leeds area by streamlining the flow of trains. This work, together with our regular renewal programme, improvements in maintenance management and a host of smaller investments, has led to a reduction of around 25% in infrastructure-caused train delays over the last year in the Leeds and West Yorkshire area.

North West Zone

Renewals and enhancements	NMS forecast	Actual	Variance
Track	1.0	0.7	(0.3)
Structures	5.5	6.4	0.9
Signalling	1.2	4.3	3.1
Stations	2.3	2.2	(0.1)
Other renewals	2.3	0.0	(2.3)
Glazebrook - upgrade loop for passenger services	0.4	0.6	0.2
Various enhancements	0.0	0.5	0.5
TOTAL	**12.7**	**14.7**	**2.0**

Analysis of material variances

Structures
The major renewal of Bridge 194 at Irlam Manchester Ship Canal saw an increase in expenditure due to difficulties in obtaining access to the site, and further work requirements which only became apparent when on-site. As a result completion was not achieved in the year as planned but was completed April 1999. The line speed has been increased to 85mph which has delivered a journey time improvement between Manchester and Warrington Central. The work at the Ship Canal Viaduct at Irlam has also merited an Engineering Excellence award for combining innovative construction techniques and meeting commercial challenge.

Signalling
The resignalling and abolition of Greenfield signalbox was substantially completed in the year, and the planned resultant increase in capacity has been utilised in the Summer 1999 timetable. Increased expenditure was incurred as a result of additional works on other signal boxes in East Manchester. This enabled necessary rationalisation works to be delivered more cost effectively than if implemented on a stand alone basis at a later date.

Glazebrook
This scheme was commissioned during the year. Expenditure incurred during the year was higher than forecast due to a carry forward of work from 1997/98.

Other progress

Capacity
Signalling equipment and track layout works to improve capacity in the Manchester Piccadilly area were completed in August and December 1998, respectively. In 1998 we repurchased some former railway land to facilitate potential improvements at Guide Bridge.

Capability
A new connection to the rail network from the cement works at North Ferriby near Hull has been opened.

Depots
Work at Neville Hill Depot has included the installation of a new carriage washer, which is scheduled for completion later this year.

Performance

A range of initiatives from large investment projects to focused local initiatives have contributed to consistently improved performance this year. The Alliance agreement we established with Jarvis Rail has helped deliver these achievements and will be the basis for our 1999/2000 plans. Significant structural works have been carried out this year at Mirfield Bridge (West Yorkshire) and Hessle foreshore (an embankment adjacent to the Humber Estuary) in order to secure the fabric of the railway for the future and improve infrastructure reliability.

ROUTE 9 – Birmingham and Coventry to Peterborough

Midland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.1	0.3	(1.8)
Structures	1.4	0.8	(0.6)
Signalling	0.9	0.0	(0.9)
Stations	1.1	0.6	(0.5)
TOTAL	**5.5**	**1.7**	**(3.8)**

Analysis of material variances

Track
The variance arose from reassessment and reprioritisation of the track renewals programme but without reducing route output.

Structures
A comprehensive review of the programme took place after the publication of the NMS which resulted in a significant reprioritisation of the programme but without reducing route output. The review process helped refocus the programme towards essential maintenance items and towards areas that would have a significant impact on the performance of the zone's infrastructure and that of the services running over it.

Signalling
The signalling works included in the 1998 NMS related to a number of renewals to level crossings that were planned to start in 1998/99. However, due to the feasibility and development work that is continuing on the Nuneaton to Peterborough resignalling scheme which we plan as a pilot scheme for the possible introduction of new signalling technology. However, these works have been deferred and will become part of the overall signalling renewal scheme, which is planned to start on site in 2000/01.

ROUTE 10 – Crewe to Newport via Shrewsbury

Great Western Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	3.4	2.8	(0.6)
Structures	1.9	1.8	(0.1)
Signalling	0.0	0.7	0.7
Stations	0.9	1.3	0.4
Other renewals	0.5	0.6	0.1
Various enhancements	0.0	0.1	0.1
TOTAL	**6.7**	**7.3**	**0.6**

Analysis of material variances

Track
There was reprioritisation of work resulting in reduced expenditure on this route.

Signalling
The higher expenditure was due to additional expenditure on safety and performance schemes.

Stations
Higher expenditure was due to better than anticipated progress on SRP work.

Midland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.7	0.8	(1.9)
Structures	2.0	0.5	(1.5)
Signalling	0.6	1.7	1.1
Stations	7.2	0.6	(6.6)
TOTAL	**12.5**	**3.6**	**(8.9)**

Analysis of material variances

Track
The variance has arisen on the reprioritisation of track schemes following the outcome of the full review of the track programme. All jobs included in the programme have been revisited as to their timescales for delivery and, where appropriate, have been replaced by schemes to extend the life of the current asset. No reductions to route output or deterioration in performance is anticipated from this reprioritisation of schemes.

Structures
A comprehensive review of the programme took place after the publication of the NMS which resulted in a significant reprioritisation of the programme. The review process helped refocus the programme towards essential maintenance items and towards areas that would have a significant impact on the performance of the zone's infrastructure and that of the services running over it. No reduction in route output or performance of the infrastructure has resulted from the reprioritisation of work from this particular route.

Signalling
The Shrewsbury area resignalling project was deferred following a detailed review, as the condition of assets is better than originally assumed. The scheme is now planned for 1999/2000 to 2002/03.

Stations
In the 1998 NMS the planned stations expenditure on Route 11 (Wolverhampton to Chester, Aberystwyth and Pwllelli) was incorrectly classified as Route 10 expenditure. Only minor station regeneration works were incurred on this route in 1998/99.

ROUTE 11 – Wolverhampton to Chester, Aberystwyth and Pwllheli

Midland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.7	1.1	(1.6)
Structures	2.5	4.6	2.1
Signalling	0.6	0.0	(0.6)
Stations	0.0	4.6	4.6
Depots	0.0	0.1	0.1
TOTAL	**5.8**	**10.4**	**4.6**

Analysis of material variances

Track
The variance has arisen on the reprioritisation of track schemes following the outcome of a full review of the track programme. All jobs included in the programme have been revisited as to their timescales for delivery and, where appropriate, have been replaced by schemes to extend the life of the current asset. No reductions to route output or deterioration in performance is anticipated from this reprioritisation of schemes.

Structures
Increased expenditure on structures on this route included further works to complete the programme of repairs to the timber bridges (Barmouth Viaduct excepted), repairs to the "beehive" structures, the sea defences at Ffriog Cliffs and unplanned emergency works on Underbridges 44 and 56 to prevent asset condition problems creating a performance deterioration.

Signalling
The Shrewsbury area resignalling project has been retimed following a detailed assessment of the condition of assets. The condition is better than originally assumed, and the Scheme is now planned for 1999/2000 to 2002/03.

Stations
After the preparation of the figures for the 1998 NMS, the station regeneration programme was further reviewed to take account of our customer's aspirations and the works to as many stations as possible were brought forward into 1998/99. NMS forecast expenditure was incorrectly classified as route 10 expenditure.

ROUTE 12 – Manchester and Crewe to North Wales

North West Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.4	1.6	(0.8)
Structures	0.5	1.0	0.5
Signalling	0.2	0.5	0.3
Stations	2.3	4.7	2.4
Depots	4.2	1.0	(3.2)
Other renewals	0.6	1.3	0.7
Deansgate Junction enhancement	0.1	0.1	0.0
Various enhancements	0.0	2.1	2.1
TOTAL	**10.3**	**12.3**	**2.0**

Analysis of material variances

Track
Part of the renewal work on the North Wales Coast has been reprogrammed to 1999 /2000 due to operational problems.

Structures
Additional expenditure was incurred due to unplanned works on sea defences in North Wales.

Signalling
During the year, we continued our programme of renewals. We completed signalling power distribution works at Holywell and Shotton and replaced signalling supply points at various locations including the provision of condition monitoring equipment. The existing track circuits at Penmaemawr and Abergele were experiencing reliability problems due to sea water contamination. Consequently we brought forward the installation of axle counters to provide a more reliable operation.

Stations
The expenditure reflects bringing forward schemes under the SRP programme. Eight stations including Colwyn Bay, Bangor and Rhyl have been successfully regenerated, with significant works at Chester, Holyhead and Wrexham.

