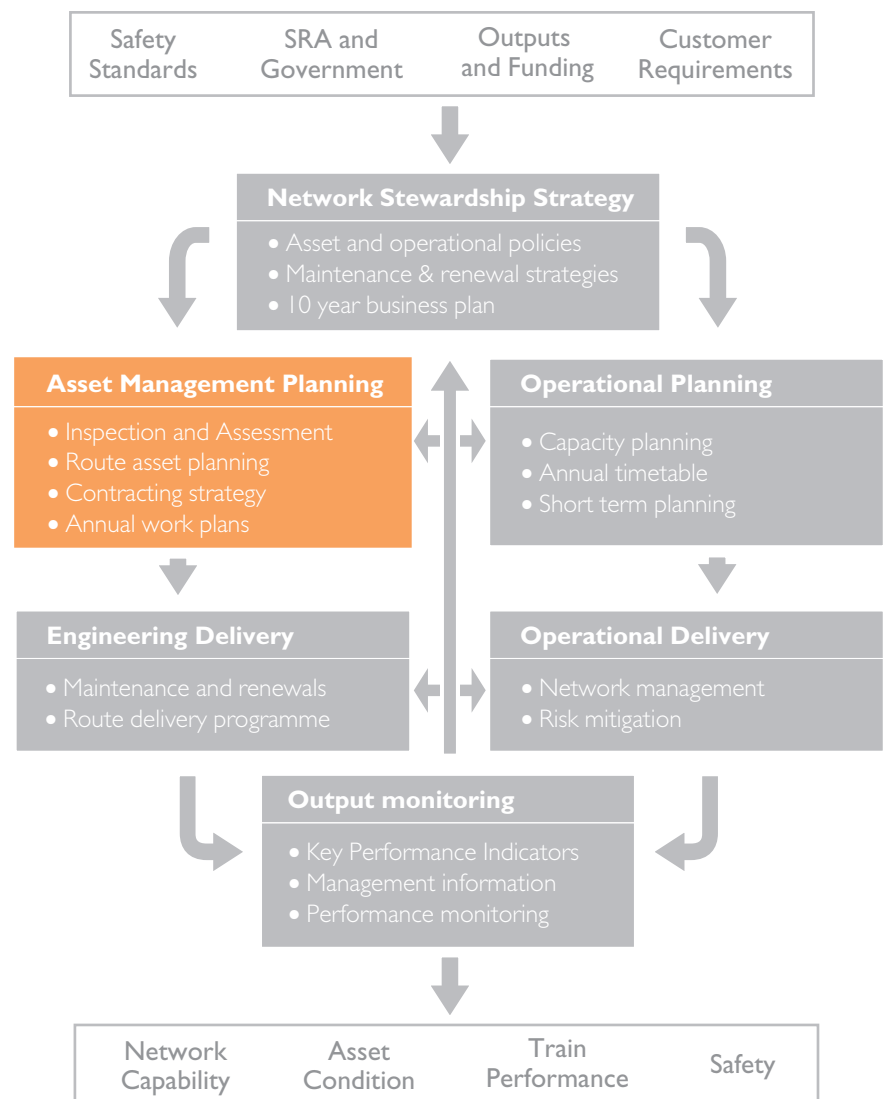


Section 4

Asset Management Planning

Having identified appropriate asset policies as part of the Network Stewardship Strategy process, it is necessary to develop robust plans to deliver these policies. Here we describe how these plans are produced and the potential constraints within which they need to be considered, primarily funding, engineering resource (internal and external) and engineering access to the network. The result is the Annual Work Plan incorporating workbanks for renewals and work volumes for maintenance over the next three years.



