



The Performance Audit Group's Annual Report

2010/11

An independent public report on Scotland's trunk road maintenance

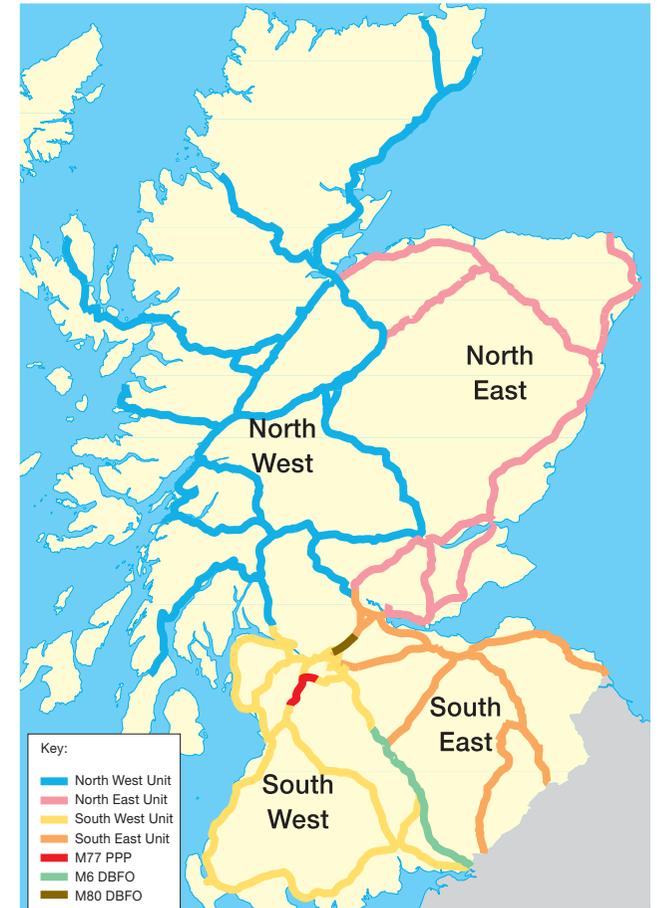


Figure 1 The Scottish trunk road network (2010/11) and how it is divided up for contract purposes (see figures 3-6 for details of the Units)



Foreword

Welcome to the Performance Audit Group's (PAGplus) annual report on Scotland's trunk road maintenance for 2010/11.

This is PAGplus' second annual report and it summarises the extensive work of our experienced multi-disciplinary team. Our role is to audit, monitor and report to Transport Scotland on the performance of the Operating Companies who maintain the Scottish trunk road network.

Our team works closely with all parties with the aim of raising standards and helping Transport Scotland:

"... to deliver an efficient, cost-effective and environmentally sustainable transport system in Scotland which will help deliver the Government's Purpose of increasing sustainable economic growth ..."

Transport Scotland's Corporate Plan 2008 - 2011.

Our approach to the commission is based on PAGplus, Transport Scotland and the Operating Companies working together to achieve shared success by delivering sustainable value together.

We consider sustainable value to be achieved when:

- quality of service
- asset enhancement and
- value for money

are all considered in the context of the wider sustainability agenda. This approach will ensure that well balanced, long-term solutions are delivered. Sustainable value allows the development of both existing and new approaches with the goal being to deliver long-term improvements, rather than just short-term cost savings.

The Operating Companies had to deal with one of the coldest winters in 50 years and there were some high profile road closures due to severe conditions.

Across the range of services provided by the Operating Companies there has been general continuous improvement.

Significant pressures on all public spending meant it was vital that efficiency savings were realised. Even with reduced budgets the third generation trunk road

maintenance contracts continued to deliver proven and ongoing efficiency savings.

The PAGplus team is proud of its contribution towards the continuous improvement of the management and maintenance of Scotland's trunk road network.

We trust you find our report clear, comprehensive and informative.



Bruce Lunn,
Commission Manager

PAGplus
Halcrow Group Ltd
September 2011



Scottish Border on A7 in SE



Executive summary

Overall, maintenance of the trunk road network was carried out to a good standard by the Operating Companies (OCs) with continuous improvement evident.

There was an ongoing commitment by Transport Scotland to invest in managing and maintaining the trunk road network despite significant public spending pressures. Budget allocation for 2010/11 of £131m, was a decrease of £15m (10%) on the previous year.

Inflation, which rose by 4%, resulted in less investment being available in 'real terms'. It is therefore vital that efficiency and value for money is achieved.

Efficiency savings delivered by the current OC contracts was £20m for 2010/11, with cumulative savings of £82m over the life of these contracts.

The OCs continued to show a highly responsible attitude to health and safety, with zero accidents remaining a common target. The quality, environmental and health and safety management systems were operated successfully by all OCs and demonstrated continual improvement. The winter season of 2010/11 was again one of the coldest and most severe

experienced in the last 50 years. It was the coldest December in over 100 years. Overall, all OCs performed well in delivering their winter service. There were fewer closures due to winter conditions than in 2009/10, but more than in previous years, reflecting the prolonged, exceptionally cold winter period.

Following closure of sections of the motorway network in central Scotland in early December 2010 and early January 2011 due to extreme weather and poor road conditions, Transport Scotland introduced additional measures, with the assistance of the OCs, to enhance future winter resilience.

The harsh winter again caused significant pressures on salt stocks across the UK. The OCs were proactive in the management of their salt stocks and provided mutual aid across the wider winter maintenance community. In addition, the OCs assisted Transport Scotland in the procurement and distribution of strategic stock piles.

Winter led to a significant increase in carriageway defects. All OCs performed well in repairing these defects, however,

there were difficulties in achieving the required timescales.

The OCs dealt well with emergencies during the year, responding quickly and professionally to minimise disruption to road users. All of the OCs had an increase in emergency incidents, largely due to the increase in carriageway defects.

Strong performance was demonstrated by all OCs in carrying out their safety inspections. In addition, all OCs delivered a good performance in carrying out their detailed inspections. South East (SE) showed considerable improvement from last year. Inspections of structures were successfully completed by all OCs.

No remedial notices were issued. North East (NE) and South West (SW) responded well to issues of non-conformance with the contract as they arose, with room for further improvement by SE and North West (NW).

All OCs performed well in developing sustainable initiatives and working practices. They have also taken steps to embed sustainability in their operations.

Frequently asked questions

What is the Performance Audit Group (PAGplus)?

Halcrow, working in association with PricewaterhouseCoopers, URS Scott Wilson and TRL, was re-appointed through competitive tendering by Transport Scotland for a third seven year term from December 2009. Halcrow and PricewaterhouseCoopers monitor performance on the four Units. URS Scott Wilson's role in PAGplus is primarily to monitor the M6 DBFO project. Further sub-consultants with a support role include: Tony Ham Insurance Brokers, Pulsion, Marshall Wilson and McGarvie Morrison Media.

What is PAGplus' role?

PAGplus audits, monitors and reports on the financial, technical and performance aspects of the OCs to a plan agreed with Transport Scotland. PAGplus also reviews payment requests from the OCs and carries out inter-Unit comparisons and value for money investigations at the request of Transport Scotland. In addition, PAGplus is assisting Transport Scotland in the development of the fourth generation trunk road maintenance contracts.

What is a trunk road?

The primary transport functions for the national strategic transport network are defined as:

- Linking major urban centres and areas of population change
- Providing links to international gateways, airports, ports and borders
- Linking remoter communities
- Linking key tourist areas
- Facilitating freight routes
- Linking areas of economic activity and regeneration areas of national significance.

All motorways and some A-roads are designated as trunk roads (see figure 1).

Are trunk roads managed and maintained in a different way to other roads?

Yes. Trunk roads are the responsibility of and funded by the Scottish Ministers. As such they are managed by Transport Scotland, maintained by the OCs and monitored by PAGplus. Local authorities are responsible for managing, maintaining and monitoring the local non-trunk road network.

What is Transport Scotland?

Transport Scotland is the Scottish Government's national transport agency responsible for helping to deliver the Government's £3 billion capital investment programme over the next decade, and include overseeing the safe and efficient running of Scotland's trunk roads.

What are Transport Scotland's responsibilities for trunk roads?

Transport Scotland is responsible to the Scottish Ministers for overseeing the management and maintenance of the trunk road network. To assist with this, it employs OCs, works contractors, concession companies and PAGplus.

What are OCs?

The OCs are responsible for delivering the management and maintenance of the trunk road network in each Unit, working under contract to Transport Scotland. During the reporting year 2010/11, the OCs for each Unit were: BEAR for NE and SE, Scotland TranServ for NW and Amey for SW.

Frequently asked questions

What are the OCs main tasks?

The OCs oversee, coordinate and undertake cyclic and routine maintenance, winter service and emergency response. In addition, they undertake structural road maintenance, bridge strengthening and maintenance, safety and condition inspections, road safety and minor improvement schemes.

What else do the OCs do?

The OCs also oversee and coordinate maintenance works carried out by contractors and coordinate works by utility companies (statutory undertakers).

The OCs:

- undertake day-to-day management of the Unit
- provide professional and design services
- carry out surveys, inspections and supervision
- manage their allocated budgets
- report to Transport Scotland.

What work is not done by the OCs?

Some maintenance and information management services carried out on the network are not the OCs' responsibility. These include:

- Maintenance of M74/A74(M) from junction 12 to the Scottish border; this is the responsibility of Autolink under the terms of the M6 DBFO project.
- Maintenance of M77 PPP project; this is the responsibility of Connect.
- Maintenance of M80 DBFO project; this contract started in mid March 2009 and is the responsibility of Highway Management (Scotland) Ltd.
- Maintenance of Traffic Scotland electrical equipment such as variable message signs, emergency telephones, permanent speed cameras and associated cabling.
- Collection of traffic data and maintenance of counting equipment.
- Major trunk road improvements built by contractors appointed by Transport Scotland. Maintenance responsibility for these improvements is split between the contractor and the OC for a set period, up to five years, prior to full responsibility passing to the OCs.

This report does not include an assessment of these other maintenance organisations.

Where can I find out more about the management and maintenance of the M6 DBFO, M77 PPP and M80 DBFO projects?

For M6, contact:

Autolink Concessionaires (M6) plc
M6 DBFO Project Office
Nethercleugh
Lockerbie
Dumfriesshire
DG11 2SQ.

For M77, contact:

Connect M77/GSO plc
Connect Roads Operations Centre
Maidenhill Interchange
Ayr Road
Glasgow
G77 6RT.

For M80, contact:

Public Liaison Office
Highways Management (Scotland) Ltd
11 Mollins Court
Westfield Industrial Estate
Cumbernauld
G68 9HP.



Kincardine Bridge on A876 in SE

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Chapter 1 Overview

1.1 Background

The Scottish trunk road network

The network is 3,171km long, excluding M6 DBFO, M77 PPP and M80 DBFO. It contains a total of 5,703 structures, including 1,911 bridges and footbridges.

It is divided into four geographic Units (see figure 1), NE, SE, NW and SW, each with its own contract. Each of the four Units is managed and maintained by an OC (see figures 3-6). Figure 2 outlines the structure of these arrangements.

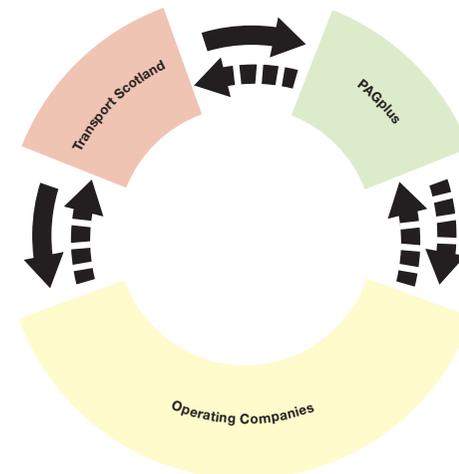


Figure 2 - Structure of arrangements between Transport Scotland, PAGplus and the OCs

The OC contracts

Scotland TranServ (a joint venture between Balfour Beatty and Mouchel) and Amey have managed and maintained NW and SW respectively since 1 April 2006. These contracts will be in place until 31 August 2012.

Since 1 April 2007, BEAR Scotland Ltd has been the OC for both NE and SE. These contracts will be in place until 31 March 2014.

The contracts' objectives

The contracts to manage and maintain the network were awarded by the Scottish Ministers, and focus on the following three objectives:

- Customer service – “to enable a ‘customer oriented’ approach to be further developed in the way roads are managed and maintained.”
- Value for money – “to achieve the maximum efficiency in the use of the substantial sums of money expended on the maintenance of the network.”
- Effective management – “to encourage innovation and skilful management to maximise trunk road capacity and achieve the best use of the network.”

The contracts also aim to encourage:

- Flexibility – “to accommodate changes to the trunk road network.”

Performance ratings

PAGplus has introduced a star rating system to assist in benchmarking OC performance. These performance ratings have been applied throughout the report.

The ratings used are

- ★★★★★ Excellent
- ★★★★☆ Good
- ★★★☆☆ Fair
- ★★☆☆☆ Poor
- ★☆☆☆☆ Unacceptable

A summary of these ratings can be found in the ‘Performance at a glance’ section on pages 59 and 60.



North East fact file



Figure 3 - NE Unit

Managed and maintained by:
BEAR Scotland Ltd.

BEAR's central office:
BEAR House
Inveralmond Road
Inveralmond Industrial Estate
Perth
PH1 3TW.

Total route length of the network
in NE: 646km.

Number of structures: 687.

Budget for maintaining trunk roads
in NE this period: £27.9m.



South East fact file



Figure 4 - SE Unit

Managed and maintained by:
BEAR Scotland Ltd.

BEAR's central office:
6A Dryden Road
Bilston Glen
Loanhead
EH20 9TY.

Total route length of the network
in SE: 511km.

Number of structures: 727.

Budget for maintaining trunk roads
in SE this period: £27.4m.



North West fact file



Figure 5 - NW Unit

Managed and maintained by:
Scotland TranServ

Scotland TranServ's central office:
Broxden House
Broxden Business Park
Lamberkine Drive
Perth
PH1 1RA.

Total route length of the network
in NW: 1,333km.

Number of structures: 2,377.

Budget for maintaining trunk roads
in NW this period: £41m.



South West fact file



Figure 6 - SW Unit

Managed and maintained by:
Amey

Amey's central office:
Langmuir Way
Bargeddie
Glasgow
G69 7RW.

Total route length of the network
in SW: 681km.

Number of structures: 1,912.

Budget for maintaining trunk roads
in SW this period: £34.9m.