Access for the disabled
The routes have seen substantial improvements to unassisted passenger access to platforms. Old goods lifts have been replaced with passenger operated lifts at Colwyn Bay, Wrexham General, Bangor and Rhyl. In conjunction with Flint County Council, improved facilities have been successfully completed at Flint Station. Further minor works have enabled better access at several stations on the Altrincham-Chester Line, key locations being Altrincham, Knutsford, Plumley and Ashley.

Depots
Chester depot is now under construction on behalf of First North Western (FNW), in order to stable their new diesel fleet. The start of the scheme was delayed pending a review of the project with FNW. The scheme is still planned for completion by January 2000.

Other
The renewal of the concentrator at Chester was brought forward in order to improve performance.

Chat Moss Capacity Enhancements

Renewal of signalling equipment was completed between Manchester and Newton-le-Willows, thereby increasing capacity and creating the potential for future line speed improvements. A freight loop was also added to the network as part of the scheme.

ROUTE 13 – Manchester to Sheffield and North Lincolnshire

London North Eastern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	5.2	6.2	1.0
Structures	2.5	3.4	0.9
Signalling	6.2	3.4	(2.8)
Stations	3.3	5.1	1.8
Other renewals	0.9	1.1	0.2
Robin Hood new service	0.0	0.3	0.3
Other enhancements	0.1	1.8	1.7
TOTAL	**18.2**	**21.3**	**3.1**

Analysis of material variances

Track
We increased our expenditure on track to address track quality and TSR issues and to complete the renewal of Brocklesby Junction. Following this work we have significantly reduced the number of TSRs between Doncaster and Wrawby.

Structures
In addition to planned work we undertook significant embankment stabilisation work at Elsham to maintain the integrity and functionality of this route.

Signalling
We successfully completed the Worksop renewal and re-control scheme. However the scope of re-control was reduced from that originally planned due to difficulties with planning consents. The renewal works associated with the Robin Hood new service were not as extensive as originally estimated.

Stations and Depots
The acceleration of our Station Regeneration Programme brought expenditure forward into this year. Regeneration work has been carried out at the small train maintenance depot at Cleethorpes.

Enhancements
We have completed the work to extend the Robin Hood services connecting Worksop and Nottingham via Mansfield. Additional enhancements secured for the route include the freight connection at Whitwell and a number of enhancement elements in the station regeneration works at the development of Shireoaks station.

North West Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	0.5	**0.7**	**0.2**
Structures	0.2	**0.1**	**(0.1)**
Signalling	0.0	**0.1**	**0.1**
Stations	2.3	**0.3**	**(2.0)**
Other renewals	0.0	**0.1**	**0.1**
TOTAL	**3.0**	**1.3**	**(1.7)**

Analysis of material variances

Track
Additional work was undertaken at Totley tunnel in order to remove a TSR following a customer's request.

Stations
SRP works at a number of stations on this route have been retimed on this route. Improved access for disabled passengers has been implemented at Hope Station in partnership with Derbyshire County Council

Other Progress

Freight
We have completed work at New Holland to enable new freight services to be operated.

Performance
We have installed axle-counters to replace track circuit activated signalling in the two-mile Disley Tunnel to improve the reliability of the signalling system and therefore the performance of train services on this route. We have installed low friction equipment on point mechanisms to improve the performance of junctions, especially targeting those which suffer coal or sand contamination.

ROUTE 14 – Edinburgh to Glasgow, Glasgow and Edinburgh to Aberdeen and Inverness

Scotland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	3.5	5.8	2.3
Structures	2.8	4.6	1.8
Signalling	2.5	2.6	0.1
Stations	4.7	16.8	12.1
Depots	4.3	2.5	(1.8)
Other renewals	4.5	2.9	(1.6)
Edinburgh Waverley major station	2.9	2.7	(0.2)
Forth Bridge	12.0	8.8	(3.2)
Rationalisation of Scottish signalling	11.1	11.7	0.6
Remote monitoring	0.5	0.4	(0.1)
Route development	0.7	0.4	(0.3)
Dalgety Bay Station	0.0	0.2	0.2
Edinburgh Park Station	0.3	0.1	(0.2)
Other enhancements	0.2	0.0	(0.2)
TOTAL	**50.0**	**59.5**	**9.5**

Analysis of material variances

Track

The increase in renewals expenditure of £2.3m followed a reassessment of our original programme following reprioritisation of the track programme. This enabled an increase in output and works undertaken included ballast works at Burnhouse, Hillend, Plean; renewals at Kirkcaldy and St. Fort between Edinburgh and Aberdeen, as well as Magdalene Green and Mossend between Motherwell and Dundee.

Structures

Additional works included drainage and rock combing at Croy and earthworks in Winchburgh to maintain and improve performance. The five-year programme to refurbish the Forth Bridge continues, with about 25% completed. We have also taken the opportunity to provide Scotland with the largest millennium countdown clock in Europe. Killiecrankie Tunnel has been cleared for W8 traffic, opening up the Perth - Inverness route. Drainage measures have been installed at Dullator, Winchburgh and Haymarket South. The renewal of effluent plant at Haymarket carriage depot was completed in the year.

Plant and electrical

The points-heater programme has continued as set out in last year's NMS. The key area of Cadder has been completed. The installation of new or improved systems at 33 locations involving 177 point ends has been completed. Monitoring equipment has been installed, enabling the performance of vital installations at key locations to be assessed remotely by our maintenance contractor. Anemometers have been installed on the Tay Bridge giving warning of high winds.

Stations

The increase in expenditure of £12.1m arose from an £8.4m increase on the Queen Street station roof to ensure that completion is prior to the introduction of ScotRail 2000 new fifteen minute service and an additional increase of £3.7m following reprioritisation of SRP work in agreement with the customer. Dalgety Bay station is now open. The Station Regeneration Programme has continued with over 20 stations completed to date. Most notable is the

completion of the roof repairs at Aberdeen station and the ongoing work at Glasgow Queen Street. Lifts at Stirling and Linlithgow, funded by the local authorities, were installed to improve access for many groups of people. ScotRail has also taken the opportunity to carry out additional work at its own cost simultaneous to the Station Regeneration Programme, as have local authorities in upgrading adjacent facilities. This includes station lighting and the provision of CCTV equipment, providing improved safety and security at stations.

Depots
The reduced in expenditure at Haymarket of £1.8m was in agreement with the customer to enable ScotRail to determine their future requirements.

Route Development
The reduction was caused mainly by GNER's changed requirements for HST 2 + 9 operations, reducing planned expenditure on platform extensions.

Dalgety Bay
The expenditure incurred represented a rollover from 1997/98.

ROUTE 15 – West Anglia Main Line and branches

East Anglia Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	6.2	7.6	1.4
Structures	0.6	1.3	0.7
Signalling	5.6	4.7	(0.9)
Electrification	0.1	0.1	0.0
Stations	5.3	7.7	2.4
Depots	0.2	0.5	0.3
Other renewals	0.2	0.3	0.1
Thameslink 2000	0.0	0.1	0.1
Hitchin-Cambridge line speed improvements	0.3	0.1	(0.2)
Other enhancements	1.1	0.9	(0.2)
TOTAL	**19.6**	**23.3**	**3.7**

Analysis of material variances

Track
Additional work was carried out to deliver the maximum track quality and train performance improvements.

Structures
The increased expenditure resulted, primarily, from emergency works to Manea Embankment to prevent flooding.

Stations
We have completed Station Regeneration Programme work to 20 stations in 1998/99. To take advantage of possessions and isolations in place for SRP work , we have brought forward work planned for future years. We have provided disabled access to two more stations, Cheshunt and Bishops Stortford, where new lifts have been installed in partnership with WAGN, Hertfordshire and Essex County Councils.

Depots
To take advantage of possessions and isolations in place for Depot Regeneration Programme work we have brought forward work planned for future years.

Hitchin-Cambridge line speed increases
Originally this scheme was to be carried out in 2 stages in 1998/99. However it was decided to reprogramme the majority of the work until 1999/2000 to allow it all to be carried out in a single blockade and reduce the overall impact on existing services.

Other Progress

London - Stansted Upgrade
We have let contracts for the renewal of signalling and overhead line equipment in the Hackney Downs area and are developing the design for the rest of the scheme between London and Elsenham.