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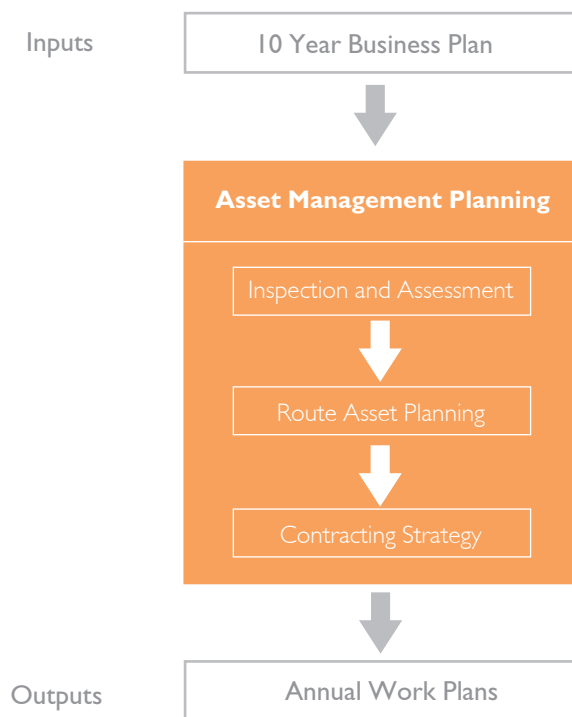
Objective

Asset Management Planning is the process used to develop detailed plans for maintenance and renewal activities that put into effect the policies identified by our Network Stewardship Strategy and deliver the related goals. Work identified is then prioritised to generate Annual Work Plans for the next three years supported by deliverable work programmes.

Approach

The 10 Year Business Plan identifies the asset policies which must be implemented to deliver the required infrastructure condition and capability. For each asset discipline maintenance strategies have been defined, the optimum maintenance/renewal interface determined and replacement asset types identified. Detailed plans are then identified to deliver agreed asset policies and objectives within the constraints framework of funding, resources and network access, see figure 4.1 below.

Figure 4.1 Asset Management Planning



In this chapter we analyse the shortcomings in the process, identify our long-term objectives for improvement and set out our priorities and plans for delivering significant change over the next two years.

Historically, our processes have suffered from fundamental shortcomings, including:

- insufficient knowledge of the condition, capability and capacity of our assets;
- over-reliance on manual inspection by our contractors;
- absence of consistent, risk-based processes and decision making tools across the business;
- poor integration of plans at route and customer level;
- supply chain capacity constraints and cost inflation;
- lack of visibility of maintenance activity and costs; and
- inadequate planning horizons and uncertain funding on maintenance and renewals.

The three key activities required to produce robust Annual Work Plans are:

Inspection and Assessment. We must identify the gap between the desired asset condition (as identified within the asset policies) and the actual condition (from the measurement and assessment of individual assets) in order to determine the actions required to bring the asset to the desired state. This should be achieved using information processes and decision support tools which are consistent, efficient and effective.

Route Asset Strategy. In order to prioritise the delivery of this work it is necessary to understand the criticality and outputs required of the route (both to our customers/funders and ourselves), proposed enhancements and availability of network access. Prioritisation will be through a consistent, risk-based assessment process.

Contracting Strategy and Supply Chain Management. Robust strategies must be in place to ensure that the necessary goods and service can be procured cost effectively. This is a particularly critical activity where supply-side resource constraints exist that could potentially impede the implementation of our plans.

The output of this series of activities will be optimised and detailed workbanks (for renewals and enhancement activities) and maintenance volumes for the next three years; the Annual Work Plans. Also identified will be costs, network access and other resources required to deliver this work effectively and efficiently. Where resource or access constraints preclude the proposed works from being carried out at the optimum time, appropriate mitigation proposals are identified.

The work plans will be used by regions to develop and update their Business Plans and form the basis of a Route Delivery Programme to be implemented as described in the section on Engineering Delivery.

Significant progress has already been made in addressing the shortcomings. Continuing actions over the next two years which will enable delivery of our long-term goals are:

- significantly improving the quality and availability of asset data and developing a prioritised action plan to improve related information systems;
- introduction of new inspection technology, including the New Measurement Train capable of operating up to 125 mph, and taking direct control of inspection of the network;
- extending the asset planning horizon to provide initial renewals work lists and maintenance volumes three years before delivery;
- development and implementation of a standard prioritisation and risk management methodology;
- adoption of a route-based approach to asset planning and prioritisation; and
- introduction of the New Maintenance Programme to redefine the processes, organisation and contracts for infrastructure maintenance.

Inspection and Assessment

Key to effective planning is asset knowledge: a comprehensive and complete understanding of the infrastructure that makes up the rail network, an understanding of its current condition and the likely future condition.