Baillieston Interchange on M8 in SW

Chapter 2

Network management

Key points

Network reliability

- An excellent performance was delivered by all OCs in reducing disruption to road users by minimising the impact of roadworks.
- 99.51% of the network was available to road users throughout 2010/11, similar to previous years.
- Good use was made of the Scottish Road Works Register (SRWR) by the OCs. Considerable improvements were achieved during the year.
- The OCs demonstrated good performance in routeing and coordinating abnormal and high loads.

Network inspections

- All OCs showed strong performance in carrying out their safety inspections on time.

- All OCs delivered a good performance in carrying out detailed inspections. SE showed a considerable improvement from last year.
- Structures inspections and reports were successfully completed by all OCs.

Inventory management

- A good performance was delivered by SW in managing inventory within the routine maintenance management system (RMMS). There is room for improvement by the other OCs, especially NW.

Programme management

- The standard of statements of intent (SOI) was good in NE, SE and NW. Early in the period, changes in SW's programme resulted in late submissions of SOIs, but performance subsequently improved.

Development control duties

- All OCs delivered excellent performance in meeting their obligations for planning applications.

Sustainability

- Although not a specific requirement of the 3G contracts, all OCs performed well continuing to implement innovative methods to improve sustainability.

Network management



Network reliability

The delivery of Transport Scotland's investment by the OCs is pivotal to a safe, efficient, reliable and sustainable network.

The OCs are required to minimise the potential disruption and inconvenience to road users caused by essential maintenance by planning works, combining activities and coordinating with all stakeholders, including statutory undertakers.

2.1 Network reliability

2.1.1 Coordinating roadworks

In 2010/11, there were 14,607 roadworks sites across the network, an average of 40 per day, which is similar to last year. Figure 7 shows the number of roadworks sites in each Unit during the year.

Unit	Number of roadworks sites
NE	4,670
SE	3,375
NW	2,953
SW	3,609

Figure 7 - Number of roadworks sites in 2010/11 (source SRWR)

The OCs used a variety of measures to reduce delays and maintain network availability and safety during roadworks.

These included:

- Traffic management measures such as contraflows, use of temporary vehicle restraint systems, lateral safety zones and convoy working
- Advance notice of roadworks using the Scottish Road Works Register (SRWR), media campaigns and signing including variable message signs (VMS).

2.1.2 Availability of the network for road users

- all Units ★★★★★

The OCs' performance in minimising the impact of roadworks is measured as a key performance indicator (KPI). It is based on the length of lane closures and the amount of time that lanes are occupied by the OCs. This is used to calculate the overall percentage of the network available to road users.

There was excellent performance by the OCs in keeping the network open (see figure 8). Overall, availability was 99.51%, similar to previous years.

Unit	KPI value	% Available
NE	83,637	99.49
SE	83,908	99.34
NW	67,153	99.73
SW	105,709	99.35
Total	340,407	99.51

Figure 8 - KPI reporting road occupations and percentage of network available to road users

Network management



SRWR

The Scottish Road Works Commissioner was established under the Transport (Scotland) Act 2005 to oversee the planning and coordination of works on Scotland's roads by all roads authorities and statutory undertakers.

The SRWR is a database used by all roads authorities and statutory undertakers to register and coordinate all proposed work. It is also used to monitor reinstatement, supervision and road work history. Every public road in Scotland is included in the SRWR.

The OCs have responsibility for:

- checking all trunk road information is accurate
- giving permission to excavate in or affect any trunk road
- registering their own works in accordance with the approved Code of Practice.

2.1.3 Scottish road works register

The breakdown and type of works registered in the SRWR for each OC are shown in figure 9.

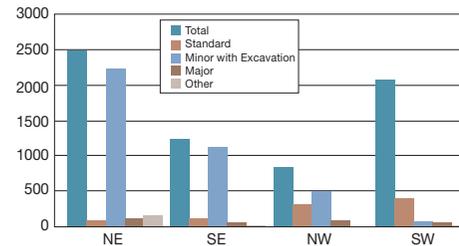


Figure 9 - Numbers and types of works registered in SRWR

There is a large variation in the number of works registered in the SRWR by the OCs. NE registered the most with 2,467 works and NW registered the least with 796. NE raised one notice per operation whereas NW elected to combine similar works on the same length of road into one notice. Both approaches are acceptable to the Scottish Road Works Commissioner.

Each quarter the Scottish Road Works Commissioner produces reports and KPIs for all roads authorities in Scotland. These

reports focus on how accurately works are registered in the SRWR. The OCs' performance is reviewed below.

NE, SE and SW - BEAR and Amey

★★★★☆

During 2010/11, NE, SE and SW showed good performance in accurately using the SRWR. This was an improvement from 2009/10.

NW - Scotland TransServ

★★★★☆

In 2010/11, the OC's performance was fair having dipped from last year. PAGplus' assessment was reflected in the Commissioner's reporting, which also identified particular issues in the early part of the period. Scotland TransServ's performance subsequently improved.

PAGplus will monitor Scotland TransServ's performance closely during 2011/12.

2.1.4 Abnormal loads

- all Units ★★★★★

All OCs continued to provide a good service.

One of the network tasks delegated to the OCs by Transport Scotland is the abnormal load routing and coordination service. The OCs liaise with hauliers and statutory bodies to provide this service within their Unit.

The OCs assess the suitability of structures on the network, to carry heavy loads as well as the suitability of routes to carry wide or long loads.

High loads - all Units ★★★★★

Unlike abnormal load movement, high loads are not specifically covered by legislation.

The OCs have all provided a good service at undertaking assessments, signing reviews and identifying mitigation measures at high risk sites.

Transport Scotland and the OCs provide coordination and route planning advice for high load movements on request.

Network management



Inspections

To deliver reliable journey times, ensure safety of the network and ensure budgets are allocated to areas of most need, the OCs are required to implement inspection regimes.

Weekly safety inspections/patrols are carried out on all routes to identify and repair the most serious defects quickly.

To maintain the safe condition of the trunk road asset, detailed inspections are carried out, typically annually, to identify minor defects. These defects are grouped into schemes, which are prioritised based on need.

2.2 Network inspections

2.2.1 Safety inspections and patrols

The RMMS allows accurate monitoring of each OC's inspection performance and is used to generate a KPI (see figure 10).

Across the network, 99% of safety inspections were achieved within the required time.

Unit	2010/11	2009/10	2008/09	2007/08
NE	99%	97%	100%	100%
SE	99%	97%	100%	99%
NW	100%	94%	99%	100%
SW	96%	82%	100%	100%

Figure 10 - KPI for safety inspections

NE and SE - BEAR ★★★★★

BEAR delivered excellent and improved performance. Both Units achieved 99% of their safety inspections within the required timescale. This was an improvement from the 97% achieved last year.

NW - Scotland TranServ ★★★★★

Scotland TranServ demonstrated excellent and improved performance delivering 100% of its safety inspections within the required timescales. In 2009/10, it delivered 94% of inspections on time.

SW - Amey ★★★★★☆

Overall, Amey delivered a good and improved level of performance. At the start of the period Amey raised a non-conformance to address a drop in its performance. Following further training on the RMMS, provided to its safety inspectors, a marked improvement was seen in Amey's performance for the remainder of the year.

Overall, Amey achieved 96% of safety inspections within the required timescale. In 2009/10, it delivered 82% of inspections on time.

2.2.2 Detailed inspections - roads

The delivery of detailed inspections by the OCs in 2010/11 has shown variable trends compared to 2009/10 (see figure 11).

Unit	2010/11	2009/10	2008/09	2007/08
NE	90%	99%	93%	93%
SE	91%	60%	100%	100%
NW	91%	100%	100%	90%
SW	90%	86%	92%	99%

Figure 11 - KPI for OC performance in completing detailed inspections

NE - BEAR ★★★★★☆

BEAR delivered 90% of its detailed inspections within the required timescale. This was a reduction in performance from the previous year when 99% was achieved. Overall, performance dipped but was still assessed as good.

SE - BEAR ★★★★★☆

Following an NNC being issued by PAGplus for poor performance in 2009/10, BEAR responded positively. Performance improved significantly in the latter part of the year to give an average of 91% of inspections on time. Overall, BEAR's performance was good.

Network management



NW - Scotland TranServ ★★★★★☆

Scotland TranServ carried out 91% of detailed inspections on time during 2010/11. This was a reduction in performance from the previous year when 100% was achieved. Issues surrounding timing of inspections raised last year were largely resolved.

Overall, performance dipped but was still assessed as good.

SW - Amey ★★★★★☆

Amey carried out 91% of detailed inspections on time compared to 86% achieved in 2009/10.

At the start of 2010/11, Amey's performance dipped to 85%. Following further RMMS training, in September 2010, Amey's performance increased to 95%. Overall, Amey's performance was good, having improved from 2009/10.

Maintaining structures

The OCs are required to inspect structures at regular pre-determined intervals and prepare programmes to manage and maintain them. The OCs must then design, procure and carry out works either directly or through tendered works contracts.

The term 'structures' includes bridges, culverts, retaining walls, sign gantries, high mast lighting and CCTV poles. Regular inspections are typically carried out at two and six yearly intervals.

The OCs are also required to carry out cyclic maintenance tasks to structures each year.

Management and maintenance of the Forth and Tay road bridges are not the responsibility of the OCs.

2.2.3 Inspecting structures - all Units ★★★★★

All the OCs have obligations to inspect structures within their Units.

Three types of inspections are routinely undertaken:

- General inspection (GI) - carried out every two years
- Principal inspection (PI) - carried out at six year intervals
- Superficial inspection - carried out on a needs basis (usually following severe weather or a major incident).

The inspections enable condition and defects to be recorded in the structures management system (SMS). Based upon the inspections, each OC develops proposals for necessary maintenance and determines how best to prioritise essential works within the available budget.

In 2010/11, the OCs carried out 890 PIs and 1,194 GIs. This was an increase from the previous year's figures of 860 PIs and 1,125 GIs.

A breakdown of inspections completed, and the overall performance of each OC, is shown in figure 12.

Unit	PIs	GIs	% completed
NE	100	141	100
SE	132	157	100
NW	237	357	100
SW	421	539	100
Total	890	1194	100

Figure 12 - OC performance in completing principal and general structural inspections

All OCs delivered excellent performance in completing GIs and PIs to agreed programmes.

Network management



2.3 Inventory management

2.3.1 Routine maintenance and management system

NE - BEAR ★★☆☆☆

Performance has dipped, with deficiencies identified in the OC's management of asset inventory in the RMMS. BEAR is addressing this, but further work is required. Overall, performance during the period is considered to be fair. PAGplus will monitor BEAR's performance closely during 2011/12.

SE - BEAR ★★☆☆☆

Overall, performance continued to be fair. Deficiencies remain in the OC's management of asset inventory in the RMMS. The OC is addressing these, however, further work is required. PAGplus will monitor performance closely during 2011/12.

NW - Scotland TranServ ★★☆☆☆

Performance has dipped to poor.

Deficiencies remain in the management of asset inventory in the RMMS, which Scotland TranServ did not proactively

address. PAGplus will work with the OC closely during 2011/12 to ensure performance improves.

SW - Amey ★★★★★

Overall, Amey has delivered a good and improved performance. During 2010/11 it addressed deficiencies in the management of asset inventory in the RMMS.

2.3.2 Structures management system

During 2010/11, the OCs were responsible for managing 5,703 structures on behalf of Transport Scotland. These are recorded in the SMS.

Structures range from culverts carrying watercourses under roads to major estuarial crossings, such as A898 Erskine Bridge and A9 Kessock Bridge.

Of these structures, 1,911 are bridges or footbridges. Small pipes and culverts are not classed as structures and are not subject to the full inspection regimes applied to structures.

A breakdown of the type and number of structures in each Unit, as extracted from the SMS, is shown in figure 13.

Unit	Bridges	Foot-bridges	Other structures
NE	312	16	359
SE	321	12	394
NW	590	62	1,725
SW	549	49	1,314
Total	1,772	139	3,792

Figure 13 - Number and type of structures in each Unit (source SMS)

2.3.3 Electrical assets -

all Units ★★☆☆☆

Performance in NE, SE and SW continued to be good. In NW, it was also good, an improvement on last year.

PAGplus audited all Units to verify that the OCs had met the requirements of the 3G contracts with respect to BS 7671 inspection and certification of electrical equipment and lighting.

Apart from minor observations, the condition and related certification of the electrical equipment reviewed was good.

New equipment provided by the OCs was generally found to be of a good standard both in design and installation.

Network management



Prioritisation

Allocation of budgets by Transport Scotland is based on network priority and need, reflecting its condition and traffic volumes. Many assets are ageing and require an increasing amount of ongoing maintenance to keep them in serviceable condition.

Transport Scotland introduced a new value management framework in January 2011 for all schemes in renewal programmes. This will assist in ensuring value for money.

Programming

The OCs submit programmes to Transport Scotland for discussion and approval. Once programmes are agreed, Transport Scotland issues authorising the OCs to implement the maintenance schemes.

2.4 Programme management

2.4.1 Submission of SOIs

To ensure value for money, the OCs must justify their submissions for all schemes by considering possible treatment options and cost estimates. Transport Scotland must review and approve the SOIs before OCs can undertake the work.

NE - BEAR ★★★★★☆

Performance continued to be good, with BEAR delivering suitable SOIs.

SE - BEAR ★★★★★☆

BEAR's performance remained good. It submitted SOIs of good quality on time and complied with Transport Scotland's bidding guidance document.

NW - Scotland TranServ ★★★★★☆

Scotland TranServ's performance continued to be good. Although the OC produced high quality SOI submissions these were not delivered within the submission deadlines.

SW - Amey ★★★★★☆

Amey's performance dipped to fair. During the first part of the year, Amey made considerable changes to its annual programme, resulting in late SOI submissions. The reasons for these changes were not fully explained to Transport Scotland at the time. Amey's performance improved later in the year, when it committed considerable resources to meet submission deadlines.

PAGplus will monitor Amey's performance closely during 2011/12.

2.4.2 Development control duties - all Units ★★★★★

The OCs assist Transport Scotland in processing all planning applications which may have an impact on the trunk road network. The OCs need to provide planning advice quickly to Transport Scotland to meet the five working days timescale for consultation responses.

A KPI is used to measure the OCs' performance in responding within the response timescale (see figure 14).

Unit	2010/11	2009/10
	% response within timescale	% response within timescale
NE	99.5	100
SE	100	98.4
NW	99.4	99.3
SW	99.4	93.7

Figure 14 - KPI for OC performance on response to planning applications

In total, 788 planning applications were received by the four OCs, compared with 689 in 2009/10. Only four were not processed within five working days.