ROUTE 16 – Great Eastern Main Line and branches

East Anglia Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	11.6	13.1	1.5
Structures	3.8	3.4	(0.4)
Signalling	12.7	14.5	1.8
Electrification	8.7	5.2	(3.5)
Stations	12.3	13.1	0.8
Depots	2.8	4.8	2.0
Other renewals	0.6	0.6	0.0
Station improvements	1.0	0.9	(0.1)
Customer information systems	1.5	0.1	(1.4)
Gauge enhancement for freight - Felixstowe	1.0	0.0	(1.0)
Other enhancements	0.4	0.0	(0.4)
TOTAL	**56.4**	**55.7**	**(0.7)**

Analysis of material variances

Track
This variance was as a result of higher charges for moving materials to our work sites, resulting from reprioritisation of some of the programme to deliver the maximum track quality and train performance improvements. We have removed two permanent speed restrictions: Whitlingham Junction to Wroxham and Chippenham Junction to Kennet.

Structures
We saved £0.4m through good design on a major reconstruction.

Signalling
We relocated the Stratford signalling control to Liverpool Street, later than planned in the NMS to take advantage of more modern signalling technology (WESTCAD) which delivers greater operating flexibility. We have installed the Automatic Warning System on the GE Branches to Felixstowe, Norwich-Lowestoft and Great Yarmouth.

Electrification
We have re-balanced our plan to better focus our renewals on those areas most affecting train performance, rather than taking a purely cyclical approach.

Overhead-line improvements between Stratford and Shenfield
This has been completed and will deliver a 10mph improvement and a one-minute journey-time reduction by 2000.

Stations
We have provided disabled access at five more stations.

CIS (Customer Information Systems)
We have agreed with Great Eastern Railways and Anglia Railways locations for CIS modernisation work which has now started, later than planned, resulting in reduced expenditure in 1998/99.

Gauge enhancement to Felixstowe
We have cleared the route between Harwich and Forest Gate (Stratford) to accommodate W9 gauge, although minor work remains at Brentwood. We are also currently developing a cross country route from Felixstowe to

Nuneaton via Peterborough which will be clear to W10 gauge and will make a grant application to cover gauge and capacity improvements shortly. It is anticipated that work will be completed for 2004/5 which will further relieve the bottleneck at Stratford on the Great Eastern Main Line.

Other Progress

Signalling and Capacity improvements on The Felixstowe Line
This was completed in April this year. Extension of the loop at Derby Road, together with signalling improvements permits an hourly passenger and hourly freight service each way.

Upgrade alternative freight route between Gospel Oak and Barking (NLL) to relieve capacity bottleneck between Stratford and Forest Gate Junction
New signals between Woodgrange Park and South Tottenham (NLL) have been installed, allowing some freight trains to be diverted away from Stratford.

ROUTE 17 – London, Tilbury and Southend

East Anglia Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	4.5	2.0	(2.5)
Structures	0.5	1.8	1.3
Signalling	0.7	1.7	1.0
Electrification	1.0	1.3	0.3
Stations	3.7	6.7	3.0
Depots	2.4	4.1	1.7
Other renewals	2.1	0.1	(2.0)
West Ham Station	0.7	1.2	0.5
Station improvements	0.8	0.1	(0.7)
DOO and CCTV	0.3	0.0	(0.3)
Other enhancements	0.5	0.0	(0.5)
TOTAL	**17.2**	**19.0**	**1.8**

Analysis of material variances

Track
We have removed two permanent speed restrictions at West Ham Station and Gas Factory Junction. We have rescheduled two proposed track renewals as the condition was better than we thought when the plan was constructed.

Structures
We have had to carry out emergency maintenance, £0.7m at Chalkwell station footbridge, Varde Bullers bridge and culvert 137 at Tilbury. We have also spent more on reactive maintenance and preventing trespass and vandalism.

Signalling
We spent more than planned when completing the LTS resignalling project to install multi aspect signals at sidings on the Tilbury Loop and to upgrade software at Upminster IECC in advance of year 2000.

Electrification
Our £9m project was completed during the Summer of 1998. When we replaced overhead line equipment between Gas Factory Junction and East Ham, we also took the opportunity to install a back up power supply.

Stations
We have completed 16 stations in 1998/99. We have provided improved access at five more stations. To take advantage of possessions and isolations in place for Station Regeneration Programme work, we brought forward £2m of work planned for future years.

Depots
To take advantage of possessions and isolations in place for Station Regeneration Programme work, works at East Ham Depot were brought forward.

Other Renewals
Our telecoms equipment renewal programme has been reviewed to develop a strategy better targeted on performance improvement. This has resulted in spending below levels in the NMS for 1998/99.

West Ham Station
This was opened in 1998. We also upgraded the fencing and made a number of other modifications to the station to meet public and Local Authority concerns.

Station improvements
We have agreed with LTS Rail a final specification of works for Upminster which will start during 1999/2000. In addition, we have agreed to defer work at Southend Central and bring forward station improvements at Southend East to start in 1999/2000.

Customer-information system improvements
A new main indicator board has been installed at Fenchurch Street.

DOO and CCTV
We are working with LTS Rail to finalise specifications for DOO and CCTV. This work was originally intended for 1998/99.

ROUTE 18 – Chatham Main Line and North Kent

Southern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	9.4	7.6	(1.8)
Structures	4.1	6.6	2.5
Signalling	12.6	11.5	(1.1)
Electrification	1.3	2.0	0.7
Stations	3.4	2.2	(1.2)
Depots	0.2	0.0	(0.2)
Other renewals	4.3	2.4	(1.9)
Various enhancements	0.5	1.5	1.0
TOTAL	**35.8**	**33.8**	**(2.0)**

Analysis of material variances

Track
There was less renewal expenditure on this route following the outcome of the track programme review that indicated that condition was better than had previously been assessed.

Structures
The expenditure was re-prioritised between structures (and hence routes) reflecting the findings from feasibility and from further consideration of possession planning. As a result additional work was undertaken on this route. Strengthening and refurbishment works have been completed on Kingsferry Bridge.

Electrification
The increased expenditure reflects a higher than anticipated proportion of the Dartford resignalling scheme being composed of electrification following further scheme development.

Stations
Work was in line with plan. The 1998 NMS forecasts included £1m expenditure unrelated to stations. Station regeneration works have been completed at Crayford, Belvedere, Chatham, Dartford, Canterbury East, Dover Priory and Ramsgate. Customer information systems at all Connex franchised stations are being improved through a Railtrack and Connex partnership scheme.

Other renewals
The reduced expenditure results from lower expenditure on telecoms components of the Dartford resignalling scheme on telecoms than expected in the 1998 NMS following further scheme development.

Other Progress

Dartford area signalling renewal
Work is progressing with completion scheduled for 2001.

ROUTE 19 – Brighton Main Line and branches

Southern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	9.2	13.5	4.3
Structures	10.3	8.0	(2.3)
Signalling	3.0	1.6	(1.4)
Electrification	3.1	1.7	(1.4)
Stations	16.6	14.4	(2.2)
Depots	6.3	7.4	1.1
Other renewals	2.2	2.2	0.0
Thameslink 2000	10.1	2.8	(7.3)
Brighton Main Line capacity improvements	1.9	0.0	(1.9)
West Brompton new station	1.3	1.4	0.1
Other enhancements	2.0	10.3	8.3
TOTAL	**66.0**	**63.3**	**(2.7)**

Analysis of material variances

Track
Increased traffic on the route and the review of the renewal programme both indicated the need to increase spending above the NMS forecast level. There was significantly higher expenditure than forecast on switches and crossings reflecting the outcome of these studies.

Structures
Expenditure was re-prioritised between structures (and hence routes) reflecting the findings from feasibility and from further consideration of possession planning. The apparent risk of impacting on train performance led to two bridge schemes on the WLL being retimed to March 2000, dependent on final negotiations concerning possessions.

Signalling
Following review, a number of small feasibility schemes are now being undertaken in 1999/2000 rather than 1998/99 including improvements on the West London Line and Victoria ASC-TD renewal.

Electrification
The reduction in expenditure was because of the deferral of the closure of Selhurst Control. The retiming of this scheme is currently under review.

Stations
The three-year, multi million pound programme to refurbish Brighton Station, including extensive reroofing, is proceeding according to plan. Phase 1 SRP works at Haywards Heath have been completed. At Horsham, works are under way and will be completed in the summer to improve the station ambience and restore this building to its former glory. SRP work continues at Brighton, South Croydon, Purley Oaks and Purley. Construction of a new station at West Brompton is under way with completion scheduled for this year. A significant amount of SRP work has been undertaken on the Wimbledon Loop to improve the station environment.

Gatwick Airport
During the year Station Regeneration Programme work to improve the general environment of the station, provide improved waiting facilities and address safety and fire precautions was completed.