The suite of DSTs we are developing will assist us in identifying when an asset should be inspected, with this list supplemented from other sources such as local recommendations. The information will be used to plan a programme of site inspections, and for the collation of supporting information. The site inspections will be undertaken using appropriate technology by our own engineers supported, where required, by engineers from the relevant maintenance contractor.

The site inspection will generate a work recommendation and a priority that will be recorded in the workbank database.

Section 9 contains details of this process for each of the asset disciplines.

Asset Information

Improved knowledge of the condition, capability and capacity of our assets is a key business priority to support the effective stewardship of our assets. The publication of Railtrack's Asset Information Strategy in October 2001 (updated October 2002) was a key milestone in the development and delivery of a programme of work aimed at addressing this issue.

Our strategy is designed to provide a set of systems and processes capable of supporting our own and our partners' asset information needs and as a consequence facilitate the implementation and ongoing improvement of effective asset stewardship practices. This is managed within the framework set by our Information Plan and is, in turn, supported by it. An essential aspect of our plans is the migration from the current position, where detailed asset information is held on local systems, to one where consistent information is available throughout the organisation and beyond, to customers and stakeholders as appropriate. There are four principles that underpin this strategy:

- **Ownership:** we are establishing ownership and control of the data required for the management of the asset base.
- **Availability:** we are making available sufficient current and historic data on asset performance and operational characteristics to allow fact-based decision-making.
- **Integration:** we are integrating asset information across the organisation to establish a single coherent and consistent view of assets and their roles within the network.
- **Consistency:** we are adopting and enforcing a consistent approach to asset information processes. These are essential to support a "one company" approach.

A key initiative that is being developed to ensure that these principles are delivered is the Asset Data Architecture project. This provides a framework in which information is stored, managed, accessed and deployed. It forms the central plank of the Asset Information Strategy by enabling us to regain full control of our data, leverage operational improvements from this data, and manage it in a sustainable way. A central theme of this strategy is liberating data from the applications.

The focus of the initial work has been on defining our data requirements. Detailed data requirements (known as Universal Asset Types) have been defined by our engineering heads. This is currently more than 90% complete, and will be augmented by debate with other stakeholders over the next few months. Ongoing refinement will be determined by future business improvement initiatives. A data dictionary records these asset definitions together with data maintenance policies, data collection rules, quality requirements and associated data such as pictures. A parallel exercise has been carried out to define the data dictionaries for RAR, GEOGIS (Railtrack Asset Register, and Geography and Infrastructure - two of our corporate asset information databases) and MIMS, and each of these dictionaries has been mapped against the Universal Asset Types to identify the initial view of correspondences, duplications and gaps. All four dictionaries have been loaded into a purpose-built repository and placed under change control. This repository enables manipulation, maintenance, control and browsing of the data.

During 2003 a mapping exercise at attribute level will be carried out to identify duplicate information and gaps. This will give an initial indication for a system retirement strategy, and will impact data maintenance. The gap analysis will be converted into a prioritised action plan. Strategies may involve extending RAR, GEOGIS or MIMS databases, assimilating (and putting under tight control) tactical systems, or new build. The span of the data dictionary repository will be expanded to include other systems such as the replacement systems for FRAME (Failure Reporting and Monitoring of Equipment) and NETRAFF (a system used to record track tonnage statistics).

We will ensure widespread access to this data repository throughout the company, for the first time providing our staff with comprehensive access to asset information.

Inspection

We are continuing with the work commenced by Railtrack to take direct control of the inspection and examination of the network to provide the information on which the current condition of the network can be assessed, future condition predicted and the necessary work defined. The approach is centred around two principles: intelligent, targeted examination for decision support, rather than simply as an audit; and increased automation.

The DSTs provide an improved understanding of asset condition and degradation allowing a more focused approach to inspection and examination. Only data that is needed to support these decisions needs to be collected, with a risk-based approach determining collection frequencies.

Increased automation introduces considerable benefits. The reduced need for personnel on the track has direct safety benefits, and data accuracy and consistency is increased. Network disruption is reduced by the use of high speed train-borne inspection equipment. The use of video inspection provides a very powerful tool in our drive to increase our understanding of all aspects of our infrastructure. Improvements in data handling are enabling us to interpret the large volumes of data produced by automated inspection more effectively.