All OCs delivered excellent performance during 2010/11.

Network management



2.5 Sustainability

The sustainable use and enjoyment of Scotland's natural and built environment is one of the key objectives of the Scottish Government.

The Scottish Government has set a target to reduce carbon emissions by 42% by 2020 and by at least 80% by 2050.

To contribute to the achievement of these ambitious goals Transport Scotland, PAGplus and the OCs are continuing to work together to provide a more sustainable service.

The 3G contracts do not currently include any sustainability requirements. Notwithstanding this all OCs have responded positively in supporting Transport Scotland to meet its objectives.

NE - BEAR ★★★★★☆

Performance remained good. BEAR used the 'crack and seat' method of carriageway reconstruction on A90 Aberuthven to Abbey Bridge and Findon to Portlethen works contracts. This reduced the use of virgin aggregate and carbon emissions over a traditional reconstruction scheme (see figure 15).



Figure 15 - Crack and seat operations on A90 in NE

BEAR held trials of low energy, low maintenance LED road lighting on A96 in Elgin. This was the first use of the equipment on the UK trunk road network with positive feedback from stakeholders.

Planings from existing carriageways were available for recycling purposes. Recycled drainage material was also incorporated into some works contracts.

SE - BEAR ★★★★★☆

Performance was again good. BEAR designed M8 J3 to River Almond Phase 2 works contract where 7,300 tonnes of excavated road materials were sent for recycling rather than to landfill.

On M8, BEAR trialled the use of a surfacing material which reduced carbon emissions by 45% compared to traditional materials.

NW - Scotland TranServ ★★★★★

The OC delivered an excellent and improved performance. Scotland TranServ was awarded the Scottish Council for Development and Industry SEPA/SNH award for excellence in environmental sustainability. This was in recognition of its hard work to improve sustainability across all aspects of the organisation.

On sites, Scotland TranServ's environmental measures included planting native species, introduction of habitat piles, installation of bird boxes, kerbing to prevent contamination of certified organic fields from road surface water, monitoring of seals and dolphins at Cromarty Bridge and temporary fencing for otter protection.

SW - Amey ★★★★★☆

Performance by Amey was again good. Amey successfully trialled solar powered traffic signals on a maintenance scheme. These were subsequently used on similar schemes requiring long term traffic management arrangements. The lights eliminate the need for diesel generators which make them particularly suitable for noise sensitive locations.

Amey continued its involvement along with PAGplus in the development of the civil engineering environmental quality assessment and awards scheme (CEEQUAL) manual for term contracts.

During the period, Amey signed up to the Scottish Government's Zero Waste Scotland Initiative, and as a direct result, carried out a successful in-situ recycling trial on a site where tar was present in the lower layers. The recycling ensured the tar remained in-situ which delivered carbon savings and reduced traffic disruption.

Solar powered road studs were installed at Pennyburn roundabout on A737. The use of these solar powered studs is aimed at reducing the level of night time accidents at this rural location. Other sustainable measures undertaken by Amey included a successful trial of a high-pressure white line removal system.

Chapter 3

Network maintenance

Key points

Cyclic maintenance

- Overall, all OCs achieved a good level of performance for most cyclic maintenance activities.
- There is room for improvement in NE and SE for weed control.
- With the exception of SW where performance was good, there is room for improvement by the other OCs in gully cleaning and harrowing of filter drains.
- Overall, all OCs performed well in completing their cyclic maintenance programmes for structures.

Reactive maintenance

- A second successive harsh winter resulted in a significant increase in the number of Category 1 defects in need of repair across all four Units.
- Overall, performance against the key performance indicator (KPI) was poor in NE and NW, and fair in the SE and SW. It is, however, recognised that the OCs all performed well given the severity of winter with additional resources being diverted to tackle the increase in Category 1 defects.

- The OCs all responded well to the increased number of emergencies across the network.

Winter

- Given the severity of the 2010/11 winter period, one of the coldest in the last 50 years, all the OCs delivered a strong performance. Some slight dips were, however, experienced in the winter service KPIs.
- There were fewer closures than in 2009/10 but more than in previous years, reflecting the winter conditions.
- Highly disruptive closures of M8 westbound on 6, 7 and 8 December 2010 and M8, M9 and M876 on 5 January 2011 led to the introduction of further measures to enhance winter resilience.

Planned maintenance

- Overall, planned maintenance activities were delivered to a fair standard by all OCs. There were general improvements in workmanship, supervision and record keeping.
- Traffic management issues were identified with all four OCs.

- As a result of the severe winter, £4.0m was made available to the OCs to address the significant increase in carriageway defects across the network. Justification reports were provided by all OCs in advance of monies being allocated.
- All OCs performed well carrying out structures maintenance schemes.

Network maintenance



Cyclic maintenance

The OCs are required to update RMMS as they carry out cyclic maintenance activities in order to keep the network operational, safe and tidy. They are also required to maintain records for cyclic maintenance carried out to structures.

3.1 Cyclic maintenance

Spend on cyclic maintenance

Total spend on cyclic maintenance during 2010/11 was £4.9m.

Grass cutting

NE - BEAR ★★★★★☆

Grass cutting was again carried out to a good standard, however, there were occasions when the required frequency was not adhered to. This left significant gaps between swathe cuts and strimming. There were also occasions where areas such as the backs of footpaths and visibility splays remained uncut.

SE - BEAR ★★★★★☆

After a slow start to the season, when the specification was not being met, the OC's performance improved. Overall, performance has dipped to fair compared to last year. PAGplus will monitor this activity closely during 2011/12.

NW - Scotland TranServ ★★★★★☆

Overall, grass cutting performance remained fair. At the start of the season there were many instances where the specification was not fully achieved.

However, performance improved throughout the season.

The modified cutting regime introduced last year in NW for high amenity areas continued to work well.

PAGplus will monitor this activity closely during 2011/12.

SW - Amey ★★★★★☆

Amey's performance remained good. There was no evidence of grass being out of specification during the growing season. There were, however, issues with the removal of grass cuttings after the first cut.

Weed control

NE - BEAR ★★★★★☆

Weed control was poor, having dipped from last year. Drainage channels and central reserves were the worst affected. PAGplus will work closely with the OC to ensure performance improves during 2011/12.

SE - BEAR ★★★★★☆

Throughout the period, performance was poor, having dipped from last year. It was evident that some weed treatment carried

out was ineffective and the removal of weeds was also an issue (see figure 16).

PAGplus will work closely with the OC to ensure performance improves during 2011/12.



Figure 16 - Weed growth prior to treatment at Ancrum bridge on A68 in SE

NW - Scotland TranServ ★★★★★☆

Overall, performance was fair, with some improvement from 2009/10. Issues with weed growth remained evident, with lack of hand pulling of weeds and ineffective management of injurious weeds being particular issues. PAGplus will monitor this activity closely during 2011/12.

SW - Amey ★★★★★☆

Amey maintained its good performance from last year, with few issues being identified. Weed growth in filter drains

Network maintenance



and injurious weeds were dealt with appropriately.

Controlling vegetation

NE - BEAR ★★☆☆☆

Performance was again good. Only a few locations were identified where foliage obscured signs.

SE - BEAR ★★★★★

Performance was excellent with no issues raised throughout the year. This was an improvement on last year.

NW - Scotland TranServ ★★★★★

With the exception of some hedge trimming in Thurso and other minor scrub issues, Scotland TranServ's performance was good and improved from last year.

SW - Amey ★★☆☆☆

Amey's performance significantly deteriorated during 2010/11. Overall, performance was fair, with some signs obscured by foliage being dealt with pro-actively. PAGplus will monitor performance closely during 2011/12.

Litter picking

Responsibility for litter picking on the trunk road network excluding motorways and some dual carriageways rests with the local authorities.

Each OC is required to issue its grass cutting programme to appropriate local authorities. This is intended to ensure an integrated approach to cutting grass and litter picking. If litter is not removed prior to grass being cut it is shredded by grass cutting equipment. Shredding of litter makes removing it more difficult.

If a local authority is deficient in its litter picking duties, the OCs are responsible for contacting the local authority to highlight their concerns.

Sweeping, cleansing and litter

The M8 corridor in SE and SW continues to have litter hotspots, reflecting public behaviour. All parties have continued to work together to address this issue.

NE - BEAR ★★☆☆☆

BEAR's performance deteriorated from 2009/10 and was fair. Lack of effective channel sweeping was an ongoing issue.

BEAR also failed to provide its grass cutting programme to the local authorities on time. PAGplus will monitor the OC's performance closely during 2011/12.

SE - BEAR ★★★★★

Following the issue of an NNC, by PAGplus in 2009/10, BEAR delivered a good performance this year. However, BEAR failed to supply its grass cutting programme to the local authorities within the required timescale.

Additional resources were used for litter picking and sweeping on M8 and M9 after the severe winter weather.

NW - Scotland TranServ ★★☆☆☆

Scotland TranServ is not responsible for any direct litter clearance within the Unit. This responsibility rests with the local authorities. However, NW failed to supply its grass cutting programme to the local authorities on time and it could have been more proactive in highlighting its concerns to the local authorities.

Overall, performance was fair and PAGplus will monitor performance closely in 2011/12.

SW - Amey ★★☆☆☆

Amey's performance continued to be good. However, it also failed to supply its grass cutting programme within the required timescale to the local authorities.

Network maintenance



Signing, signals, road markings and studs

NE - BEAR ★★☆☆☆

Overall, performance was again fair. There was an ongoing issue with the slow replacement of road markings and road studs following resurfacing and patching operations. PAGplus will continue to monitor performance closely during 2011/12.

SE - BEAR ★★★★★

BEAR continued to deliver a good performance during 2010/11. Some minor issues concerning the categorisation of chevron defects were rectified.

NW - Scotland TranServ ★★★★★

Scotland TranServ delivered a good performance and has improved since last year. There was a slight drop in performance towards the end of the period, with the slow replacement of road markings after resurfacing.

SW - Amey ★★★★★

Amey maintained its excellent performance this year.

Lighting - all Units ★★★★★

All OCs delivered an excellent performance during 2010/11. This excellent performance has been sustained by NE and SW from 2009/10, with improved performance achieved by SE and NW (see figure 17).

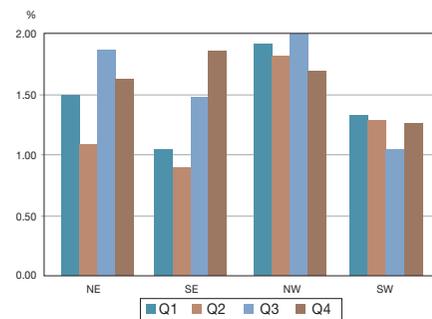


Figure 17 - KPI for lamp outages

Safety fences, barriers and fencing

NE - BEAR ★★★★★

Performance was again good, with the majority of safety fence repairs carried out within the required timescale. A review of vehicle restraint systems (VRS) confirmed the OC was performing well in delivering its obligations.

SE - BEAR ★★★★★

As in 2009/10, BEAR's performance was good. A monitoring exercise by PAGplus confirmed VRS records to be well maintained.

NW - Scotland TranServ ★★☆☆☆

Some improvement was noted in NW during 2010/11, with performance now fair.

There were issues identified with the inspection regime for wire rope tensioning, which resulted in an NNC being issued and subsequently closed.

PAGplus will continue to monitor performance closely during 2011/12.

SW - Amey ★★★★★

There continued to be a good performance by Amey. Some difficulty in retrieving records for tensioning of wire rope caused concern, but was quickly resolved by the OC.

Drainage, gullies and ironwork

NE - BEAR ★★☆☆☆

BEAR's performance has dipped significantly during 2010/11 to poor. Blocked gullies were noted on several routes and the OC failed to substantially

complete its gully cleaning programme, for which an NNC was issued.

In addition, harrowing of filter drains was assessed as ineffective and to a poor standard.

PAGplus carried out a gully cleaning and drainage review, which concluded the level of records entered in the RMMS has significantly improved. PAGplus will work closely with the OC during 2011/12 to ensure performance improves.

SE - BEAR ★★☆☆☆

Overall, BEAR's performance has dipped to poor. BEAR received an NNC for failing to complete its 2010/11 gully cleaning programme.

Inadequate harrowing of filter drains in verges was also an issue identified by PAGplus. PAGplus will work closely with the OC during 2011/12 to ensure performance improves.

NW - Scotland TranServ ★★☆☆☆

Scotland TranServ's performance has deteriorated to poor. PAGplus identified issues with defects not being recorded in the RMMS and defects not being repaired within the required timescale.

Network maintenance



Harrowing was largely ineffective and to a poor standard. This was despite the OC having deployed significant resources following the issue of an NNC by PAGplus the previous year. Significant improvement is required. PAGplus will work closely with Scotland TranServ during 2011/12 to ensure performance improves.

SW - Amey ★★★★★☆

Amey's performance continues to be good. However, there is scope for improvement on record keeping.

Structures

NE, NW and SW - BEAR, Scotland TranServ and Amey ★★★★★☆

The timing of undertaking cyclic maintenance to structures varied due to staff being reassigned to other duties during the extreme winter weather. NE, NW and SW achieved substantial completion of their programmes by 31 March 2011.

SE - BEAR ★★★★★★

SE was the only OC to achieve 100% completion of its annual programme by 31 March 2011.

Category 1 defects

Category 1 defects are the most serious defects which, once identified by the OC, should be made safe within 24 hours or quicker for certain defects and permanently repaired within 28 days. Details of all Category 1 defects are recorded in the RMMS along with details and dates of all temporary and permanent repairs.

Damaged bridge parapets identified as Category 1 defects are made safe using temporary safety barriers. However, these repairs can take longer due to the need to obtain or fabricate parts and use sector scheme trained and registered contractors.

3.2 Reactive maintenance

Spend on reactive maintenance

Total spend for reactive maintenance during 2010/11 was £8.4m. The breakdown between the Units and the activities is shown in figure 18.

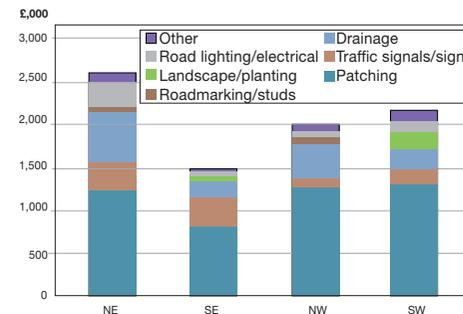


Figure 18 - Reactive spend in the Units and activities breakdown

Carriageway patching was the most significant operation undertaken by all OCs. A comparison between the reactive maintenance spend for the last two years is shown in figure 19.