Depots
Specification for enabling works at Stewarts Lane was agreed with the customer, allowing new work to proceed. However new rolling stock requirements meant that it was not possible to proceed with the full proposed package of works which will require further consultation with the customer.

Thameslink 2000
The reduction in the expenditure has been due to the amendment to the timescale forecast in the 1998 NMS. The cessation of the original CTRL Project and subsequent delay in the provision of the Thameslink 2000 Station Box under St. Pancras has resulted in the lower than planned expenditure.

Brighton Main line capacity and speed improvements
The 1998 NMS was written on the assumption that a major scheme fundable from within the industry would be progressed in 1998/99. This project is subject to discussion with SSRA. Evaluation of the BML Route Strategy has been completed and summarised in 1999 NMS.

Other enhancements
Backlog 3 enhancement expenditure was allocated to renewal in the 1998 NMS forecast. Good progress at Brighton Station and other SRP work accounts for the overall increase in station expenditure.

Other Progress

Battersea Yard Bridge
Work is under way with completion scheduled for 2000.

ROUTE 20 – South Coastal route: Portsmouth to Ashford

Southern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	3.8	2.8	(1.0)
Structures	1.0	2.2	1.2
Signalling	0.2	0.7	0.5
Electrification	0.9	0.6	(0.3)
Stations	5.0	4.1	(0.9)
Depots	0.2	0.0	(0.2)
Other renewals	3.9	3.0	(0.9)
Various enhancements	0.4	1.6	1.2
TOTAL	**15.4**	**15.0**	**(0.4)**

Analysis of material variances

Track
There was less expenditure on this route as a result of reassessing the programme of work. This did not affect route performance and output.

Structures
The expenditure was re-prioritised between structures (and hence routes) reflecting the findings from feasibility studies and from further consideration of possession planning. The review process was instrumental in bringing forward work on this route.

Signalling
The increase was principally due to higher costs on the Modular Control System Pilot Project due to the higher than anticipated cost of obtaining technical approvals.

Stations
SRP work has recently been completed at Littlehampton and Bognor Regis stations and continues at Eastbourne.

Other renewals
The variance was a cost saving of about £0.7m on Brighton Havant telecom cable renewals.

Stations and Various enhancements
The 1998 NMS included Backlog 3 SRP enhancement expenditure as renewals. Actual expenditure includes this work as enhancement. Work at stations has been in line with plan.

ROUTE 21 – London to Portsmouth and Weymouth

Southern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	9.5	8.8	(0.7)
Structures	5.8	6.6	0.8
Signalling	16.0	21.6	5.6
Electrification	3.1	2.8	(0.3)
Stations	13.5	11.2	(2.3)
Depots	0.8	1.4	0.6
Other renewals	3.7	3.9	0.2
SWT new rolling stock (Class 458) route clearances	0.1	0.0	(0.1)
Other enhancements	3.7	3.2	(0.5)
TOTAL	**56.2**	**59.5**	**3.3**

Analysis of material variances

Signalling
The signalling renewal scheme in the Guildford area was substantially completed in December 1998. The variance was principally due to an increased expenditure on Woking to Surbiton re-signalling. The increase in the cost of Woking to Surbiton Resignalling was because the settlement of the final claim from the contractor was agreed at a higher sum than that assumed for the 1998 NMS.

Stations
The variance was primarily due to the forecast expenditure being more appropriately classified as signalling. A complete refurbishment of Surbiton Station is under way. At Clapham Junction, Phase 1 SRP work on the canopies and platforms has been completed. Work has just begun at Bournemouth station on the provision of a new station roof to replace the existing badly damaged structure.

Depots
Good progress with the SRP programme has been made at Bournemouth following extensive consultation and site surveys. This brought forward expenditure from future years. The scheme is scheduled for completion in July 1999.

Major Stations

London Waterloo
A number of improvements to the passenger retail and amenity facilities have been undertaken around the concourse area including a new station reception, seating and improvements to the customer information display systems. Further details can be found in Route 21 of the 1999 NMS.

ROUTE 22 – Wessex routes

Southern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	7.3	2.9	(4.4)
Structures	3.7	2.3	(1.4)
Signalling	0.3	0.3	0.0
Electrification	1.7	0.3	(1.4)
Stations	1.0	1.6	0.6
Depots	2.1	2.5	0.4
Other renewals	1.5	0.1	(1.4)
Various enhancements	0.8	1.7	0.9
TOTAL	**18.4**	**11.7**	**(6.7)**

Analysis of material variances

Track
Following a review of track condition the level of expenditure forecast and work was reduced accordingly. This did not affect route performance and output.

Structures
The expenditure was re-prioritised between structures (and hence routes) reflecting the findings from feasibility and from further consideration of possession planning. The review process was instrumental in this re-prioritisation.

Electrification
The expenditure was incorrectly forecast in the 1998 NMS to the order of £1.5m. The renewals were completed as planned.

Stations
Additional expenditure arose from bringing forward SRP work e.g. Salisbury.

Other renewals
There was lower expenditure on a number of smaller telecoms schemes reflecting the re-prioritisation of that expenditure across the zone.

Various enhancements
Actual expenditure includes Backlog 3 expenditure for SRP which was shown as renewal in the NMS forecast. Overall there was increased expenditure on station renewal and enhancement.

Great Western Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	0.4	0.3	(0.1)
Structures	0.7	0.5	(0.2)
Signalling	0.1	0.6	0.5
Stations	1.1	0.8	(0.3)
Other renewals	0.3	0.4	0.1
Various enhancements	0.0	0.1	0.1
TOTAL	**2.6**	**2.7**	**0.1**

Analysis of material variances

Track
The expenditure was lower than shown in 1998 NMS because work was delayed through contractual problems and will be completed in July / August 1999.

Structures
The reduced expenditure arose from the rephasing and rescoping of some works following the comprehensive review of the renewals programme.

Signalling
Higher expenditure was due to additional expenditure on safety and performance schemes.

Stations
The reduced expenditure was caused by delay to SRP work at Bradford-on-Avon pending planning consent, and completion is now due in September 1999.

ROUTE 23 – Clapham Junction to Reading and branches

Southern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	3.0	5.7	2.7
Structures	0.1	0.9	0.8
Signalling	0.9	1.4	0.5
Electrification	0.6	0.5	(0.1)
Stations	1.2	1.3	0.1
Other renewals	0.6	0.1	(0.5)
SWT new rolling stock (Class 458) route clearances	0.3	0.0	(0.3)
Feltham Gateway for Heathrow buses	2.5	2.9	0.4
Other enhancements	1.0	0.4	(0.6)
TOTAL	**10.2**	**13.2**	**3.0**

Analysis of material variances

Track and Structures
Following a review of the overall track and structures renewal programme additional work was identified and carried out on this route.

Signalling
There was increased expenditure on several small schemes.

Other renewals
A £0.5m saving was made by not progressing the Management Centre. There was also lower expenditure on a number of smaller telecoms schemes reflecting the re-prioritisation of that expenditure across that zone.

SWT new rolling stock
Following consultation with the customer the scheme has been reprogrammed.

Feltham Gateway
The upgrade of Feltham Gateway Station will be completed for full operation from the Summer timetable. Higher than planned costs were incurred as a result of legal and site access delays.

Other enhancements
The plan included the transfer of DOO equipment owned by SWT. This transfer did not take place at the customer's request.

ROUTE 24 – Isle of Wight: Ryde to Shanklin

Southern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	0.3	0.0	(0.3)
Signalling	0.9	0.7	(0.2)
Stations	0.1	0.1	0.0
Other renewals	0.2	0.5	0.3
Various enhancements	0.1	0.0	(0.1)
TOTAL	**1.6**	**1.3**	**(0.3)**

Analysis of material variances

Track
The £0.3m variance results from track expenditure being incorrectly included in the NMS forecast. Island line, the lease holder, is responsible for track renewals.

Stations
Work at Ryde Pier Head, Ryde St John's Road, Sandown and Shanklin stations was completed.

ROUTE 25 – Chiltern Lines

Midland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	1.4	1.4	0.0
Structures	0.8	2.7	1.9
Signalling	0.1	0.7	0.6
Stations	0.9	1.9	1.0
Line capacity works	3.7	17.3	13.6
Marylebone Concourse	0.0	0.8	0.8
TOTAL	**6.9**	**24.8**	**17.9**

Analysis of material variances

Structures
In response to a customer initiative and in order to reduce the number of bridge bashes by road traffic on the route, and improve performance, a further £0.4m of expenditure was incurred on a variety of schemes during 1998/99. In addition to this, a major unplanned reconstruction to underbridge 15 at Harrow and emergency works on embankments to prevent performance deterioration make up the additional expenditure over forecast.