Current initiatives include:

- the New Measurement Train (NMT) incorporates multiple inspection and examination systems. The capability of operating up to 125mph means that it can be operated more easily within the working timetable;
- the NMT provides an interim solution (and a test bed for the technology) to the Unattended track Geometry Measurement System (UGMS). Inspection and measurement systems will be fitted to in-service trains – eliminating disruption and allowing the frequent inspection on critical routes. Two class 168 trains have been fitted with this equipment and trials are being held on the Chiltern route; and
- the UFM 160 system provides a mechanism for the unattended collection of video and other information. Details provided include rail surface, track geometry, signal visibility and vegetation clearance.

More than 85% of the network has been recorded using three-dimensional video survey techniques and the data has been distributed to users around the network. This has assisted asset data collection work for track as well as for other assets, giving safety benefits as well as cost savings through reduced exposure of personnel to the trackside. It has also been found to have a number of other uses, such as driver route familiarisation and access planning for work in possessions. Survey contracts have continued through 2003 to improve network coverage and record changes in assets and condition.

The video recordings are being used to assist decision-making and planning but are not currently suitable to replace on-site visual inspection. Video server trials have been completed and desk-top access to the video survey information will be rolled out across the company this year. Further development is being progressed to incorporate digital pattern recognition systems, which will be fitted to the new infrastructure inspection trains. This could enable the selected replacement of some on-site visual track inspections.

There are many single asset discipline initiatives that form part of this coordinated strategy for inspection and examination. Plans for these are contained in the relevant asset descriptions within Section 9.

Identification of Necessary Work

Understanding the desired condition (via the asset policies), the actual condition (via inspection and examination) and the most cost effective and appropriate means of achieving the desired condition (via the DSTs) allows for the identification of the work that will be necessary to maintain the asset in a fully functional condition. The work recommendation could range from continuing maintenance to complete renewal. Where a renewal is identified it is necessary to assess remaining life and to identify any mitigation measures that may be required.

The assessment of expected remaining life, although subjective, is used as a simple check within the prioritisation system. It will be used to trigger re-inspection and mitigations and also to support and compare with the output of the asset life guidelines.

The mitigation must be identified in case it proves impossible to undertake the work within the estimated remaining life. Possible mitigations include enhanced maintenance, partial renewal, temporary speed restrictions or, in extreme cases, taking the asset out of use.

Mitigations may also be necessary where the asset is found to require work more urgently than allowed for by the lead time for planning and implementing a renewal, or where there is a rapid and unexpected deterioration in asset condition. Alternatively where the asset is found to be non-compliant it may be appropriate to create a Temporary Non-compliance (TNCs). These may also require mitigating actions pending renewal. The TNCs will be controlled as part of the derogation management process.

Where enhancements are proposed on the route, the affected assets will be considered in the same way. However, the enhancement may result in the work being undertaken prematurely, or delayed pending the enhancement programme. In the latter case the mitigation programme would deal with the consequences of the deferral.

Current shortcomings in asset information and inspection have led to a short-term approach to work activity identification. The result has been changing activity plans and increased costs. Through improved knowledge and processes we intend to achieve our aim of identifying work with a three year time horizon.

Route Asset Planning

In order to reconcile successfully the objectives, activities and funding specified in the 10 year plan with the output of the Inspection and Assessment process, it is necessary to:

- understand the outputs required at route level in order to deliver our customers requirements;
- understand the constraints on delivery;
- understand the relationship between renewals and the SRA's priorities for enhancements; and
- prioritise work activity to meet the objectives cost-effectively.

Our goal is route based plans as the basis for this process. Each route asset plan will set out both the customer requirements detailed in the Local Output Commitments and how these requirements will be delivered within the constraints identified by the 10 Year Business Plan.

Our route asset plans will contain details of:

- the route characteristics and capability;
- route capability changes (due to enhancements);
- key issues on the route;
- known constraints;
- customer requirements (including Local Output Commitments);
- operational, train performance and asset stewardship issues;
- key planned projects (separately identifying renewals and enhancements); and
- planned changes in outputs.

Current details for each of our routes can be found in the Route Plan document.