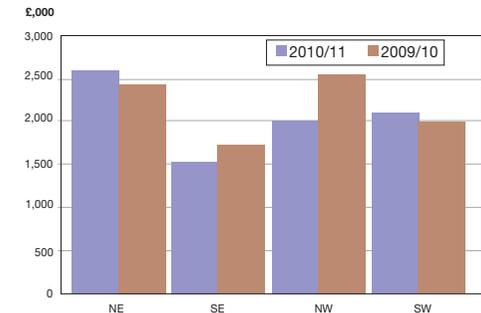


Figure 19 - Reactive spend 2009/10 v 2010/11

3.2.1 Category 1 defects

Due to the extreme winter weather and the resultant impact on carriageway surfaces, the OCs faced a significant increase in the number of Category 1 defects.

As a result of the severe winter conditions, all the OCs experienced difficulty in maintaining their normally high performance against the KPI target for repairing Category 1 defects (see figure 20). Despite this, PAGplus considers all OCs to have performed well, deploying additional resources to ensure the network remained safe until permanent repairs were completed.

Network maintenance



Unit	2010/11 Average Q1-Q4	2010/11 Average Q4	2010/11 Average Q1 - Q3	2009/10 Average Q1-Q4	2008/09 Average Q1-Q4
NE	81	62	87	90	94
SE	90	72	96	89	97
NW	88	79	90	92	82
SW	87	87	90	80	78

Figure 20 - OC KPI performance in repairing Category 1 defects

NE - BEAR ★★☆☆☆

BEAR's KPI performance has dipped from last year to poor. Performance deteriorated significantly in the third and fourth quarters as a result of the increased number of defects recorded and attributed to winter.

PAGplus will work with the OC during 2011/12 to ensure performance improves.

SE - BEAR ★★☆☆☆

Overall, BEAR's KPI performance was assessed as fair. After a strong start, it failed to quickly recover its KPI performance, following the severe winter conditions. As a result, BEAR received an NNC. PAGplus will monitor performance closely during 2011/12.

NW - Scotland TranServ ★★☆☆☆

Scotland TranServ's KPI performance dipped from last year and is assessed as poor.

Performance initially improved during the first two quarters and then progressively dipped during the third and fourth quarters. It also failed to quickly recover its KPI performance to the expected high levels.

PAGplus will work with the OC during 2011/12 to ensure performance improves.

SW - Amey ★★☆☆☆

Amey's performance improved during 2010/11 with performance assessed as fair. There was a dip in the third quarter, but it recovered well, and dealt effectively with defects resulting from the severe winter weather.

PAGplus will monitor performance closely during 2011/12.

Network maintenance



Emergencies

The OCs must provide resources to deal immediately with emergencies on the network or to assist the emergency services.

Emergencies include:

- debris removal
- overturned lorries
- road traffic accidents
- landslips
- flooding
- serious carriageway defects
- bridge/gantry strikes
- spillages
- incidents due to adverse weather.

The OCs are required to respond to emergencies as quickly as possible and within specific maximum timescales, dependant on the type of road.

3.2.2 Emergencies

Spend on emergencies

Total spend for attending emergencies during 2010/11 was £1.3m (excluding TRISS).

Trunk road incident support service (TRISS)



Figure 21 - TRISS providing cover to a broken down vehicle

TRISS has now been operational in SW for six years, four years in SE and two years in NE. Transport Scotland does not require a TRISS in NW.

TRISS operates on routes identified as having the potential for major delays due to breakdowns or other incidents.

The overall aims of TRISS are to:

- Clear up incidents quickly
- Reduce congestion
- Free up police time.

TRISS vehicles are specially adapted and equipped, high roofed liveried vans (see figure 21). They are operated by trained staff working for the OCs. The target time for TRISS to get to an incident is 20 minutes if called out by Traffic Scotland, the OC or the police.

Emergency response

In addition to TRISS, each OC is responsible for dealing with emergencies within specified timescales.

The OCs dealt well with emergencies during the year, responding quickly and professionally to minimise disruption to road users.

All OCs had an increase in emergency incidents, particularly regarding carriageway defects, following the severe winter conditions through December 2010 and January 2011.

A KPI is used to measure whether the OCs' response times are within that allowed by the 3G contracts. See figure 22 for a comparison of performance for emergency response.

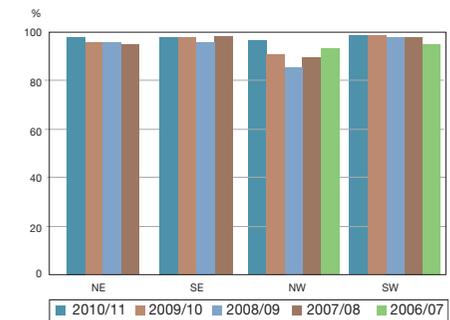


Figure 22 - Emergency response KPI

NE - BEAR ★★★★★☆

The OC's performance in responding to emergencies was again good. BEAR reacted well to numerous requests for road closures and diversions due to road traffic incidents.

SE - BEAR ★★★★★☆

BEAR continued to provide a good level of performance in responding to a wide range of emergencies.

Network maintenance



NW - Scotland TranServ ★★★★★☆

Overall, performance was good as in 2009/10. An initial improvement in its KPI performance was not sustained by Scotland TranServ through the last quarter of 2010/11.

On 6 June 2010, a train was derailed above A85 at Cruachan (see figure 23).



Figure 23 - 1,000 tonne crane lifting the derailed carriage at Cruachan on A85 in NW

The OC responded very well to the incident, setting up and maintaining a diversionary route and working closely with Network Rail, its suppliers,

emergency services and Transport Scotland. It was also required to arrange inspection and monitoring of a structure affected by the incident clear-up operation.

The road was re-opened after recovery of the train and completion of the environmental clean-up on 13 June 2010.

SW - Amey ★★★★★☆

Amey continued to be good at responding to the various types of emergencies. Its overall KPI performance did, however, dip slightly from 2009/10.

Hazard notices

Hazard notices are issued to OCs immediately when PAGplus identifies hazardous situations. Hazards found on the network can include:

- Poor traffic management
- Faulty traffic signals
- Exposed electrical wiring

- Flooding
- Missing/broken ironwork and gullies
- Dangerous carriageway defects.

A total of 20 hazard notices were issued by PAGplus during 2010/11 (see figure 24) compared with 17 for 2009/10. The increase is attributed to more traffic management issues being identified. All parties are working together to ensure compliant traffic management is in place during all operations.

Unit	NE	SE	NW	SW
No of hazard notices issued	5	4	7	4

Figure 24 - Number of hazard notices issued

Network maintenance



Winter treatments

During the winter period, which runs from 1 October through to 15 May, the OCs must minimise delays and disruptions caused by snow and ice. To do this, the OCs carry out precautionary and reactive winter treatments.

When forecasts change significantly or surface conditions become unexpectedly icy, reactive treatments are undertaken. The response times for these reactive treatments are monitored by a KPI.

The OCs decide which treatments are necessary to comply with the 3G contract. They are also required to keep records of the work they do to maintain the network in winter.

3.2.3 Winter

Winter service

Total spend on winter service during 2010/11 was £8.7m, approximately 6% of the overall spend on the network.

The 3G contracts require the OCs to provide a 24-hours a day, 7 days a week dedicated and efficient service throughout the winter period. The objective is to keep the network free from ice and snow, as far as is reasonably practicable, hence reducing the risk to road users (see figure 25).



Figure 25 - A95 free of ice and snow in NE

Winter weather conditions

Information from the Met Office indicated that Scotland had the second coldest winter since 1978/79, with only the 2009/10 winter being colder.

December was exceptionally cold across the UK and was the coldest in over 100 years. There were widespread snowfalls in December and very cold conditions persisted until mid January. The OCs worked continuously throughout the period to minimise the impact on the network.

The effectiveness of salt is greatly reduced when temperatures drop substantially below freezing. The severe conditions experienced during December and January, made some treatments ineffective. As a result alternative treatments such as the use of grit were implemented.

Performance assessment

PAGplus assessed the OCs' performance for the following over the 2010/11 winter period:

- winter readiness
- winter decision making and actions
- winter service KPIs
- management of salt stocks
- road closures.

Winter readiness

- all Units ★★★★★

Winter readiness audits by PAGplus confirmed the OCs were prepared in accordance with the requirements of the 3G contracts.

Winter decision making

- all Units ★★★★★

PAGplus' monitoring and auditing of the OCs winter decision-making and subsequent actions confirmed that these were appropriate.

PAGplus carried out investigations into closures of M8 westbound on 6, 7 and 8 December 2010 and M8, M9 and M876 on the morning of 5 January 2011. This found that BEAR in SE was carrying out its winter service in accordance with the 3G contract requirements.

As a result of the increased severity of recent winter events, Transport Scotland, with the assistance of the OCs, introduced further measures to enhance future winter resilience. In addition, a full review of winter resilience is being undertaken by Transport Scotland in advance of the 2011/12 winter period.

Network maintenance



Winter service KPIs

To measure how well the OCs carry out their winter duties they report their performance monthly during the winter period using three KPIs. These cover:

- treatment times
- response times
- successful electronic data logger downloads.

KPI for winter service treatment times

This measures OC performance in completing precautionary treatments across all routes within the contractual time of two hours (see figure 26).

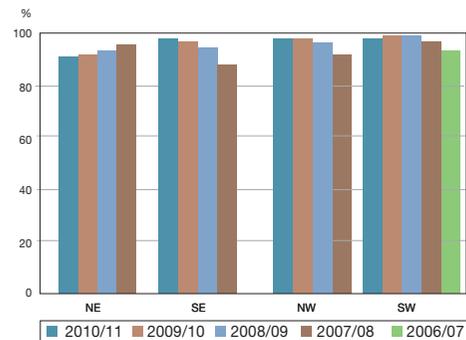


Figure 26 - Comparison of KPI for winter treatment times

NE - BEAR ★★☆☆☆

Overall, BEAR's performance continued to be fair. Affected by a dip in performance during November and December. As a result, PAGplus will work closely with the OC to ensure performance improves in 2011/12.

SE - BEAR ★★★★★

BEAR delivered an excellent and improved KPI performance.

NW - Scotland TranServ ★★★★★

Overall, Scotland TranServ's KPI performance continued to be excellent.

SW - Amey ★★★★★

Amey continued to deliver an excellent KPI performance.

KPI for winter service response times

This measures how quickly a reactive de-icing treatment commences (see figure 27). Treatment must start within one hour of the decision being made.

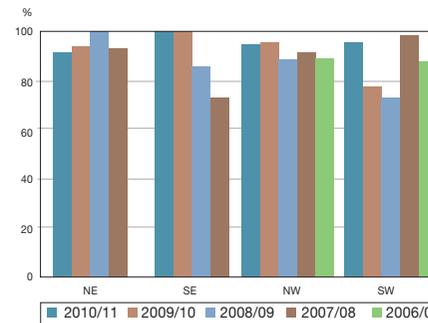


Figure 27 - Comparison of KPIs for winter response times

NE - BEAR ★★★★★

BEAR's performance continued to be good. There was a slight drop in performance from last year.

SE - BEAR ★★★★★

BEAR delivered an excellent and sustained performance.

NW - Scotland TranServ ★★★★★

Scotland TranServ's performance continued to be good.

SW - Amey ★★★★★

Amey's performance was good with a significant improvement from the previous year.

KPI for successful electronic data logger downloads

The data loggers record, in electronic format, the de-icing material spread rate, location, date and time. The KPI measures the percentage of successful electronic data logger downloads (see figure 28).

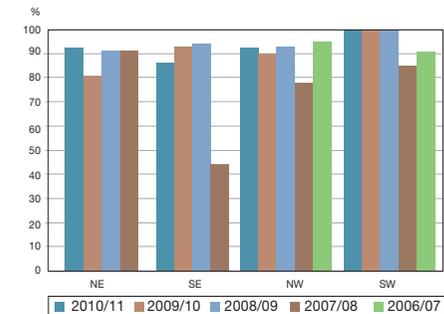


Figure 28 - Comparison of KPIs for successful data logger downloads

NE - BEAR ★★☆☆☆

BEAR delivered a fair and improved performance from the previous year. PAGplus will continue to monitor performance closely during 2011/12.

Network maintenance



SE - BEAR ★★☆☆☆

Overall, BEAR's performance was poor having deteriorated from 2009/10. Poor figures for December and January, in particular, affected the overall KPI. During the severe weather data logger failures occurred in some frontline vehicles which were not removed for repair as it would have adversely affected route treatment and snow clearance operations.

PAGplus will work with the OC to ensure performance is substantially improved during 2011/12.

NW - Scotland TranServ ★★☆☆☆

Scotland TranServ delivered a fair and slightly improved performance from the previous year.

It was noted that poor mobile telecommunications reception continued to impact on successful data downloads. This ongoing problem affects certain areas of NW.

PAGplus will continue to monitor the OC's performance during 2011/12.

SW - Amey ★★★★★

Amey continued to deliver an excellent performance.

Management of salt stocks

- all Units ★★★★★

Following the severe winter in 2009/10, measures were taken to improve resilience in the event of salt stock shortages. Winter 2010/11 again proved challenging and all OCs were proactive in managing stocks and maintained close liaison with Transport Scotland's resilience group. This group was activated to manage the winter response with input from Scotland's emergency services, SEPA, Transport Scotland, Road and Rail Operators and the police.

Road closures - all Units ★★★★★

Snowfalls and widespread freezing conditions again caused very significant disruption across the UK with transport particularly affected. The OCs demonstrated good performance throughout the period to minimise disruption to road users.

There were fewer closures due to winter conditions than in 2009/10 but more than in the years preceding 2009/10 reflecting the continued harshness of the winter period (see figure 29).

These closures were, however, on the more heavily trafficked routes in the central belt. As a result the effect of the associated disruption was more severe.

The closures of significant parts of the main motorway network on 6, 7 and 8 December 2010 and 5 January 2011 was, however, disappointing to all parties involved in delivering the winter service. Transport Scotland is reviewing its winter resilience as discussed earlier in this section.

Winter period	No of winter related major incident road closures
2010/11	15
2009/10	21
2008/09	3
2007/08	6
2006/07	3
2005/06	7
2004/05	4
2003/04	11
2002/03	4

Figure 29 - Number of winter related major incident road closures over the last 9 years

Network maintenance



Maintaining roads and structures

Planned maintenance is carried out to maintain the asset value of the network. This typically includes:

- reconstruction and resurfacing of carriageways
- application of surface dressing and anti-skid surfacing
- upgrading safety fencing
- replacing road markings and studs
- repairs to structures, including waterproofing and joint replacement.