Signalling
Increased expenditure arose in respect of the Automatic Train Protection system introduced on the route, due to both increased costs of works and an increased scope and coverage of the scheme.

Station
After the preparation of the figures for the 1998 NMS, the station regeneration programme was further reviewed to take account of our customer's aspirations and the works to as many stations as possible were brought forward into 1998/99. All stations are now complete except Banbury which will be completed during 1999.

Line Capacity Works
The works necessary to double the line between Princes Risborough and Bicester North were subject to some slippage of timescales from 1997/98 which had an impact on the 1998/99 expenditure identified in the 1998 NMS. In addition to this, further works on embankments were brought forward from future years in order to optimise the costs of the jobs while the contractor was on site, and to minimise the disruption to customers in future years. This scheme has enabled Chiltern Trains to significantly increase their services at the northern end of the route.

Marylebone Concourse
The expenditure incurred represents improvements to meet the customer's request.

Other Progress

Aynho Junction line speed improvements
These improvements have now been implemented on the up line.

ROUTE 26 – North London Lines

East Anglia Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	7.1	9.1	2.0
Structures	7.1	4.0	(3.1)
Electrification	0.2	0.4	0.2
Stations	0.5	1.0	0.5
Other renewals	0.3	0.1	(0.2)
DART	0.7	0.0	(0.7)
Other enhancements	0.3	0.3	0.0
TOTAL	**16.2**	**14.9**	**(1.3)**

Analysis of material variances

Track
The variance was as a result of higher charges for moving materials to our work sites resulting from a reprioritisation programme to deliver the maximum track quality and train performance improvements. We have removed two permanent speed restrictions and carried out track work between Neasden Junction and Acton Canal Wharf.

Structures
We have spent more on maintaining our larger bridges than planned, but have rephased work on bridges on the Gospel Oak - Barking line whilst we understand the results of detailed surveys carried out during 1998/99. As a result, work originally planned for bridges on this line during 1998/99 has been deferred. However, additional expenditure was needed at Kew Bridge to repair longitudinal timbers whilst we relaid the track over the bridge. The condition of these timbers had deteriorated since the last inspection and it was prudent to take advantage of the track work to replace them.

Stations
We have completed SRP work at 9 stations in 1998/99. We have provided disabled access at four more stations. To take advantage of possessions and isolations in place for Station Regeneration Programme work, future years projects were brought forward.

DART
DART (Digital Advance Radio for Trains) was to be trialled on the North London Line. However, we have decided not to pilot it on this route and will continue to use the existing NRN (National Radio Network) instead.

Other Progress

Capacity
New signals have been installed between Woodgrange Park and South Tottenham.

ROUTE 27 – Cotswolds

Great Western Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	1.3	0.3	(1.0)
Structures	2.0	2.4	0.4
Signalling	0.1	0.2	0.1
Stations	3.2	3.1	(0.1)
Other renewals	0.3	0.3	0.0
Various enhancements	0.0	0.3	0.3
TOTAL	**6.9**	**6.6**	**(0.3)**

Analysis of material variances

Track
The expenditure was lower than shown in 1998 NMS because work was delayed through contractual issues and one mile of relaying at Kingham being deferred to 1999/2000.

Structures
The higher expenditure against plan was due to additional embankments works and bridge works at Kingham.

Signalling
The higher expenditure was due to additional expenditure on safety and performance schemes.

Stations
We have completed works as part of the SRP at Great Malvern, Evesham, Moreton-in-Marsh, Hanborough, Kingham, Ascott-under-Wychwood, Pershore, Shipton, Bicester Town and Finstock.

Enhancements
The higher expenditure was due to classification of Backlog 3 SRP expenditure as enhancement.

ROUTE 28 – Cardiff Valleys

Great Western Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	6.5	2.8	(3.7)
Structures	1.4	1.4	0.0
Signalling	0.1	0.7	0.6
Stations	4.5	5.9	1.4
Other renewals	0.4	0.5	0.1
Taff Vale Phase 2	4.0	5.0	1.0
Rhymney Valley	0.2	0.0	(0.2)
Various enhancements	0.3	1.2	0.9
TOTAL	**17.4**	**17.5**	**0.1**

Analysis of material variances

Track
The 1998 NMS forecast included provision for relaying at Gloucester (Route 7) in error. Actual work on Route 28 was as planned.

Signalling
We have completed work on Radyr, Pontypridd and Porth track and signalling renewals (Taff Vale Phase 2) in October 1998. To improve reliability, we have equipped 22 point-ends with new electric heaters, and converted heaters on four point-ends from gas to electric operation. The higher expenditure was due to slippage from previous year on Barry Town and Cardiff Valley line speed improvements and includes additional expenditure on safety and performance schemes.

Stations
The higher expenditure was due to SRP work being brought forward with 46 out of 51 stations in the programme completed earlier than anticipated in the 1998 NMS and have improved disabled access at Porth.

Taff Vale Phase 2
The expenditure on signalling associated with the scheme was higher than forecast in the NMS following increased scope agreed with the customer.

Rhymney Valley
We have spent £26k on the completion of feasibility. The NMS also included some scheme expenditure in 1998/99 but this has been delayed awaiting availability of external funding for this largely socially funded scheme.

Enhancements
The higher expenditure was due to classification of Backlog 3 SRP expenditure as enhancement.

ROUTE 29 – West Wales

Great Western Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	0.9	0.6	(0.3)
Structures	2.3	0.9	(1.4)
Signalling	0.4	0.5	0.1
Stations	2.5	3.5	1.0
Other renewals	0.8	0.4	(0.4)
Various enhancements	0.0	0.6	0.6
TOTAL	**6.9**	**6.5**	**(0.4)**

Analysis of material variances

Track
The expenditure was lower than shown in 1998 NMS as work was delayed following a contractual dispute. This has now been reprogrammed for September-December 1999.

Structures
The reduced expenditure arose from rephasing and rescoping of works following the comprehensive review of the renewals programme. We have carried out major maintenance on Cockett and Sugar Loaf tunnels.

Signalling
We have converted 17 signals from oil to electric lighting, giving better reliability. Telephones at two level crossings have been renewed with improved equipment giving safety benefit.

Stations
The higher expenditure is due to SRP work being brought forward with 27 out of 31 stations in the programme now completed earlier than anticipated in the 1998 NMS.

Enhancements
The higher expenditure was due to classification of Backlog 3 SRP expenditure as enhancement.

ROUTE 30 – West Midlands local routes

Midlands Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	1.4	1.7	0.3
Structures	1.7	0.8	(0.9)
Signalling	0.8	1.1	0.3
Electrification	0.7	0.2	(0.5)
Stations	3.2	5.7	2.5
TOTAL	**7.8**	**9.5**	**1.7**

Analysis of material variances

Track
The increase in expenditure over that included in the NMS was on works on the Birmingham Cross City line - targeted specifically at areas where performance problems were regarded as a major issue and where significant long term reduction in delays to passengers could be obtained.

Structures
A comprehensive review of the programme took place after the NMS was published which resulted in a significant reprioritisation of the programme.

Signalling
Birmingham Cross City signalling balancing works were omitted from the NMS forecast. They were incorrectly classified under electrification. Consequently both signalling and electrification works were in line with plan. This was purely a reclassification of expenditure.

Electrification
The variance was due to the incorrect classification of Birmingham Cross City signalling balancing works in the NMS forecast. (See signalling above).

Stations
After the preparation of the figures for the 1998 NMS, the station regeneration programme was further reviewed to take account of our customer's aspirations and the works to as many stations as possible were brought forward into 1998/99.

Other Progress

Extension of Central Trains services from Rugeley to Stafford
This was implemented in June 1998.

ROUTE 31 – East Midlands local routes

Midland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.8	3.0	0.2
Structures	2.8	0.8	(2.0)
Signalling	3.5	3.4	(0.1)
Stations	5.4	5.9	0.5
Electrification	0.0	0.1	0.1
Robin Hood stage 2	0.0	(0.4)	(0.4)
TOTAL	**14.5**	**12.8**	**(1.7)**

Analysis of material variances

Structures
A comprehensive review of the programme took place after the publication of the NMS which resulted in a significant reprioritisation of the programme.

Stations
After the preparation of the figures for the 1998 NMS, the station regeneration programme was further reviewed to take account of our customer's aspirations and the works to as many stations as possible were brought forward into 1998/99. The overall programme for the zone is still on schedule for completion by March 2001 - with this route now currently ahead of the programme anticipated at the time of the NMS.