Prioritisation

Determination of the priority of each of the recommended activities is necessary to be able to rank them in order of relative importance within the overall workbank. To assist this, those putting forward the recommendations are currently asked to assess activities according to four primary factors, as set out below:

- the extent to which the work will lead to an improvement in safety;
- the extent of the risk to train performance if the work was not done (measured in terms of compensation payments under Schedule 8 of the relevant track access agreements);
- the extent to which the work will contribute towards meeting the company's regulatory targets; and
- the extent to which an effective alternative activity is available to mitigate any risks to the ongoing operation of the asset.

In addition, account is also taken of a series of secondary factors such as the relative difficulty of securing access and resources for the work, any logistical difficulties in relation to the worksite itself, and any other key risks to the company if the work were to be delayed. This allows a view to be taken on the relative risks and benefits (including the financial impact) for the company if the work were or were not to be done.

However, while there is guidance to assist the region in following this approach to prioritisation, there is not yet a fully developed process for ensuring that this is done either consistently or at all. Practices therefore tend to vary, and it is not possible to state that currently we have a clear and consistent framework for the prioritisation of maintenance and renewal work. Instead, individual units – and also the Engineering heads in reviewing the overall maintenance and renewal plans – will apply their own informed judgement in determining priorities, drawing on the factors referred to above and also others set out in the business planning guidance and in individual asset policies.

Future Development

We are committed to moving to a templated structure with consistent application of the same processes across the whole of the company. Doing so will allow us in future to ensure that a consistent approach is taken to the prioritisation of our maintenance and renewal activities, and through that we ensure that this reflects the most efficient and effective use of our resources and takes into account the SRA's needs in relation to enhancements. Alongside this, we also intend to develop a revised prioritisation methodology that will include:

- safety and operational risk;
- condition;
- performance (by which we mean functionality); and
- current and expected usage (including maximum permitted speed and axle weight, annual gross tonnage).

The operational risk factor will take account of:

- safety: risk of a significant safety related failure;
- regulatory: to address the risk of failing to satisfy a regulatory commitment; and
- revenue: including the train performance risk. This will be guided by the Network Availability Model (see Section 8), which will identify the areas of greatest risk (and opportunity). In this way a site with a greater train performance risk will receive a greater priority than another site that has an equal engineering priority.

In each case, the priority will be expressed as a risk grading combining consequence and likelihood of occurrence. Pending the development of suitable gradings we will build upon our existing prioritisation methodology ensuring that this is consistently applied on a national level.

The resulting priorities will be sense checked against the estimate of remaining life.

Although priorities will be driven by the usage of the asset, it will also be a specific requirement for our engineers to annually reconfirm for each route:

- the “Route Availability” which is a measure of the maximum permissible weight for any individual vehicle. This may be dictated for an entire route by the capacity of a single bridge; and
- the ability of the route to sustain the future expected usage with the proposed levels of maintenance and renewal. This is intended to support the identification of routes where a change in traffic type or volume would lead to a sudden deterioration of the asset.

Workbank Reviews

There are two levels of reviews currently carried out. Engineering heads hold peer review meetings with regional engineering teams to assess the content of the workbanks and to ensure that a consistent approach to prioritisation is being taken across the network. The absence of a standard approach to risk management across the company has resulted in variations in the approach adopted by each engineering discipline. This peer review process has also suffered from inconsistent individual responsibilities and team structures between regions. The adoption of a standard risk management methodology and the new templated regional structure will improve this process significantly. Details of the current approach adopted for each asset discipline is detailed in Section 9.

As part of the business planning process, Board directors review regions' work plans on a regular basis. Whilst the review of proposals for individual asset renewals are generally limited to major structures and signalling schemes, key issues associated with the production of the workbanks are discussed for all asset disciplines.

Resource Constraints

To arrive at a deliverable work programme it is necessary to identify, quantify and assess the factors that may constrain our ability to deliver.

The constraints cover all forms of resource necessary to deliver the work, particularly:

- **Funding** – the available funding will be largely dictated by the 10 Year Business Plan and its associated financial risk analysis. For 2003/04 funding constraints will limit the volume of work undertaken, allowing for the current year's programme to be achieved together with some of the backlog programme of work.
- **Engineering Resources** – the availability of specialist and technical labour, plant, materials and services are crucial to developing a deliverable plan. It is therefore necessary to know not just unit costs but also to understand the associated outputs by activity type and duration.
- **Access** – the availability of appropriate access is a key element in delivering the work with an acceptable balance of cost and disruption. Both the quality of the outputs delivered outputs and the unit construction cost improve significantly when longer access is made available.