These operations are carried out by the OC for scheme values typically up to £250k. Larger schemes are procured using works contracts (see section 4.1).

3.3 Planned maintenance

3.3.1 Roads

The OCs are responsible for the delivery of operations, although sub-contractors may be used for specialist activities and major operations. Workmanship, supervision and record keeping are monitored.

Monitoring of schemes was carried out by PAGplus throughout 2010/11. This included operations such as carriageway reconstruction, patching, filter drain recycling, rock netting and earthworks construction.

NE - BEAR ★★☆☆☆

Overall, BEAR's performance remained fair.

Workmanship, supervision and records were generally good and improved from 2009/10. Traffic management issues were, however, identified by PAGplus (see figure 30). This resulted in the issue of hazard notices and an NNC. The issues raised were addressed effectively by the OC and the NNC was closed.

PAGplus will continue to monitor performance closely during 2011/12.



Figure 30 - No lateral safety zone at traffic management on A985 in NE

SE - BEAR ★★☆☆☆

Overall, BEAR delivered a fair performance, dipping from last year. Workmanship, supervision and records continued to be to a high standard, as in 2009/10. A general improvement was also recorded in the measurement of operations.

Traffic management issues were, however, identified by PAGplus. This resulted in the issue of hazard notices and an NNC. The issues raised were addressed by the OC and the NNC was closed. PAGplus will monitor performance closely during 2011/12.

NW - Scotland TranServ ★★☆☆☆

Overall, performance has dipped to fair.

However, further improvement by Scotland TranServ was recorded in the quality of record keeping for operations, including measurement and supervision records (see figure 31).

Traffic management issues, identified by PAGplus, resulted in the issue of hazard notices and an NNC. The issues raised were addressed effectively by the OC.

PAGplus will monitor performance closely during 2011/12.



Figure 31 - Pavement reinforcement being laid prior to surfacing material on A87 in NW

Network maintenance



SW - Amey ★★☆☆☆

Overall, performance has dipped to fair.

Amey's operations during 2010/11 were well resourced with good supervision and site records.

Traffic management issues were identified by PAGplus. This resulted in the issue of hazard notices and an NNC. The issues raised were addressed by the OC effectively and the NNC was closed.

PAGplus will monitor performance closely during 2011/12.

Patching of carriageways as a result of severe winter - all Units

★★★★★

An additional £4.0m was provided by Transport Scotland in early 2011 to help address the impact that winter had on the condition of the road network (see figure 32). All the OCs submitted detailed reports justifying their allocation from this additional budget.

An excellent response was shown by each OC in allocating the additional available budget to the sections of roads in most urgent need of repair.



Figure 32 - Carriageway defects on A90 in NE

Structures

The planned structures inspections together with other priority remedial works already identified feed into the 1 and 3 year programmes of planned maintenance needs, which are updated annually. This maintenance work is programmed based on the budgets available to each OC.

Planned maintenance schemes are vital to maintain structures in good servicable condition and require careful planning and coordination.

The OCs design and implement planned maintenance schemes. This work includes:

- re-waterproofing of bridge decks
- resurfacing of bridge decks
- replacement of deck joints
- concrete repairs
- repainting of steelwork
- repair and replacement of parapets
- repair of scour damage at watercourses

3.3.2 Structures

NE - BEAR ★★★★★

BEAR's performance was excellent, improving from the previous year.

The OC planned and managed significant works at M90 Craigend complex. In the same area, Friarton Bridge has benefited from the installation of new internal walkways (see figure 33) and cracks in one of the river piers were repaired using a resin injection system.



Figure 33 - New internal walkways within Friarton Bridge on M90 in NE

Network maintenance



A92 Edenbank Bridge was identified as in need of urgent strengthening and repair following a period of extensive monitoring. The OC reacted quickly to have a temporary propping system erected (see figure 34) and arranged for ground penetrating radar and ground coring surveys to be undertaken. Design work is now complete and remedial strengthening is programmed for 2011/12.



Figure 34 - Temporary propping system at Edenbank Bridge on A92 in NE

SE - BEAR ★★★★★

BEAR's performance continued to be excellent.

BEAR managed the programme of bridge refurbishment well.

At Dovecote Culvert, on A7, emergency work to rebuild a collapsed spandrel wall following frost heave due to the severe winter, on a masonry bridge, provided an opportunity to construct a strengthened parapet in reinforced concrete which was clad in the original stone to good effect.

The watercourse at M80 Castleburn culvert had de-stabilised the motorway embankment. The OC constructed a new concrete foundation to the washed out area, modified the upstream weir and lined the invert with 'concrete cloth' to retrain the watercourse and reduce the future effects of scour.

NW - Scotland TranServ ★★★★★

The OC's performance remained good.

Scotland TranServ took forward several bridge schemes throughout the period some of which, particularly those on A82 canal swing bridges, were progressed well.

SW - Amey ★★★★★

Amey's performance was again good.

The OC supervised work at several structures to carry out a full deck refurbishment programme.

A further 15 motorway structures had deck joint replacements carried out utilising night-time working to minimise congestion. Eleven structures that have 'high risk' parapets were also prioritised for work during the year.

Chapter 4

Network improvement

Key points

Works contracts

- The standard of works contracts' tender documents prepared by all four OCs continued to be good with only minor issues noted.
- The standard of supervision on works contracts was good, except in SW where performance was fair.

Improving safety

- Various measures were introduced including the implementation of new technology to help improve road safety.
- Safety schemes and minor improvement schemes were delivered well.

Network improvement



Works contracts

Schemes with an estimated value between £250k and £5m are generally put out to tender by the OCs as works contracts. The OCs manage the procurement of works contracts through design to construction on behalf of Transport Scotland.

Schemes of a value greater than £5m are generally managed by Transport Scotland's Major Transport Infrastructure Projects Directorate team and are outside the OCs' responsibilities.

4.1 Works contracts

Works contracts are carried out to help ensure that the trunk road network continues to operate to the required standard. In 2010/11, this included carriageway reconstruction, carriageway resurfacing, bridge widening, waterproofing of bridge decks and structures refurbishment.

Figure 35 shows the types of schemes carried out under works contracts during 2010/11. The value of these contracts totalled £27.9m, a reduction of £4.5m from the previous year.

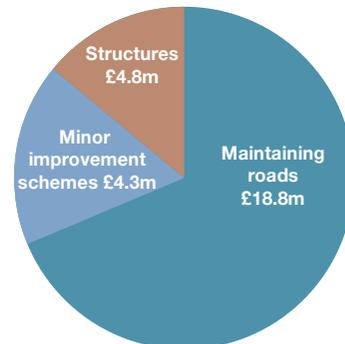


Figure 35 - Type of schemes carried out under works contracts during 2010/11

Tender Documents - all Units ★★★★★☆

The OCs submit tender documents to PAGplus for detailed review prior to contractors being invited to tender. Each year, at least 25% of tender documents must be reviewed in detail by PAGplus.

A total of 17 sets of tender documents were submitted by the OCs for review during 2010/11. This compared to 31 sets of tender documents in 2009/10. Out of the 17 sets, six (35%) were selected for review in detail by PAGplus. Further information is given in figure 36.

The standard of preparation of tender documents by all OCs remained good with only minor issues noted.

Unit	Number received 2010/11	Number received 2009/10
NE	4	6
SE	7	9
NW	2	11
SW	4	5
Total	17	31

Figure 36 - Number of draft tender documents received by PAGplus in 2009/10 and 2010/11

Public Contracts Scotland advertising portal - all Units ★★★★★☆

Since December 2009, OCs must advertise tendering opportunities on behalf of Transport Scotland on the Scottish Government Public Contracts Scotland advertising portal (PCS). PAGplus found that all the OCs were demonstrating good compliance with this new 3G contract requirement.

Supervision

NE - BEAR ★★★★★☆

The standard of supervision of works contracts remained good.

BEAR supervised construction on a variety of works contracts in 2010/11, despite contending with extreme weather conditions for prolonged periods.

Schemes included carriageway inlays and overlays A96 Huntly Roundabout to Westerton (2010/11: £104k, total spend: £1.83m) and A96 Tradespark to Arderseir (2010/11: £1.53m), along with carriageway reconstruction on A90 Kinfauns to Madoes (2010/11: £771k).

Network improvement



A95 Poppin Brae (£405k) comprised a full reconstruction of a localised section of carriageway and the construction of a contiguous piled wall (see figure 37).



Figure 37 - Contiguous piled wall being installed at Poppin Brae on A95 in NE

SE - BEAR ★★★★★

BEAR continued to deliver a good performance on the supervision of works contracts.

Bridges work contracts comprised:

- A68 Inchbonny Bridge (2010/11: £117k, total spend: £353k)
- M8 J3 bridges (2010/11: £147k, total spend: £746k)
- M9 Duntarvie and Winchburgh loop rail bridge (2010/11: £203k, total spend: £527k)
- A68 Ferniehirst and Hundalee bridge refurbishments (2010/11: £240k).

Carriageway reconstruction and inlays were on the M8 J3 to River Almond Eastbound Phases 1 and 2 (2010/11: £2.9m), M9 between J5 and Glensburgh Northbound (2010/11: £653k) M9 J6 to J5 Southbound (2010/11: £632k) (see figure 38).



Figure 38 - Carriageway reconstruction at J6 to J5 on M9 in SE

NW - Scotland TranServ ★★★★★

Scotland TranServ's supervision of works contracts remained good.

During 2010/11 Scotland TranServ designed, procured and supervised the construction of three essential structural maintenance schemes. These were A87 An Coileach (2010/11: £1.58m, total spend: £3.60m), A9 Ralia (2010/11: £2.3m, total spend: £2.79m) and A9 Faskally (2010/11: £1.08m).



Figure 39 - Ba bridge replacement on A82 in NW

Bridge works contract included A82 Stuckendroin (2010/11: £802k, total spend: £1.19m) and A82 Ba Bridge (2010/11: £1.69m, total spend: £2.18m) (see figure 39).

The new overtaking lane at A9 Moy 2+1, was completed this year (2010/11: £91k, total spend: £2.72m). The Stage 3 road safety audit identified a potential risk of overtaking traffic encroaching on the north junction. As a precautionary measure, the overtaking lane was closed off and a proposed reconfiguration of the road marking layout is under consideration.

SW - Amey ★★★★★

Amey's performance dipped to fair. Costs increased substantially between tender and completion on the M8 Baillieston high mast refurbishment (2010/11: £489k, total spend: £1.29m). As a result, PAGplus

carried out a review of the scheme. This resulted in an NNC being issued, which Amey responded to effectively.

The £1.3m reconstruction of 1.7km of A76 within the town of Mauchline was completed in 56 days (2010/11: £1.3m). This was 17 days ahead of programme and on budget (see figure 40).



Figure 40 - Structural maintenance scheme at Mauchline on A76 in SW

The OC supervised construction works for M74 Raith Bridge refurbishment phase 3 contract (2010/11: £394k). Work did overrun slightly, however, the OC and contractor performed very well with the whole scheme being delivered within budget.

PAGplus will monitor this activity closely in 2011/12.

Network improvement



Safety improvements

OCs identify and design a wide range of road safety improvement schemes. Types of schemes delivered by the OCs are:

Strategic road safety schemes

- new signing and road markings
- anti-skid treatments
- traffic calming measures
- route accident reduction plans (RARPs)

Minor improvements

- road re-alignments
- junction improvements
- installation of overtaking lanes
- installation of new lighting.

4.2 Improving safety

4.2.1 Strategic road safety schemes

OCs analyse accident data annually. Transport Scotland's moving cursor programme (MCP) is used to identify locations with clusters of three or more personal injury accidents over the preceding three year period.

Accident prevention schemes and safety improvements are subsequently identified and prioritised.

The OCs are required to assist in implementing the Scottish Government's Strategic Road Safety Plan. This aims to reduce the risk to road users and mitigate the effects when accidents do occur.

The OCs liaise with Transport Scotland, appropriate local authorities and the police when preparing their lists of accident prevention schemes. This liaison continues throughout the design and construction phases.

NE - BEAR ★★★★★

BEAR's performance was again excellent. The installation of motorcycle safety measures at various bends on A95 and safety barrier on A96 at Nethererton, were among the schemes completed in 2010/11 (see figure 41).



Figure 41 - Safety barrier installation at Nethererton on A96 in NE

SE - BEAR ★★★★★

As in 2009/10, BEAR's performance remained excellent. 'Bikeguard' panels were fitted on the southern part of A702 to minimise the severity of injuries resultant from collisions.

Two electronic chevron signs were installed on the trunk road approaches to

A1 at Thistly Cross Roundabout. Once a vehicle is detected on the approaches the LEDs pulse to give an additional warning to drivers that they are approaching the roundabout.

NW - Scotland TranServ ★★★★★

Scotland TranServ's performance was once again excellent. Scotland TranServ carried out numerous accident prevention measures identified from the annual MCP.

The OC continued to develop and implement mass action and risk reduction measures. Route Accident Reduction Plans (RARPs) were devised for individual routes (see figure 42).

Route safety files were produced for all 13 routes, as were speed limit reviews.



Figure 42 - Junction Safety Improvement Scheme at Blar Mhor on A830/B8006 in NW

Network improvement



SW - Amey ★★★★★

Amey's performance remained excellent. The ongoing introduction of vehicle activated signs continued in 2010/11 with installations on A76, A77 and A78.

4.2.2 Minor improvement schemes

NE - BEAR ★★★★★☆

BEAR's performance was again good. The drainage improvements at A92 Edenbank Bridge, which involved the stabilisation of the carriageway, were constructed at a cost of £390k, in 2010/11.

Other treatments designed or constructed included ghost island installations, pedestrian improvements, dual carriageway central reserve gap closures and merge lane installations.

SE - BEAR ★★★★★☆

The performance of BEAR continued to be good. The replacement of a masonry culvert at A1 Linkshead Farm (£224k) for flood alleviation was completed in March 2011 (see figure 43).



Figure 43 - Culvert Replacement at Linkshead Farm on A1 in SE

As part of its road/rail interface programme, improvement measures were introduced at A702 Woodend Farm and A702 south of Hartside (costs accrued to 2009/10).

Vehicle restraint system improvement works were installed over an existing watercourse at A68 Juniperlea (£56k) and at two weather station sites on A1 (£43k).