Robin Hood Stage 2
The scheme to extend the Robin Hood line (Mansfield-Worksop) has now been completed and the service was introduced on schedule in time for 1998. The above expenditure represents the recovery of costs incurred in prior year.

ROUTE 32 – Merseyside

North West Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	3.5	0.4	(3.1)
Structures	2.6	1.7	(0.9)
Signalling	0.7	0.6	(0.1)
Electrification	0.9	0.2	(0.7)
Stations	4.3	19.5	15.2
Depots	0.2	0.1	(0.1)
Other renewals	0.8	2.5	1.7
Merseyrail loop/link axle counters	0.4	0.4	0.0
Hooton: Electrification of Bay Platform	0.0	0.1	0.1
Various enhancements	0.0	1.0	1.0
TOTAL	**13.4**	**26.5**	**13.1**

Analysis of material variances

Track
A detailed examination of the proposed portfolio of schemes resulted in a considerable degree of re-scoping. Schemes affected include the re-railing of the Mersey Tunnel loop (now re-scheduled for later years) and the renewal of track at Green Lane. Switches and crossings renewals at Ormskirk have been curtailed where their condition could be sustained by maintenance.

Structures
Following the reprioritisation of the structure renewal programme the scheme at Burrowing Junction, Birkenhead, and redecking Bridge 34, St Helens - Wigan, were deferred until 1999/2000. Each was expected to cost c£0.5m.

Signalling
Olive Mount signalling equipment renewal was completed which has improved capacity between Edge Hill and Huyton. The programme for replacing track circuits with axle-counters on the Merseyside Loop/Link has been extended. There has been a significant performance benefit from the work undertaken in previous phases in the James Street area.

Electrification
The rolling programme to renew conductor rail on the Mersey network was re-examined in the year. Resulting in a re-profiling of some work to later years of the plan. We renewed 13 km of conductor rail in the year.

Stations
The large increase in the actual expenditure over plan was due to the bringing forward of Phase 1 of the Merseyrail underground stations mechanical and electrical works. This includes refurbishment of all 33 escalators at the underground stations. Additional works were also implemented to the roof of Liverpool Lime Street station. Phase 1 of Southport SRP was completed. Work to refurbish Bootle New Strand Station has been completed, supported by Merseytravel, Bootle Maritime City Challenge and EU funds.

Other renewals
Other renewal spend exceeded the original forecast due to a reprioritisation of the Liverpool Underground water removal scheme. The worsening water ingress problem was resolved by the installation of a pumping system, resulting in improved infrastructure reliability.

Other progress

New stations

During 1998/99 new stations were successfully opened at Conway Park and at Brunswick, funded by Merseytravel with EU assistance.

Air conditioning in lineside buildings

A programme of work to install air conditioning units into various relocatable equipment buildings throughout the electrified network is close to completion. This will improve performance of the signalling and telecoms equipment, preventing failure due to overheating during the summer months.

Tunnel drainage

A highly successful drainage scheme was completed during the year, which incorporated additional tunnel pumps and equipment to monitor the water levels. As a consequence of the successful targeting of these works, there has been a notable fall in the water levels, with a consequent improvement in train performance, and reliability, as well as increasing the life span of the present infrastructure.

ROUTE 33 – Manchester to the Coast

North West Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	12.5	14.6	2.1
Structures	3.0	8.0	5.0
Signalling	17.8	12.8	(5.0)
Stations	6.9	8.5	1.6
Depots	0.2	0.3	0.1
Other renewals	6.0	6.6	0.6
TOTAL	**46.4**	**50.8**	**4.4**

Analysis of material variances

Track
The majority of track expenditure in the year was in the Manchester Victoria Area Infrastructure Renewal (MVAIR) project. Further works have been undertaken in Salford to remove TSRs.

Structures
Structures expenditure on MVAIR was higher than planned. Emergency works have also been required in East Manchester, caused by extreme weather and embankment failure. Increased volumes of works have been required on the Dinting and Mottram viaducts.

Signalling
MVAIR expenditure on signalling was in the order of £4m lower than forecast for the year. AWS equipment has been successfully installed on the routes Wigan - Southport, Oldham Loop, Buxton to Disley.

Stations
The increased expenditure against plan was due to the bringing forward of SRP works on the Manchester to Glossop and Hadfield route. Phase 1 of Southport station SRP is complete. Works have also been completed at Blackpool North, Bolton and Rochdale, together with several smaller stations, including improvements made to stations on the Glossop Line.

Other progress

Horwich Parkway
This new park-and-ride facility adjacent to the M61 and linked to the adjacent retail park and sports stadium was opened in May this year.

Agecroft freight terminal
The scheme to make the new Agecroft Freight Terminal operational was completed in the year along with the route gauge clearance schemes.

ROUTE 34 – Lancashire

North West Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	3.2	4.5	1.3
Structures	0.6	1.1	0.5
Signalling	0.1	1.3	1.2
Stations	4.0	1.1	(2.9)
Other renewals	0.0	0.3	0.3
TOTAL	**7.9**	**8.3**	**0.4**

Analysis of material variances

Track
Significant track renewals have been carried out between Bolton and Blackburn and between Gannow Junction and Hall Royd Junctions to improve reliability and ride quality and line-speeds. Track expenditure was higher than forecast on these two refurbishment schemes which had originally been planned for completion in the previous year, being re-programmed due to material and possession availability.

Structures
Major works have taken place at Kitson Wood and Horsfall Tunnel to ensure that good performance on the route is maintained.

Signalling
The route refurbishment between Gannow Hall Royd included the removal of catchpoints and the refurbishment of P & C equipment. Additional expenditure resulted from work carried forward from 1997/98. There was also further feasibility and development work on a scheme to introduce automatic half barriers on the Wigan - Southport route.

Stations
The fall in expenditure has occurred due to rephasing of SRP works. Completion is still programmed for March 2001.

Other Renewals
An exercise to prioritise the renewal of signal supply points was carried out after the 1998 NMS was published. This prioritisation process identified three schemes which we carried out during 1998/99 at an approximate cost of £100k each.

ROUTE 35 – Cumbria

North West Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.0	1.0	(1.0)
Structures	1.2	0.3	(0.9)
Signalling	0.6	0.2	(0.4)
Stations	2.0	0.9	(1.1)
Depots	0.1	0.1	0.0
Other renewals	0.1	0.5	0.4
Freight: Corkickle freight siding	1.2	1.0	(0.2)
Various enhancements	0.0	0.2	0.2
TOTAL	**7.2**	**4.2**	**(3.0)**

Analysis of material variances

Track
The NMS plan included proposals to enhance the track layout at Parton as part of a signalling rationalisation scheme. This scheme did not go ahead as benefits were not demonstrated. There are no output or performance implications remitting from this decision.

Structures
The rolling program of renewal of the viaducts at Kent and Arnside have been reprofiled over a longer duration. This was as a result of the decision to implement the works over a series of night time possessions as opposed to a short series of weekend closures.

Signalling
A review of signalling renewals schemes has resulted in the Carnforth to Barrow scheme being reprogrammed and is now due to commence during 1999/2000.

Stations
The fall in expenditure has occurred due to re-phasing of other SRP work. Work at Grange-over-Sands has returned the station to its Victorian splendour. Work has also been undertaken at Barrow and Cark.

Corkickle
This scheme involved the clearance of the route from the WCML for 8'6" container traffic and the reinstatement of a connection to the freight customers yard. The customer subsequently requested the de-scoping of the scheme to clearance works only. This has now been delivered and is in use.

Other progress

Gauge enhancement for freight trains
The gauge on the section of route between Carlisle-Whitehaven has now been improved to W8 clearance. This has involved track lowering under bridges, work on platform edges and track-slewing.

Sea defences
Significant works on sea defences have been completed at Parton, incorporating rock armour protection for the toe of the sea wall.

ROUTE 36 – Yorkshire

London North Eastern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	3.1	3.3	0.2
Structures	7.6	7.7	0.1
Signalling	1.8	4.2	2.4
Electrification	0.3	0.8	0.5
Stations	7.1	5.2	(1.9)
Other renewals	0.6	1.1	0.5
Huddersfield-Halifax new service	1.0	0.4	(0.6)
Other enhancements	0.1	1.9	1.8
TOTAL	**21.6**	**24.6**	**3.0**

Analysis of material variances

Signalling
We completed a number of renewal and re-control schemes on the route. In undertaking the schemes additional scope was identified due to the condition of the existing signalling. This led to an increase in expenditure to ensure all the renewal need was addressed.