Contracting Strategy & Supply Chain Management

We currently spend approximately £4bn each year on the goods and services that we need to sustain and develop our infrastructure. Although we purchase a wide diversity of goods and services, about 50 companies account for 80% of the value of these goods and services. Predominant areas include track maintenance, track renewals, signalling, structures, utilities, track materials and logistics.

In many cases we are the dominant UK purchaser of railway-specific equipment and complex services. In the simpler sectors, we are a large user of commodity type goods. In several sectors there are only a limited number of suppliers and their specialist expertise creates high entry barriers. These factors mean that capacity shortages or changes in demand have dramatic effects on the market's ability to supply our needs. This makes the development of sustainable supply chain strategies all the more important.

These strategies must accommodate a range of needs according to market sector. In some cases an appropriate strategy is to rationalise the supplier base and move towards longer-term contracts with fewer, higher-quality suppliers. In others, it is to encourage expansion of market capacity through growing existing suppliers or encouraging new entrants.

Common Supply Chain Strategies

In all cases, strict safety and performance criteria mean that rigorous supplier pre-qualification processes exist. We are the principal user of shared rail industry qualification processes. Action is underway to strengthen these processes so that continuous improvement is driven across all suppliers and contractors. Continuous cost improvement is also a key objective, which cascades to supply chain activities through the need to measure and deliver year-on-year unit cost improvements.

Stringent supplier accreditation ensures we only give contracts to those contractors and suppliers who can demonstrate that they have specific competencies and suitable technical and management systems to successfully undertake the scope of work for which they are potentially bidding. These assurance processes are fundamental to our Railway Safety Case. We have direct contracts with approximately 200 contractors. Our supply chain extends far beyond these to the large number of sub-contractors they use. This is a crucial area that is subject to focused improvements.

As a result of these various drivers, strategies have been developed to meet the specific needs of the different market segments, and these are discussed in the relevant asset sub-sections in Section 9. Some common themes apply, including:

- the development of open and positive supplier relationships, with consistency across the company for our suppliers and contractors;
- establishing planning and forecasting processes for matching our demand with supply side capabilities;
- progressively introducing a range of long-term framework contracts covering commonly used groups and services. This will allow us to offer longer-term and more predictable commitment to a smaller number of preferred suppliers;
- updating our standard forms of contract to optimise the allocation and management of risk, thereby aligning objectives and providing clear incentives for continuous improvement;
- expanding the existing rail specialist materials logistics operation to ensure efficient on time delivery of bulk materials to rail work sites; and
- progressing e-business initiatives to encompass sourcing, bid management, contract management, e-procurement and transaction processing.

A group has been formed to provide advice, guidance and support. The group liaise with groups across the rail industry, other industries, academic institutions, and with professional bodies to provide the widest source of emerging supply chain best practice.

Significant activities over the next two years include:

- continuing development of the award-winning web-based policies and procedures, with new processes, help files, standard documents; and
- the development and publication of replacement and new terms and conditions of contract for the procurement of a wide range of goods, services and works.

Supply Chain Development

As a principal user of such systems, a particular area of ongoing improvement is supplier qualification and assurance processes. These allow industry-shared processes for supplier pre-qualification, follow up audit, and the more intensive testing of safety and management processes for contractors working on the operational railway. During the past year we have reviewed these processes and are extending the scope where they will be compulsory for work on our infrastructure, and strengthening the proof verification processes. Important benefits arising from this include a significant reduction in the requirement for supplementary audit activity for both subscribers and suppliers. We are also increasing the qualification requirements for various critical work activities, including possessions planning, track welding and grinding.

We are reviewing the extent to which we will negotiate framework contracts with a reduced number of approved contractors in these categories, and require only those contractors to work on our infrastructure.

Similar new breeds of systems will modernise and simplify contract administration and, reduce the documentation for ourselves and our suppliers, and provide greater consistency across the company. The use of e-tenders for the bid process and contract award, and reverse auctions are both currently in use as pilot schemes, e-procurement and logistics planning are also all under review for implementation over the next two years.

In support of our overall aim to target 20% efficiencies by March 2006 we will, over the next three months, quantify the benefits of these initiatives and develop an integrated work plan to achieve them.