NW - Scotland TranServ ★★★★★☆

Scotland TranServ's performance during 2010/11 remained good.

A diverse range of improvements were introduced including the construction of a

large precast culvert at A83 Rest and Be Thankful (£568k). This was the final phase of a series of high profile measures to mitigate the effect of landslides at this site (see figure 44).

Smaller scale improvements were also constructed, including new pedestrian crossings, lay-by improvements and provision of new safety barriers across the Unit.



Figure 44 - Culvert Improvement scheme at Rest and Be Thankful on A83 in NW

SW - Amey ★★★★★☆

Amey's performance remained good.

Alterations to junction layouts on A78 enabled Inverkip Road (costs accrued to 2009/10) to carry two-way traffic again, removing the need for local diversions (see figure 45).



Figure 45 - Roundabout improvement at South Street on A78 in SW

Amey also reviewed locations which suffer from drainage problems. The findings will be used as the basis for developing a future programme of improvement.



Kingshouse on A84 in NW

Chapter 5

Quality of service

Key points

Quality management

- All OCs continued to be certified to BSEN ISO 9001, either directly or through their parent companies.
- The OCs' quality management systems (QMS) remained effective.
- There were reduced number of findings from PAGplus audits.
- OC internal audits resulted in reduced number of non-conformances.

Health and safety management

- All OCs continued to be certified to OHSAS 18001, either directly or through their parent companies.
- OCs continued to develop and improve their health and safety systems
- The OCs were able to demonstrate a highly responsible attitude towards health and safety.
- A zero accident rate remained a key target for all OCs.

Environmental management

- The OCs continued to be certified to BS EN ISO 14001, either directly or through their parent companies.
- OCs continued to develop and improve their health and safety systems
- All OCs were able to demonstrate that their environmental management systems (EMS) operated well.

Information systems

- The system development of SMS and RMMS continued throughout the year by all parties involved.
- All OCs operated a substantially robust contract control and management system (CCMS) during 2010/11.

Continuous improvement

- For the second consecutive year, no remedial notices were issued.
- There was improvement in the OCs' responses to closing out issues.
- PAGplus and the OCs continue to work together to resolve issues identified.



OC management systems

The OCs are required to maintain management systems that comply with:

- BS EN ISO 9001 – Quality management systems
- BS EN ISO 14001 – Environmental management systems
- BS OHSAS 18001 – Occupational health and safety systems.

Management systems refer to a framework of processes and procedures used to ensure that an organisation can fulfill all tasks required to achieve its objectives (see figure 46).

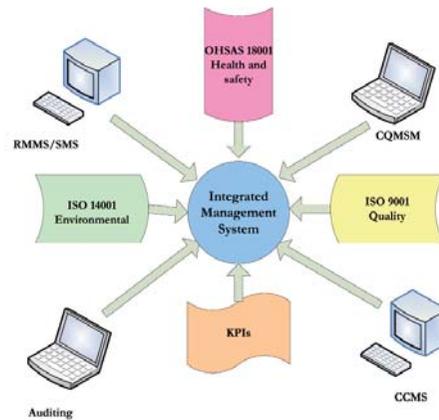


Figure 46 - Processes influencing an Integrated Management System (IMS)

5.1 Management systems

Quality management - maintaining compliance

NE and SE - BEAR ★★★★★

BEAR's overall performance remained good.

BEAR's quality management system (QMS) is well managed, conforming to the requirements of the BS EN ISO 9001:2008. The QMS covers both NE and SE and continued to meet the 3G contract requirements.

BEAR demonstrated continual improvement of its QMS by achieving further National Highways Sector Scheme (NHSS) accreditation.

Three Contract Quality Management System Manager (CQMSM) audits were undertaken by an independent contract quality auditor. Areas audited included accident investigation and prevention and environmental aspects. The majority of non-conformance issues related to operational health and safety, management system documents and planning applications. The audits showed continued compliance with all actions and issues being followed through to completion.

NW - Scotland TranServ ★★★★★

A good and improved performance was delivered by Scotland TranServ.

Scotland TranServ's QMS is well established and continued to meet the 3G contract requirements.

The OC is committed to the implementation of Balfour Beatty Regional Civil Engineering Health and Safety,

Environmental and Quality procedures. These were integrated into its bespoke ProCEL management system.

Four CQMSM audits were carried out during 2010/11 by the OCs' quality auditor. Continued compliance was evident with actions raised completed accordingly. The areas covered by the audits included compliance with plant maintenance, waste management, training and design records.

SW - Amey ★★★★★

Performance in 2010/11 was good, an improvement from the previous year. Amey has an effective and well established QMS.

A total of four CQMSM audits were completed within the contract year by the OCs' quality auditor. These focused on the compliance with human resources systems, training records, procurement, management and performance review. The audits showed continued compliance with the requirements. Most actions and issues were followed through as required.

Quality of service



Quality management - rectifying non-compliance (PAGplus)

OC performance in closing out PAGplus corrections on time is measured by a KPI.

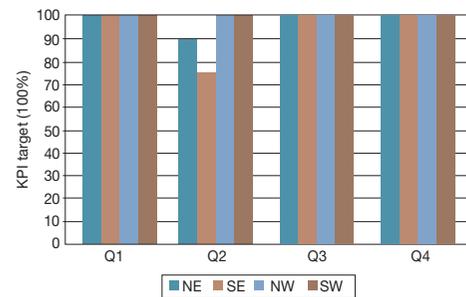


Figure 47 - OC KPI performance in closing PAGplus corrections

NE and SE - BEAR ★★★★★☆

In NE and SE performance was good. In the second quarter NE achieved 89% (8 out of 9) and SE achieved 75% (3 out of 4). In all other quarters 100% was achieved (see figure 47).

NW - Scotland TranServ ★★★★★

The performance in closing out corrections on time was excellent, maintaining 100% during the year. (see figure 47).

SW - Amey ★★★★★

Performance in closing out corrections raised by PAGplus remained excellent, achieving a KPI of 100% for the year (see figure 47).

Quality management - rectifying non-compliance (internal)

The performance of the OCs in closing out internal corrections on time is measured by a KPI.

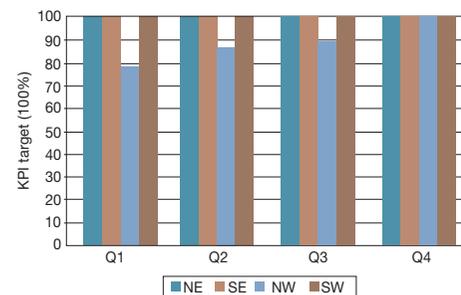


Figure 48 - Internal corrections closed out within stated timescale

NE and SE - BEAR ★★★★★

BEAR achieved a figure of 100%, demonstrating excellent performance in closing out internal corrections (see figure 48).

NW - Scotland TranServ ★★★★★☆

Overall, performance was fair in closing out internal audit corrections within the specified timescale. During the first three quarters of 2010/11 performance was poor. Scotland TranServ revised its procedures, leading to a marked improvement in the last quarter (see figure 48). PAGplus will continue to monitor the OC during 2011/12.

SW - Amey ★★★★★

Amey's performance in closing out internal corrections throughout the year was excellent, achieving the target 100% in all four quarters (see figure 48).

Quality of service



Health and safety

All OCs operate an accredited occupational health and safety management system (OHSAS).

As part of health and safety legislation, OCs report incidents to the Health and Safety Executive (HSE) as required under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR).

The scope of incidents to be reported covers diseases, dangerous occurrences, fatalities and injuries which result in an absence of work of three days or more.

Health and safety management

All OCs are working towards achieving no reportable incidents to the Health and Safety Executive (HSE).

PAGplus carried out a series of audits on a six monthly cycle across all OCs. The first series focused on depots and site operations. The second series focused on traffic management.

NE - BEAR ★★☆☆☆

BEAR's performance dipped to fair with four RIDDORs reported to the HSE (see figure 49).

Two findings were raised at the PAGplus audits.

PAGplus will monitor the OC's performance closely during 2011/12.

SE - BEAR ★★☆☆☆

BEAR's performance dipped to fair.

Two findings were raised during the traffic management audit.

Three RIDDORs were reported during 2010/11(see figure 49).

PAGplus will monitor the BEAR's performance closely during 2011/12.

NW - Scotland TranServ ★★☆☆☆

NW achieved a fair performance dipping significantly from 2009/10.

Four findings were raised at the traffic management audits. The OC actioned issues accordingly.

One RIDDOR was reported to the HSE (see figure 49).

PAGplus will monitor performance closely during 2011/12.

SW - Amey ★★☆☆☆

Amey maintained good performance.

There were no findings raised by PAGplus audits.

One RIDDOR incident was reported to the HSE (see figure 49).

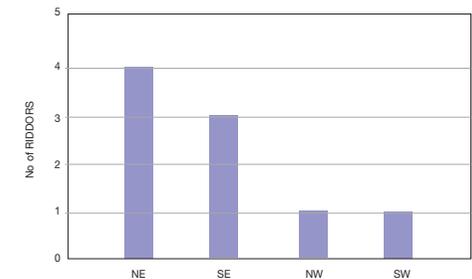


Figure 49 - Operating Companies RIDDOR Performance 2010/11



Environmental management systems (EMS)

A well implemented and managed EMS demonstrates a commitment to improving environmental performance and protection. It should fulfil the requirements of wide reaching environmental legislation and meet stakeholders' expectations for sustainable development.

Environmental management

OC certification to BS EN ISO 14001 is dependent on all its depots and operations being compliant.

PAGplus carried out two EMS audits in each Unit. The audits involved site and depot visits and focused on environmental legislation relating to waste management and pollution control.

NE and SE - BEAR ★★★★★☆

BEAR's performance has improved to good. All relevant environmental legislation was risk-assessed and prioritised by the OC. BEAR assessed operations for compliance through its internal audits.

Environmental issues identified through PAGplus auditing were successfully addressed by BEAR.

One finding was raised in NE for not undertaking environmental reviews of smaller sites.

PAGplus audits in SE highlighted that more effective environmental training was required for both site operatives and design staff.

NW - Scotland TranServ ★★★★★☆

Scotland TranServ maintained the good performance level achieved in 2009/10.

The OC continued environmental monitoring at several sites to ensure compliance with the agreed mitigation measures.

Scotland TranServ held environmental awareness sessions and carried out a series of internal environmental audits at a number of depots across the Unit.

Salt storage at Killin depot continued to be an issue and SEPA's advice was sought.

SW - Amey ★★★★★☆

Amey maintained the good performance level of 2009/10. It completed environmental reviews in a number of areas and carried out internal EMS audits at depots.

Sites and depots audited by PAGplus were well operated and improvements were noted in managing environmental issues. A number of findings were raised regarding waste and material storage.

5.2 Information systems

Routine maintenance and management system

The RMMS supplied by Transport Scotland continued to operate well throughout the year. Through the RMMS user group meetings, Transport Scotland continued to develop the system. It delivered training to all parties to support continued improvement and wider use of the system. Further details are given in section 2.3.1.

Structures management system

For details of the SMS refer to section 2.3.2.

Quality of service



Contract control and management system

The OCs continued to provide and operate fully functional CCMS during 2010/11.

User group meetings were held when required to discuss and resolve any specific issues identified with any of the OCs' CCMS.

NE and SE - BEAR ★★★★★

Performance continued to be good. The CCMS operated as required during 2010/11. There were some minor issues with the calculation of Contract Price Fluctuation (CPF), however, this was rectified at the end of the financial year.

NW - Scotland TranServ ★★★★★

Performance dipped from last year to fair. The CCMS operated as required in the

year with minor issues raised, such as calculation of monthly CPF.

Scotland TranServ upgraded its CCMS in 2009/10. A validation report was requested to confirm system controls were not affected by the upgrade. At 31 March 2011, the report had not been received and an NNC was subsequently issued.

PAGplus will monitor the OC's performance closely in 2011/12.

SW - Amey ★★★★★

Performance continued to be good. Amey addressed some of the CCMS issues identified regarding system performance. Otherwise, the CCMS performed well during the remainder of 2010/11.

Resolving problems and improving performance

Management systems are required to continually improve the effectiveness and efficiency of an organisation. This is achieved by identifying areas for improvement to the organisation's processes.

The OCs are, therefore, required to regularly monitor and verify their activities through testing, inspecting and auditing. They should then action where necessary to prevent recurrence where deficiencies are uncovered.

5.3 Continuous improvement

PAGplus monitors the OCs' systems and uses an escalation process to ensure issues are resolved (see figure 50).

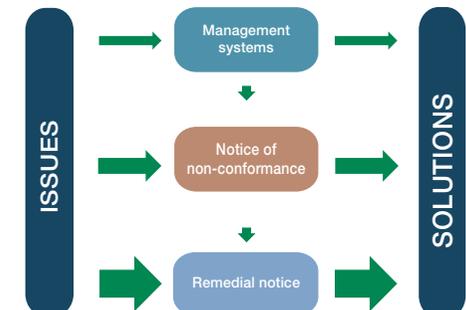


Figure 50 - Escalation process

Where an issue is escalated to either NNC or remedial notice, the OC is required to manage the default in accordance with its QMS within the specified timescale.

The OCs, in most cases, respond positively to these notices and rectify the immediate problems and improve their overall effectiveness.

Quality of service



OC performance

Remedial notice and NNC activity since 31 March 2011, which relates to 2010/11 performance, has not been taken into account in this section. These have been considered in the appropriate sections elsewhere in this report. NNCs issued since 31 March 2011 relating to 2010/11 performance are: NE two, SE three, NW one and SW one.

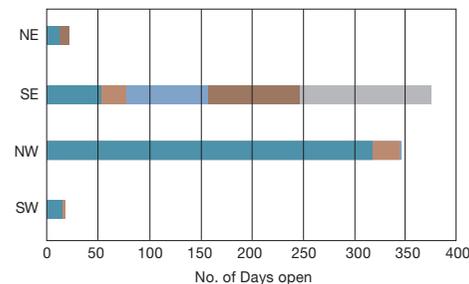


Figure 51 - Number of days NNCs were open during 2010/11

NE - BEAR ★★★★★

In 2010/11, two NNCs were issued. BEAR's response was again excellent, with both NNCs being closed out promptly. No NNCs were carried over from 2009/10 (see figure 51).

As in 2009/10, no remedial notices were issued during 2010/11.

SE - BEAR ★★☆☆☆

In 2010/11, five NNCs were issued, the same as in 2009/10. Overall, BEAR's response was again fair. The closing out periods ranged from one week to four months. The two NNCs carried over from 2009/10 were both closed out in April 2010 (see figure 51).