Electrification
A review of the Leeds North West system demonstrated a need to address a number of small safety issues resulting in an increase of our planned expenditure.

Stations
We successfully advanced Station regeneration work on many areas of the route and the zone. However there were difficulties in defining the required works on the Settle to Carnforth section which has reduced expenditure on the route in the year.
Station improvements were completed at Harrogate, Shipley, Bingley, Knaresborough and Skipton. Major work on the roof at Keighley Station was undertaken this year and further regeneration work has now started. Station enhancement works have been undertaken to accommodate the introduction of Class 333 trains on the Wharfedale and Airedale routes. We have also assisted GNER through infrastructure modifications to allow Class 91 trains to use the route from Skipton to Leeds to provide a direct Skipton-London service.

Enhancement
During the year, we have carried out extensive design and feasibility work for the new Halifax - Huddersfield Line and for the station at Brighouse and are now on site with preparatory works at Brighouse.
There was a reduction in planned expenditure on the Huddersfield - Halifax scheme due to WYPTE being unable to secure the required funding. This has now been achieved and the scheme is underway. The other enhancements are developments at stations which have been undertaken with the Station Regeneration Programme.

North West Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	0.0	1.1	1.1
Signalling	0.0	0.1	0.1
Stations	0.0	0.1	0.1
Structures	0.0	2.7	2.7
Other enhancements	0.0	0.4	0.4
TOTAL	**0.0**	**4.4**	**4.4**

Analysis of material variances

Track
£1m of track work undertaken relates to the replacement of an S&C unit, and the reinstatement of damaged track following the derailment of a passenger service on the Settle and Carlisle route.

Structures
All structures expenditure incurred was as a result of emergency works undertaken on the Settle and Carlisle line. These have included embankment slips at Waitby, Crosby Garrett and Appleby.

Other progress

Capacity
During 1998, the Settle and Carlisle Line was returned to 24-hour operation with the overnight opening of the signal boxes to allow the passage of increasing volumes of freight traffic.

ROUTE 37 – North East England

London North Eastern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.7	1.7	(1.0)
Structures	3.2	3.4	0.2
Signalling	2.7	2.1	(0.6)
Stations	3.7	3.7	0.0
Other renewals	0.4	0.5	0.1
Other enhancements	0.1	1.2	1.1
TOTAL	**12.8**	**12.6**	**(0.2)**

Analysis of material variances

Track
An industrial dispute affecting one of our contractors led to a shortfall of work completed. Work has been reprogrammed for 1999/2000.

Structures
A three-year programme of repairs and painting of the Newcastle High Level Bridge is now complete.

Enhancements
The additional enhancement schemes were opportunities created with the Station Regeneration Programme to enhance station facilities. In particular work has been undertaken at Middlesborough station.

Other progress

Performance
Our maintenance regime has been enhanced by developing a closer relationship with our suppliers and developing analytical measurement of asset performance identifying areas which need enhanced maintenance. Consequently, delays have fallen considerably throughout this route by some 20% in the past 12 months.

ROUTE 38 – South West Scotland

Scotland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	1.6	2.1	0.5
Structures	0.4	0.4	0.0
Signalling	0.3	0.3	0.0
Stations	2.8	1.3	(1.5)
Other renewals	0.2	0.2	0.0
Station security	0.1	0.0	(0.1)
TOTAL	**5.4**	**4.3**	**(1.1)**

Analysis of material variances

Track
In the year work on G&SW at Cample to improve track quality and at Carcluie between Ayr and Stranraer was undertaken. At these locations, the opportunity has been taken to install modern components to give increased reliability. This is of particular importance between Mauchline and Gretna where freight tonnage has significantly increased on track which has for many years only carried lightweight passenger rolling stock.

Stations
The reduction in expenditure of £1.5m allowed the re-prioritisation of works elsewhere with the agreement of ScotRail. Work has been carried out at 9 of the 12 stations on the route as part of the SRP. ScotRail has, in addition, taken the opportunity to carry out additional work at its own cost and at the same time, thereby minimising the extent of disruption to passengers.

Other progress

Plant and electrical
The points-heater programme has continued, enabling our performance to be maintained and improved when cold weather would otherwise put the service to customers at risk. This has resulted in 53 point-ends being entirely refurbished at 13 locations, including installing new power supplies, strip-heaters and sensing equipment. Provision has been made for remote monitoring equipment.

ROUTE 39 – Strathclyde

Scotland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	3.4	5.9	2.5
Structures	2.4	4.6	2.2
Signalling	3.3	4.5	1.2
Electrification	4.9	5.1	0.2
Stations	7.9	8.5	0.6
Depots	2.0	0.0	(2.0)
Other renewals	2.6	2.1	(0.5)
Rationalisation of Scottish signalling	7.4	7.8	0.4
Remote monitoring	0.5	0.4	(0.1)
Route development	0.1	0.1	0.0
Barrhead/Kilmarnock	0.8	0.0	(0.8)
Larkhall reopening and Northern Suburban	5.0	0.2	(4.8)
Shields/Gourock	0.3	0.0	(0.3)
Drumfrochar	0.0	0.3	0.3
SPT new stations	1.3	0.3	(1.0)
Paisley Gilmour street improvements	1.2	0.1	(1.1)
Station security	2.2	0.0	(2.2)
SPT station enhancements	0.5	0.0	(0.5)
Glasgow central major station	7.2	8.9	1.7
Other enhancements	0.2	0.1	(0.1)
TOTAL	**53.2**	**48.9**	**(4.3)**

Analysis of material variances

Track

The increase in renewals following a programme review has enabled additional renewals to be undertaken at Ardoch and Helensburgh on the North Electrics; at Barrassie, Bridge Street and Gailes on the Glasgow to Ayr route. Entire renewals at Croftfoot and Crosshill, on the Glasgow to Newton via Cathcart route, and reballasting at Fort Matilda on the Glasgow-Gourock route.

Structures

Two tunnels have had significant works carried out. The first - at Knightswood - saw the renewal of the original cast-iron roof beams supporting a public road and the Forth and Clyde Canals. At Abronhill Tunnel the roof of the tunnel was removed and a cutting created. Drainage works have been completed at Lochwinnock, Saltcoats and Craigendoran. The increase of £2.2m was mainly on the partial reconstruction of a retaining wall at Paisley whose structure was deteriorating more rapidly than anticipated.

Signalling

The increase in expenditure of £1.2m resulted from the re-prioritisation of additional expenditure on axle counters to improve performance, rollover of Motherwell wire degradation works and higher expenditure on remote control systems to improve reliability at Yoker.

Plant and electrification

The points-heater programme has continued as proposed in the 1998 NMS. The installation of new or improved equipment at 47 locations involving 280 point-ends has enabled performance in the Strathclyde area to be

maintained and improved during periods of cold weather. Remote monitoring equipment has been installed. OLE power supplies have been renewed at Port Glasgow, Parkhead and Dalreoch.

Stations
The increase in expenditure of £0.6m relates to the re-prioritisation of work in agreement with the customer. Drumfrochar Station was opened in May, sponsored and funded by the SPT and constructed by us. The Station Regeneration Programme has continued, with 98 stations completed to date. The largest worksite is the roof repairs at Glasgow Queen Street. In addition to the regeneration work, improvements to station lighting and the provision of CCTV equipment at a number of stations have improved safety and security for the public. The new wheel lathe at Shields depot has been completed.

Depots
The programme has been deferred to allow the customer to determine a depot strategy and the scope of customer driven works. The new wheel lathe at Shields depot has been completed.

Rationalisation of Scottish Signalling
The renewal of the signalling equipment based on Cowlairs signal box has continued, and has resulted in improvements to the flexibility of operation in and out of Queen Street Station, giving an improved service to the passengers. These works have seen the removal of Sighthill, the last mechanical signal box in the Glasgow area. The renewal of train describers at Glasgow and Motherwell has been completed, as has the replacement of the signalling interlocking at Motherwell. Equipment to protect the signalling at Yoker from power surges has been commissioned. Track circuits have been upgraded with axle-counters installed at certain critical locations to improve the reliability and performance of the system. The replacement of the signalling equipment has additionally been completed at Muirhouse and Whifflet.

Barrhead - Kilmarnock; SPT New Stations; Paisley Gilmour Street Lifts and SPT station enhancements
All these schemes are potentially funded or part funded by the SPT and the reduction in expenditure of £3.4m has been deferred to allow the customer further time to determine their requirements.