New Maintenance Programme

The New Maintenance Programme (NMP) is the change management initiative that will redefine the processes, organisation and contracts for our infrastructure maintenance contracts. By moving the interface between ourselves and our contractors we are able to retake the ownership of asset information and the setting of work priorities, whilst still contracting out the actual delivery of the work.

The overall objective is, together with other initiatives, to provide revised arrangements that will give us: improved asset information; more control over the maintenance process and detailed activity; and accurate unit cost information.

The remit for the NMP initiative is to:

- design and fully document business processes and organisational structures capable of implementing the following strategic principles: taking responsibility for asset stewardship decisions; continuing to contract out maintenance; owning asset information; and owning work prioritisation decisions and the resulting work plans;
- support the implementation by others of the strategic principles covering our ability to demonstrate cost effectiveness of maintenance; and the owning of all engineering access to the network and the management of possessions;
- undertake all reasonable consultations with internal and external stakeholders and obtain board approval for the changes;
- develop and negotiate contractual arrangements to support the changes;
- plan, and through the assistance of regionally managed working groups, deliver the process and organisational changes necessary to implement the above;
- with affected contractors, plan and monitor the implementation of consequential changes to their organisations;
- plan and implement a change management initiative to assist regional staff in successfully changing their business culture to support NMP and other related initiatives; and
- obtain all necessary safety and other approvals for the changes.

How it will be achieved

The NMP initiative will be achieved through the activities of Head Office multi-functional design, implementation and change management teams, working with dedicated regional and area teams to manage the roll-out programme across the network and to ensure that changes and positive impacts are sustained.

Timetable

NMP implementation has started in East Anglia region to achieve a start date of no later than the end June 2003 for the first two contract areas, and national roll-out will follow to a programme approved by the Board.

Benefits

The principal benefits of NMP will be:

- improved information on asset condition, maintenance activity and cost;
- improved performance and system capability;
- more accurate contract and cost benchmarking;
- improved safety;
- planning, productivity and other efficiency gains leading to reductions in unit costs; and
- improved quality of works.

Overall the changes made by NMP will establish more consistent and effective processes, organisations and contractual framework to allow us to manage activities and costs much more closely than has previously been the case. In addition to the above specific benefits this will also result in improved safety and customer and stakeholder relationships.

The measurements of improvements at area level will be through the revised key performance indicators that the metrics programme is rolling out currently, and which represent a balanced score card for each area contract.

Organisation Changes

The organisational changes needed to implement the New Maintenance Programme are being designed as part of the changes to the regional structure currently being implemented. The new organisation will be implemented in two phases:

- the first phase will put in place the organisation structure required to create the general manager positions for each area, but will reflect the fact that the infrastructure maintenance contract arrangements will not have changed at this stage; and
- the second phase will reflect the additional organisational changes required to implement NMP, and operate the amended processes and contract arrangements for infrastructure maintenance.

The second phase will see an increase in the size of the area delivery organisation as tasks transfer to us from our contractors. The means of this transfer and the costs of the increased headcount will be the subject of negotiations with our current contractors. Over time we would expect the overall headcount (Network Rail and contractor) to reduce as processes are streamlined and duplicated activities removed.

Reading Initiative

We recently announced the transfer of the management of infrastructure maintenance within the Reading area into the direct line control of the General Manager, Thames Valley. The purpose of this is to better understand the costs associated with maintaining the network and to assist in redefining the levels of responsibility and risk between our maintenance contractors and ourselves.

It is not our intention to repeat this exercise across the whole of the network, however, it will be shortly extended to include another two contract areas. The understanding gained will significantly enhance our capability as a well-informed buyer of maintenance services and achieve a greater understanding of the operations, costs and associated issues of maintenance.

Subject to refinement of the plan, it is aimed to complete transfer by July 2003, with phase 2 being implemented over the following 12 months.

Both Amey Rail and ourselves are committed to ensuring that the transfer happens professionally and effectively with full cooperation from all parties, mindful of the interests of stakeholders within Reading contract and the wider industry. As the current contract arrangements with Amey Rail were due to expire at the end of March 2003, these have now been extended to ensure that day-to-day safe performance continues during the transfer period.