No remedial notices were issued in 2010/11, the same as in the previous year.

PAGplus will closely monitor the OCs performance during 2011/12.

NW - Scotland TranServ ★★☆☆☆

Overall, Scotland TranServ's performance has improved to fair. In 2010/11, two NNCs were issued compared to five in the previous year.

Scotland TranServ's response to these two NNCs was good, with a noticeable improvement from the previous year.

The one NNC carried over from 2009/10 was closed out in October 2010, having been open since December 2009 (see figure 51). This extended period before closure impacted on the overall performance rating.

As in 2009/10, no remedial notices were issued.

PAGplus will closely monitor the OC's performance during 2011/12.

SW - Amey ★★★★★

Overall, Amey's response was excellent (see figure 51). In 2010/11, two NNCs were issued compared to one the previous year. One NNC was closed out promptly whilst the other was only issued in late March 2011. PAGplus will assess the OC's response to this NNC during 2011/12. No NNCs were carried over from 2009/10.

No remedial notices were issued in 2010/11, the same as in 2009/10.

Quality of service



KPIs

The OCs' performance of the management and maintenance of the network is measured by a set of KPIs.

The 36 KPIs agreed with the Scottish Ministers apply across all four Units and are now calculated using standard methods of measurement developed by PAGplus. The KPIs are reported at varying intervals of monthly, quarterly, six monthly and annually.

Key performance indicators

The contract contains descriptions for the KPIs. These are summarised below and cross referenced within this report where appropriate.

KPI No	KPI Name	Section	KPI No	KPI Name	Section
1	Repair of category 1 defects	3.2.1	19	Site operations cost estimates	N/A
2	Safety inspections	2.2.1	20	Operations instructions	N/A
3	Detailed inspections	2.2.2	21	Frequency of materials testing	N/A
4	Lamp outages	3.1	22	Materials testing	N/A
5	Winter response times	3.2.3	23	Observations resulting from inspections (ORIs)	N/A
6	Winter treatment times	3.2.3	24	Forecasting against actual spend profile	N/A
7	Electronic data logger downloads	3.2.3	25	Invoice submissions	N/A
8	Emergency response times	3.2.2	26	Disputed items in invoice	N/A
9	Road occupation	2.1.2	27	Time take to process planning applications	N/A
10	Traffic disruption by unprogrammed operations and works	N/A	28	Submission of reports, programmes and minutes	N/A
11	Quality of traffic management	N/A	29	Answering of correspondence enquiries and complaints	N/A
12a	Achievement of inspection programmes (PIs)	2.2.3	30	Draft responses and briefing to TS on general Ministerial correspondence	N/A
12b	Achievement of inspection programmes (GIs)	2.2.3	31	Calls to customer contact system number	N/A
13	Internal audits of QMS	5.1	32	Remedial notices issued	5.3
14	PAG QMS	5.1	33	Staff turnover	5.3
15	Achievement of annual programmes	N/A	34	Sickness absence	N/A
16	Variation of budgets against agreed budget	N/A	35	Working hours	N/A
17	Works contracts cost estimates	N/A	36	Training	N/A
18	Works contracts outturn costs	N/A			

Quality of service



Summary of OC KPI performance

PAGplus monitors all KPIs and works with the OCs to address any poor performance.

20 of the 36 KPIs are monitored throughout the year in order to benchmark OC performance.

Transport Scotland and PAGplus set thresholds for the KPIs. These are reviewed annually to help drive continuous improvement.

Figures 52 to 55 summarise OC performance against each benchmark KPI. Inset to these are the same KPI results for 2009/10 (see figures 56 to 59).

KPI - Continual Improvement

In comparison to 2009/10, there was an improvement by all OCs. The severe winter weather impacted on OC performance for certain KPIs. In particular, as can be seen in figures 52 to 59, the repair of Category 1 defects (KPI 1), winter response times (KPI 5) and electronic data logger downloads (KPI 7), were impacted.

NE - BEAR

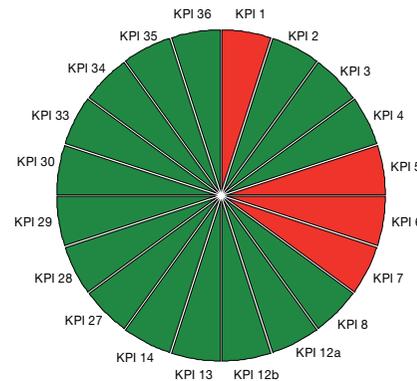


Figure 52 - KPI summary for NE

SE - BEAR

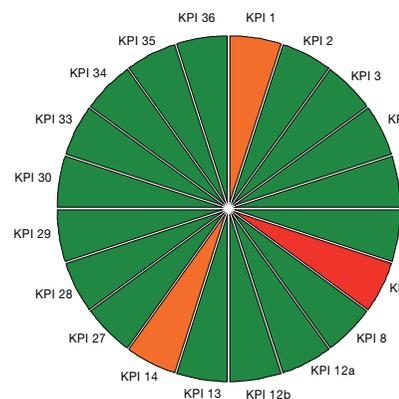


Figure 53 - KPI summary for SE

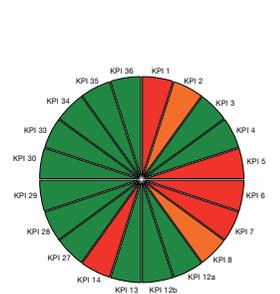
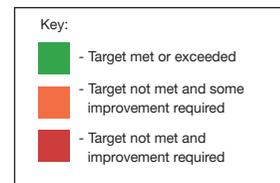


Figure 56 - KPI summary for NE



NW - Scotland TransServ

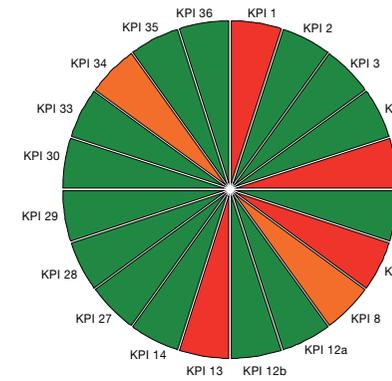


Figure 54 - KPI summary for NW

SW - Amey

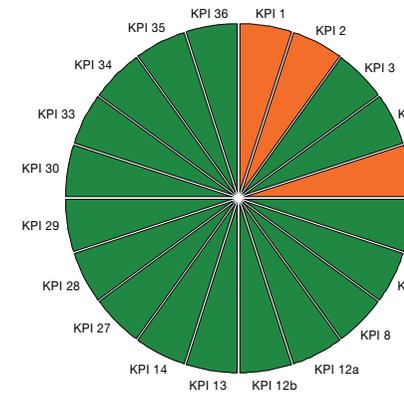


Figure 55- KPI summary for SW

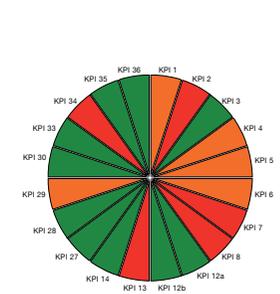


Figure 58 - KPI summary for NW

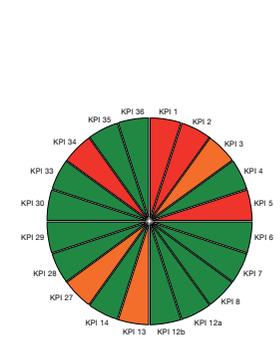


Figure 59 - KPI summary for SW



Connel Bridge on A828 in NW

Chapter 6

Value of service

Key points

Overall position

- The budget allocation from Transport Scotland of £131.2m was a decrease of £14.8m (10.1%) on 2009/10.
- £19.6m of efficiency savings were delivered by the OCs across the network in 2010/11, with cumulative savings of £82m over the life of the 3G contracts.

Budget, orders and spend

- OC spend was in line with budget for all Units.
- The OCs all operated effective management processes, with only minor issues identified during the year.
- Performance in profiling spend improved and was good for all OCs. Spend profiling was the subject of PAGplus audit and monitoring following issues identified in 2009/10.
- The OCs' performance in managing the bid/order process was good apart from NE, which was fair.

Claims and commercial issues

- Whilst good progress was made during 2010/11 in resolving commercial issues, some have taken longer to resolve than expected.

Value of service



6.1 Financial spend

Overall position - all Units

A comparison of spend figures for 2010/11 and 2009/10 is shown in figure 60 opposite.

A profile of each individual Unit's financial performance is given in figure 62.

Budgets for 2010/11 were down £14.8m from 2009/10. This level of budget is below the average level over the preceding five years of the 3G contracts (see figure 61). Inflationary pressures have impact on budget levels by reducing the funds available for maintenance.

Scotland, again experienced a severe winter. The overall budget was increased by £4.0m, to help address the impact of winter weather on the condition of the trunk road network.

The 3G contracts have delivered £19.6m of efficiency savings during 2010/11 when compared to the 2G contracts. This figure is an increase on the £16.0m reported in 2009/10 and is attributable to the change in mix of work carried out from the previous year. Cumulative savings of £82m

	2010/11 £m	2009/10 £m	% +/-
Budget Allocation	131.2	146.0	-10.1
Budget Spent (excl. CPF)	132.0	146.9	-10.1
Total Value of Work Done (incl. CPF)	148.8	161.9	-8.1
Split:			
- Operations	120.9	129.5	-6.6
- Works Contracts	27.9	32.4	-13.9

Figure 60 - Financial comparison - all Units

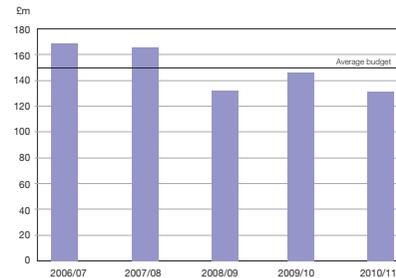


Figure 61 - Comparison of budgets for maintenance and improvement

have been delivered to date over the life of the 3G contracts.

Transport Scotland held meetings with all OCs to identify where potential savings could be generated from the 3G contracts in future years. All maintenance activities

including cyclic maintenance, winter service and defect repairs were reviewed. A number of potential savings were identified and these are being considered for implementation in 2011/12.

Contract price fluctuations (CPF) equated to £16.8m for 2010/11. This in effect reduced the £120.9m for operations down to £103.5m. The CPF figure for 2009/10 was £15.0m based on an operations figure for 2010/11 of £129.5m. CPF increased by an average of 4.0%, with rising oil prices being a significant factor.

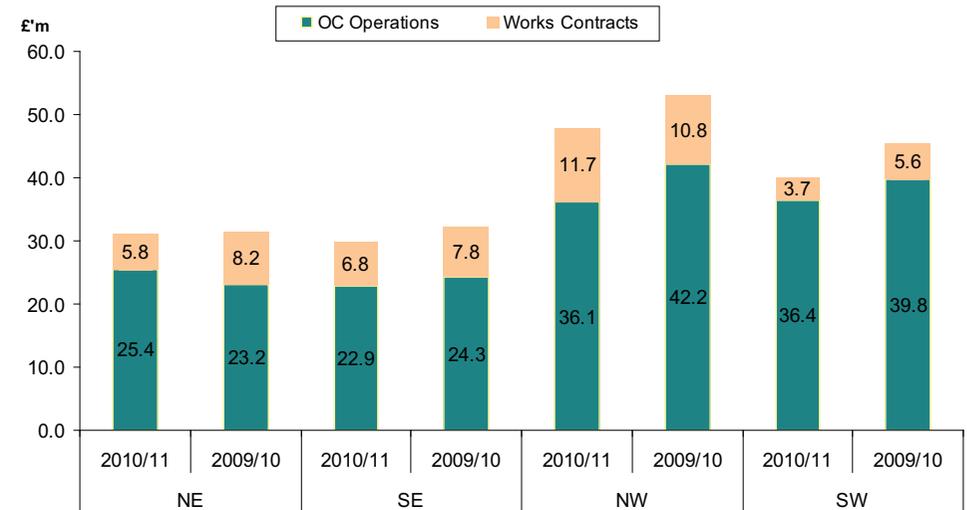


Figure 62 - Spend split by works and operations (including CPF) - all Units

Value of service



6.2 Budget, orders and spend

PAGplus monitors and reports on the inter-relationship of budget, orders and spend to assist Transport Scotland in its financial management. How this fits into the overall process is shown in figure 63.

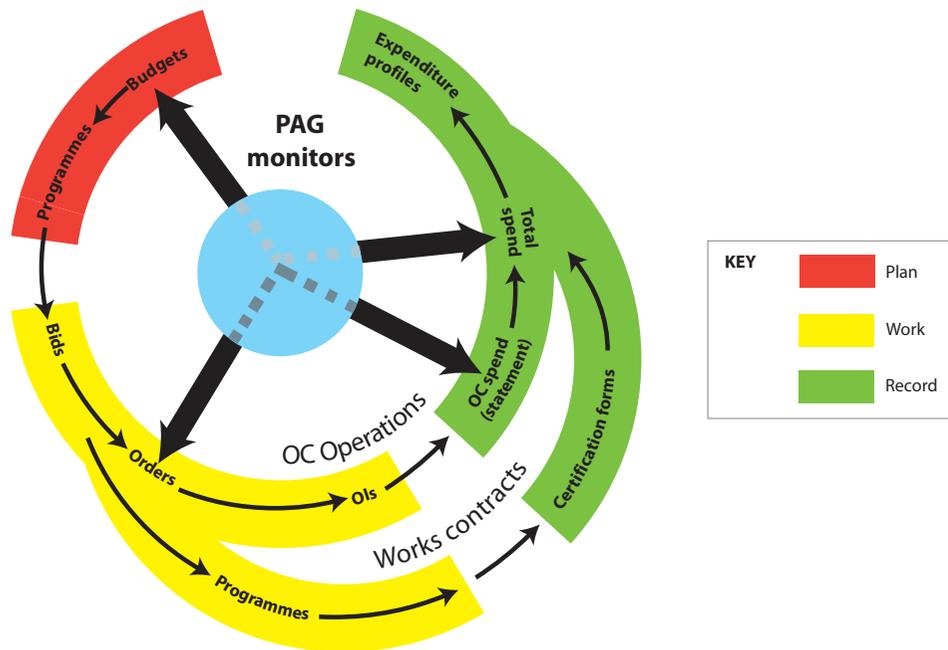


Figure 63 - Financial monitoring process

A comparison of spend against budget for the years 2010/11 and 2009/10 is shown in figure 64.