Larkhall and Northern Suburban
The reduced expenditure of £4.8m arose whilst a funding package was agreed with SPT, backed by the Scottish Office. The scheme is scheduled for completion in September 2001.

Shields / Gourock
Following review, the works are being re-evaluated.

Station Security
No expenditure has been incurred in the year whilst the SPT and ScotRail agreed their requirements.

Glasgow Central major station
Work on Glasgow Central was as planned. The variance arose from an under forecast in the 1998 NMS.

ROUTE 40 – Edinburgh and Fife

Scotland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.1	2.9	0.8
Structures	1.0	1.1	0.1
Signalling	0.3	0.4	0.1
Stations	2.1	2.0	(0.1)
Other renewals	0.3	0.3	0.0
Remote monitoring	0.1	0.1	0.0
Station security	0.3	0.3	0.0
Dunfermline East new station	0.0	0.1	0.1
Other enhancements	0.1	0.0	(0.1)
TOTAL	**6.3**	**7.2**	**0.9**

Analysis of material variances

Track
The increase in expenditure following review of the programme has enabled additional renewals at Cowdenbeath and Guilliehaugh and crop and welding to extend life at Brora.
Track renewals and structure renewals were accelerated to increase line speed to 75mph between Inverkeithing and Thornton.

Other progress

Signalling
Signalling improvements have been completed in the Fife area. Early development of signalling works to renew the signalling equipment at Edinburgh is ongoing. Train describers have been renewed and updated at Edinburgh.

Stations
A new station has been opened at Dalgety Bay and the development of another station at Dunfermline has been carried out on behalf of Fife Council. The Station Regeneration Programme has continued with five stations completed so far. ScotRail has, in addition, taken the opportunity to carry out additional work at its own cost at the same time, as have local authorities in upgrading adjacent facilities. In addition to the regeneration work, station lighting has been improved and CCTV equipment provided, including a new control centre at Dunfermline.

Other renewals and remote monitoring
Additional points heaters have been installed, completing the programme that was started two years ago. Remote monitoring equipment, enabling the performance of vital installations at key locations to be assessed by our maintenance contractor, has been installed. Systems to monitor signalling power supplies, generators, mains power supplies and points heaters have been provided to improve services to destinations on this route.
Equipment to deter birds from nesting on overhead wires at certain bridges has been installed on the ECML north of Prestonpans.

ROUTE 41 – Highlands

Scotland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	1.2	1.6	0.4
Structures	0.7	1.0	0.3
Signalling	0.2	0.4	0.2
Stations	1.6	3.0	1.4
Other renewals	0.2	0.1	(0.1)
TOTAL	**3.9**	**6.1**	**2.2**

Analysis of material variances

Track
The increase on budget has enabled additional renewal work to be undertaken at Craigendoran.

Structures
The additional expenditure gained included partial renewals at Corriemollie and Aultnafael to make the best use of a planned lengthy possession
Much regular and routine work has taken place over the year including waterproofing of bridges over Altnafael River and the Corriemollie Burn. In addition, linings to Leachabudhe Tunnel were renewed, together with the portals.

Signalling
The £0.2m increase in renewals has led to improvement works at Georgemas Junction enabling the train driver to operate the junction.

Stations
The increase in expenditure of £1.4m has enabled more stations to be completed earlier than originally planned with 49 out of a total of 73 now complete. Regeneration work has been carried out by Railtrack, but only after full consultation and agreement over the scope of work, with ScotRail and the relevant local authority. ScotRail has, in addition, taken the opportunity to carry out additional work at its own cost at the same time.

Other renewals
New and improved points heaters have been installed at junctions and loops, giving improved reliability and performance during periods of cold weather.

Other progress

Freight
A new siding has been constructed and brought into use at Kyle of Lochalsh. Other mothballed facilities have been brought back into use. Lineside loading facilities for timber traffic have been introduced.

ROUTE 42 – Freight only routes: Southern England and South Wales

Southern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Signalling	0.5	0.5	0.0
Various enhancements	0.4	0.0	(0.4)
TOTAL	**0.9**	**0.5**	**(0.4)**

Analysis of material variances

Various enhancements
The freight feasibility expenditure to address requests from EWS was allocated to freight only routes in the 1998 NMS. The expenditure has been included on other routes.

Great Western Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.2	1.3	(0.9)
Structures	1.9	0.7	(1.2)
Signalling	0.0	0.3	0.3
Other renewals	0.3	0.2	(0.1)
Various enhancements	0.0	(0.1)	(0.1)
TOTAL	**4.4**	**2.4**	**(2.0)**

Analysis of material variances

Track
The expenditure was lower than shown in the 1998 NMS as work was delayed following a contractual dispute, with 2 miles of relaying on the Vale of Glamorgan route deferred to 1999/2000.

Structures
The reduced expenditure was due to rephasing and rescoping of works following the review of the renewals programme.

Signalling
The higher expenditure was due to additional expenditure on safety and performance schemes to address key emerging risks and improve performance.

Other progress

Upgrading Western Valley Line in Newport - Ebbw Vale - Work has commenced.
Site works have started at Avonmouth Euroterminal at New Bristol.
We have reopened the Heathfield branch at Newton Abbot.

ROUTE 43 – Freight only routes: Midlands

Midland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	2.4	9.1	6.7
Structures	2.5	2.7	0.2
Signalling	1.1	2.6	1.5
Re-opening of Gedling branch	0.0	0.4	0.4
TOTAL	**6.0**	**14.8**	**8.8**

Analysis of material variances

Track
In order to reduce long term maintenance costs, increased track renewal works were performed between Knighton and Bardon Hill which accounted for 50% of the additional work over the NMS plan. Additional works were undertaken at Seaton and Wickenby in order to counter problems that occurred during the year.

Signalling
The variance on signalling costs was predominantly due to increased renewal expenditure over plan on the Kettering to Manton route. At the time of the preparation of the figures for the 1998 NMS the scheme was not fully developed, and revisions to the scope of the scheme were subsequently made.

Re-opening of Gedling branch
The expenditure relates to the reopening of the disused branch in response to a customer requirement.

Other progress

Reopening of freight facilities
The last year has seen the reopening of freight facilities on the East Leake and Rawdon branch lines.

ROUTE 44 – Freight only routes: Northern England

North West Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	1.4	0.9	(0.5)
Structures	0.3	0.2	(0.1)
Signalling	0.0	0.4	0.4
Other renewals	0.2	0.1	(0.1)
TOTAL	**1.9**	**1.6**	**(0.3)**

London North Eastern Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	1.0	0.9	(0.1)
Structures	0.6	0.3	(0.3)
Signalling	0.8	0.8	0.0
Other renewals	0.1	0.3	0.2
TOTAL	**2.5**	**2.3**	**(0.2)**

Analysis of material variances

Track
Some work was lost due to an industrial dispute affecting one of our contractors. The work has been reprogrammed for 1999/2000.

Structures
The reduced expenditure against plan arose from the more effective use of repair techniques.

Other progress

New facilities
We have worked with H J Banks to reopen a coal-handling siding at Renishaw Park, and with British Steel and Associated British Ports to improve capacity at the Immingham Bulk Terminal. In addition, EWS, Avesta Sheffield and Railtrack have collaborated on a scheme at Tinsley to allow the expansion of the works and improve the potential for future traffic growth.

ROUTE 45 – Freight only routes: Scotland

Scotland Zone

	NMS forecast	Actual	Variance
Renewals and enhancements			
Track	0.5	0.6	0.1
Structures	1.0	0.7	(0.3)
Other renewals	0.2	0.3	0.1
Shieldmuir Royal Mail Terminal	0.0	0.1	0.1
Remote monitoring	0.1	0.0	(0.1)
Route development	0.8	0.1	(0.7)
TOTAL	**2.6**	**1.8**	**(0.8)**

Analysis of material variances

Structures
The reduction of £0.3m has arisen following a re-assessment of the work programme. No reduction in route performance has resulted.

Route Development
The expenditure was £0.7m down on forecast due to the planned developments at Powharnel and Burntisland not progressing at the request of the customers.

Other progress

Gauge
The Deanside Branch is now available for W10 traffic.

New freight terminals
A new branch and coal-loading terminal has been constructed and brought into use at Holehouse, off the Waterside branch. The former British Rail owned site at Elderslie has been purchased by Railtrack Property with a view to establishing a rail-connected freight facility.