Annual Work Plans

Development of the Annual Work Plans balances the engineering demands of the asset with the needs of the customer and prioritises actions to produce detailed work programmes. It develops a plan that is achievable and delivers the required outputs within the prevailing constraints.

The Annual Work Plans will contain four programmes in various stages of implementation (Y, which is the current year – i.e. 2002/03) and development (Y+1 to Y+3). The overall planning process will, however, be continuous and not treated as discrete programmes.

The planning process for the next year in the cycle will typically commence in October of Y-2 on completion of the Inspection and Assessment Process (described previously) and conclude on 1 February Y-1 to feed into Rules of the Route discussions (see below). Therefore 2005/06 is the first programme year to which the new processes will have been fully applied. As a result, to provide meaningful input into the interim review it has been necessary to make some judgements based upon current processes and asset knowledge.

The emerging programmes for maintenance, inspection and renewal will be combined with the enhancement programme. The resulting indicative Restriction of Use requests will form the starting point for a Route Delivery Programme to be implemented, as described in the section on Engineering Delivery.

Outputs

The principal output of the Annual Work Plan process is the committed work lists for maintenance (including inspection and most mitigating actions), renewal and enhancements, and also the indicative requirements for Restrictions of Use.

A key objective is to fix the non-maintenance elements of the Route Delivery Programme two years from the point of delivery. The presumption then is that whilst refinement is permissible, and indeed essential, changes in renewal work scope and programme should be the exception. By minimising change the certainty of programme delivery to cost will be significantly enhanced.

Planned Maintenance Volumes

Planned maintenance volumes will be generated from an analysis of current activity volumes and costs in MIMS and related systems and local knowledge. The early estimation of this workload serves a number of purposes:

- to plan and progressively commit resources;
- to develop the route delivery programme;
- to demonstrate an appropriate level of effort consistent with good asset stewardship; and
- to provide visibility of the volumes of work.

The estimated maintenance volumes cover the full range of activities including heavy maintenance, mechanised maintenance, scheduled maintenance, inspection and rapid response. This does not imply fixing the entire maintenance programme two years ahead, which would be impractical and unrealistic. Rather it concerns forecasting the volumes as a starting point for resource planning. This forecast will be more reliable for the predictable elements such as scheduled maintenance and less so for the remainder. As work is fixed it will move from the “committed workbank” system into MIMS for delivery.

Renewals Work Programme

This is expressed as a committed workbank and our goal is to issue it to the appointed contractors two years out to allow detailed programming. Where the work plan analysis has identified the need for “outside Rules of the Route” possessions or “register items” the contractor will be expected to use these facilities. In other, less constrained, situations the contractor will develop the possession programme to deliver the works in the most efficient means possible as part of the Route Delivery Programme process.

Mitigation Programme

On completion of the process there will inevitably be items of proposed renewal work that cannot be accommodated in the programme due to one or more constraints. An appropriate mitigating action will be included in the committed workbank based upon the recommendations from the site inspection. The deferred renewal will be retained in the planning database for reconsideration for a later programme year.

Mitigations will usually be delivered through the maintenance programme. There is, however, the possibility that the most practical mitigation is a partial renewal in which case it will be delivered through the renewal programme. In either case there will be a cost implication to be managed.

Indicative Restriction of Use programme

This mainly takes the form of possessions but also includes all forms of Restriction of Use including, for example, diversions and temporary speed restrictions. The development of this programme will be the responsibility of the regional Integrated Planning Units working with the our Programme Management Office. Where such restrictions are identified at the annual planning stage they will become part of the indicative Route Delivery Programme and, together with the requests for Infrastructure Train resources, will be fed into the Operational Planning process.

Within the present operational planning timetable, settling the annual business plan by T-67 (T indicates the issue date for the timetable, the number is the number of weeks prior to it) prior to the commencement of the annual round of Rules of the Route discussions will be vital to minimising change and abortive cost. Historically Railtrack has entered the Rules of the Route discussions before budgets are known which often resulted in booked possessions not being utilised, or essential work being postponed by at least a year. The work has often been postponed until Y+2 because the budget decision comes after 1st February deadline for Y+1. Under the new Schedule 4 agreement this would result in paying for both sets of possessions, perhaps at a reduced discount if the work cannot wait until Y+1.