	2010/11 £m	2009/10 £m
Spend	132.0	146.9
Budgets	131.2	146.0
Variance	0.8	0.9
+/- %	+0.7%	+1.0 %

Figure 64 - Spend v Budget (excluding CPF)

Budgetary control

Budgetary control by the OCs is an important management responsibility. The robustness of their control process was tested during the recent severe winter conditions. A number of schemes were affected by winter and the impact on the budget had to be closely managed by Transport Scotland and the OCs. All parties showed a high degree of flexibility in re-scheduling operations and works contracts to produce financial outturns close to their budget.

NE - BEAR ★★★★★☆

Overall, performance continued to be good. Overall, spend in NE exceeded budget by £452k (2%). The most significant variations in budget were in

routine and cyclic maintenance which exceeded budget by £784k (6%) and roads structural maintenance was £264k (2%) less than budget. An audit on the expenditure profile process highlighted issues with training of staff. These issues were addressed by BEAR.

SE - BEAR ★★★★★☆

Performance improved on last year to good, with spend less than budget by £290k (1%). Within budget headings routine and cyclic maintenance exceeded budget by £352k (3%), whilst minor improvements and structures were underspent by £306k (28%) and £173k (7%) respectively. As in NE, an audit on the expenditure profile process highlighted issues with training of staff. These were addressed by BEAR.

NW - Scotland TranServ ★★★★★☆

Overall performance improved from last year to good. Scotland TranServ, which had the largest budget at £41.0m, overspent by £1.2m (3%). The overspend was mainly attributable to routine maintenance and structures budgets at £603k (4%) and £318k (4%) respectively. An audit confirmed Scotland TranServ had robust processes to provide accurate expenditure profiles.

Value of service



SW - Amey ★★★★★

Performance improved on last year and was good. Spend in SW was less than budget by £526k (2%). Structures and roads structural maintenance spend were £342k (5%) and £173k (2%) less than budget respectively. Whilst minor improvements spend was £104k (9%) more than budget. An audit confirmed that Amey operated robust processes to provide accurate expenditure profiles.

Financial control in delivering operations

Figure 65 below shows the bidding for work process:

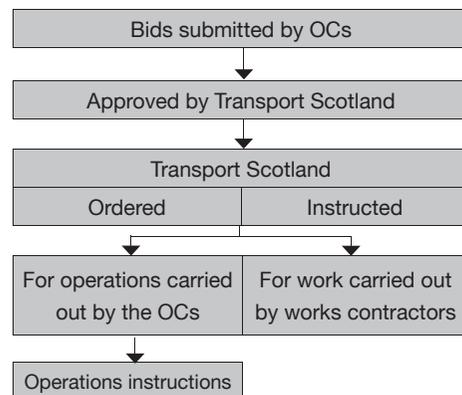


Figure 65 - The bidding for work process

PAGplus continued to audit and monitor the OCs' measurement processes. Issues raised were discussed and resolved through regular meetings. Where appropriate, monies were deducted from the OCs for failure to substantiate values claimed.

NE - BEAR ★★★★★

The measurement process in NE continued to be good, although there were some minor issues raised by PAGplus during the year.

SE - BEAR ★★★★★

Performance dropped from good to fair from the previous year. PAGplus monitoring activities highlighted issues with both measurement and records. PAGplus will continue to monitor this activity closely in 2011/12.

NW - Scotland TranServ ★★★★★

Scotland TranServ continued to operate a good measurement process, with only minor issues being raised through PAGplus' auditing and monitoring activities.

SW - Amey ★★★★★

Overall, Amey continued to operate a good measurement process, with PAGplus' auditing and monitoring activities highlighting only minor issues.

Orders v Spend

The responsibility to ensure that the value of orders issued by Transport Scotland matches their annual budgets and subsequent spend rests with the OCs.

Pressures on this process can result from operational demands changing and work already bid and ordered not proceeding. These changes may have a significant impact on the financial outturn if not managed through the contractual requirements for submitting revised bids. This process should ensure ordered work does not exceed budget.

PAGplus monitored the OCs' financial management performance throughout the year to ensure spend for each scheme did not exceed order value. PAGplus also reported on the relationship between budget, order value and spend for operations.

NE - BEAR ★★★★★

BEAR's performance in managing order versus spend dipped to fair from the previous year. Performance deteriorated towards the end of the financial year. Operations spend was 3% above budget. Performance in 2010/11 was down compared with that of 2009/10.

PAGplus will continue to monitor this activity closely in 2011/12.

SE - BEAR ★★★★★

Overall, performance was good and has improved on 2009/10. However, there was a decline noted towards the end of the financial year. Operations spend remained in line with budget.

NW - Scotland TranServ ★★★★★

Scotland TranServ's performance was good and improved on 2009/10. Operations spend remained in line with budget.

SW - Amey ★★★★★

Amey's performance during the year was again good being similar to that of the previous year. Operations spend was in line with budget.

Value of service



6.3 Claims and commercial issues

Commercial issues are reviewed as they arise by all parties. Regular meetings are held to resolve matters.

NE, SE and SW - BEAR and Amey ★★☆☆☆

There were no new claims submitted during 2010/11, although discussions are ongoing with NE, SE and SW to resolve claims submitted in previous years. Progress is being made, however, provision of some of the required supporting information was slow.

NW - Scotland TranServ ★★★★★

There were no new claims submitted during 2010/11. All claims from previous years were resolved.

Performance at a glance

PAGplus has used a star rating system to assist in benchmarking OC performance. These performance ratings have been applied throughout the Annual Report to reflect overall OC performance for the various activities reviewed. This performance at a glance table is a summary of these ratings using coloured background shading rather than stars to provide clarity to readers. In addition, the table shows a comparison between OC performance in 2010/11 and 2009/10 where relevant.

Key:

	Excellent
	Good
	Fair
	Poor
	Unacceptable

↑	Performance better than last year
=	Performance unchanged from last year
↓	Performance worse than last year
	Activity not reviewed in 2009/10

	NE	SE	NW	SW		NE	SE	NW	SW
Chapter 2 Network management					2.5 Sustainability	=	=	↑	=
2.1 Network reliability					Chapter 3 Network maintenance				
2.1.2 Availability of the network for road users	=	=	=	=	3.1 Cyclic maintenance				
2.1.3 Scottish road works register	↑	↑	↓	↑	Grass cutting	=	↓	=	=
2.1.4 Abnormal Roads	=	=	=	=	Weed control	↓	↓	↑	=
2.1.5 High Loads	=	=	=	=	Controlling vegetation	=	↑	↑	↓
2.2 Network inspections					Sweeping, cleansing and litter	↓	↑	=	=
2.2.1 Safety inspections and patrols	=	=	=	↓	Signing, signals, road markings and studs	=	=	↑	=
2.2.2 Detailed inspections - roads	↓	↑	=	↑	Lighting	=	↑	↑	=
2.2.3 Inspecting structures	=	=	↑	↑	Safety fences, barriers and fencing	=	=	↑	=
2.3 Inventory management					Drainage, gullies and ironwork	↓	↓	↓	=
2.3.1 RMMS	=	=	=	=	Structures	=	↑	=	=
2.3.3 Electrical assets	=	=	↑	=					
2.4 Programme management									
2.4.1 Submission of SOIs	=	=	=	↓					
2.4.2 Development control duties	=	↑	↑	↑					

Performance at a glance

	NE	SE	NW	SW		NE	SE	NW	SW
3.2 Reactive maintenance continued					4.2 Improving safety				
3.2.1 Repair of category 1 defects	↓	=	↓	↑	4.2.1 Strategic road safety schemes	=	=	=	=
3.2.3 Emergencies	=	=	↑	↓	4.2.2 Minor improvement schemes	=	=	=	=
3.2.3 Winter service					Chapter 5 Quality of service				
<i>Winter readiness</i>					5.1 Management systems				
<i>Winter decision making</i>					Quality management - maintaining compliance	=	=	↑	↑
KPI for winter service treatment times	=	↑	=	=	Quality management - rectifying non compliance (PAGplus)				
KPI for winter service response times	=	=	=	↑	Quality management - rectifying non compliance (Internal)				
KPI for electronic data logger downloads	=	↓	=	=	Health and Safety management	↓	↓	↓	=
Management of salt stocks	↑	↑	↑	↑	Environmental management	↑	↑	=	=
Road closures	=	=	=	=	5.2 Information systems				
3.3 Planned maintenance					Contract control and management system	=	=	↓	=
3.3.1 Roads	=	↓	↓	↓	5.3 Continuous improvement	=	=	↑	↑
<i>Patching of carriageways as a result of severe winter</i>					Chapter 6 Value of service				
3.3.2 Structures	↑	=	=	=	6.2 Budgets, orders and spend				
Chapter 4 Network improvement					Budgetary control	=	↑	↑	↑
4.1 Works contracts					Financial control in delivering operations	=	↓	=	=
Tender documents	=	=	=	=	Orders v Spend	↓	↑	↑	=
Public Contracts Scotland advertising portal					6.3 Claims and commercial issues	=	=	↑	=
Supervision	=	=	=	↓					



A96 in NE

Glossary of main terms

3G contracts

Third generation contracts which were tendered in two phases. NW and SW were tendered first. They have used these contracts since 1 April 2006. NE and SE started to use these contracts on 1 April 2007.

Abnormal load

An item which, when loaded on the carrying vehicle, exceeds critical weight or size parameters given in legislation and cannot be broken down into smaller components (also referred to as Abnormal Indivisible Load).

Budget

Money allocated by Transport Scotland to manage and maintain the network during a financial year. This includes operations and works contracts.

Category 1 defects

Serious road faults, such as potholes, that should be repaired within set timescales.

Contract control and management system (CCMS)

A computer-based financial management system supplied and operated by the OCs to a specification provided by Transport Scotland. The system gives everyone working on the contract, including

Transport Scotland and PAGplus, access to information about how operations and works contracts are being managed and where money is being spent.

Contract price fluctuation (CPF)

Inflation adjustments to the OCs' tendered rates and prices.

Financial year

The period between 1 April 2010 and 31 March 2011.

Key performance indicators (KPIs)

The contracts state that a list of indicators must be provided by the OCs to show how they are performing and to allow comparisons between Units.

Minor improvements

Schemes of importance to Scottish Government commitments and addressing network needs.

Network

The system of motorways and trunk roads in Scotland. The network is 3,171km long and varies from urban motorways to rural single carriageways (see figure 1). In addition, a total of 136 km of motorway is covered by the M6 DBFO, M77 PPP and M80 DBFO projects.

Notice of non-conformance (NNC)

The process used in the contract to flag up where the OCs are not complying with the contract. This is issued by PAGplus.

Operations

Work carried out by the OCs.

Orders

Instructions issued by Transport Scotland to the OCs. These give details of operations (not works contracts) to be carried out under the contract by the OCs. The OCs should not start operations until an order has been issued.

Quality management system (QMS)

Quality management is fundamental to the contract. A QMS is drawn up by each OC to show how it will carry out every function required of it under the contract.

Remedial notice

A procedure used under the contract where Transport Scotland can issue a notice when an OC is in default of its contractual obligations. This is part of the performance management procedures and may lead to withholding amounts from payment.

Glossary of main terms

Routine maintenance management system (RMMS)

A computer-based system supplied by Transport Scotland and operated by the OCs to record and report on details of the network, including where it has been inspected and routinely maintained. RMMS also links to the CCMS and is accessible by Transport Scotland and PAGplus.

Sector scheme

Sector scheme certification is given to suppliers and installers of materials by United Kingdom Accreditation Service (UKAS) accredited certification bodies. This certifies that the holder operates a QMS in line with the international standard, BS EN ISO 9001:2008 and the sector scheme document.

Spend

The amount paid for work done, including OC operations and works contracts, excluding CPF.

Structures

Structures include bridges, culverts, retaining walls, sign gantries, high mast lighting and CCTV poles.

Structures management system (SMS)

A computer-based management system containing an inventory of information on all trunk road structures.

Sustainability

Sustainability in trunk road maintenance and improvement allows for an enhanced network consistent with social needs, permitting environmental stewardship, improving safety, promoting efficiency and meeting the mobility requirements of current and future generations.

Traffic Scotland

Traffic Scotland manages Scotland's intelligent transport system, which provides a continuous service to the public. Its key functional areas are monitoring, controlling and informing road users.

Unit

The network is divided into four separate geographic Units. These are: NE, SE, NW and SW.

Works contracts

Schemes usually with a value of between £250k and £5m, which the OCs design, procure through competitive tender and supervise on site.

Abbreviations

2G	Second generation	HSE	Health and safety executive	RIDDOR	Reporting of injuries, diseases and dangerous occurrences regulations
3G	Third generation	IER	Initial environmental review		
BS	British Standard	ISO	International Standards Organisation	RMMS	Routine maintenance management system
CCMS	Contract control and management system	KPI	Key performance indicators	SE	South East
CEEQUAL	Civil engineering environmental quality assessment and award scheme	NE	North East	SEPA	Scottish Environment Protection Agency
		NNC	Notice of non-conformance	SMS	Structures management system
CMS	Carbon management system	NW	North West		
CPF	Contract price fluctuation	OC	Operating company	SNH	Scottish National Heritage
CQMSM	Contract quality management systems manager	OHSAS	Occupational health and safety assessment series	SOI	Statement of Intent
		ORI	Observation resulting from inspection	SRWR	Scottish road works register
DBFO	Design, build, finance and operate contract	PAGplus	Performance audit group	SW	South West
		PCS	Public Contracts Scotland advertising portal	TRISS	Trunk road incident support service
EMS	Environmental management system	PQQ	Pre-qualification questionnaire	TRL	Transport Research Laboratory
EN	European standard of the GEN	QMS	Quality management system	VMS	Variable message sign
H&S	Health and safety				

Useful websites

PAGplus
www.performanceauditgroup.co.uk

Halcrow
www.halcrow.com

PricewaterhouseCoopers
www.pwc.co.uk

URS Scott Wilson
www.urs-scottwilson.com

Scottish Road Works Commissioner
www.roadworksscotland.gov.uk

Tony Ham Insurance Brokers
www.thibl.co.uk

TRL
www.trl.co.uk

Transport Scotland
www.transportscotland.gov.uk

Traffic Scotland
www.trafficscotland.org

Scottish Government
www.scotland.gov.uk

Scottish Parliament
www.scottish.parliament.uk

Amey
www.swtrunkroads.amey.co.uk

BEAR
www.bearscot.com

Scotland TranServ
www.scotlandtranserv.co.uk



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