The Performance Audit Group's Annual Report 2012/13

An independent public report on Scotland's trunk road maintenance

PAGplus

TRANSPORT SCOTLAND

Halcrow
A CH2M HILL COMPANY

in association with
PricewaterhouseCoopers, URS and TRL

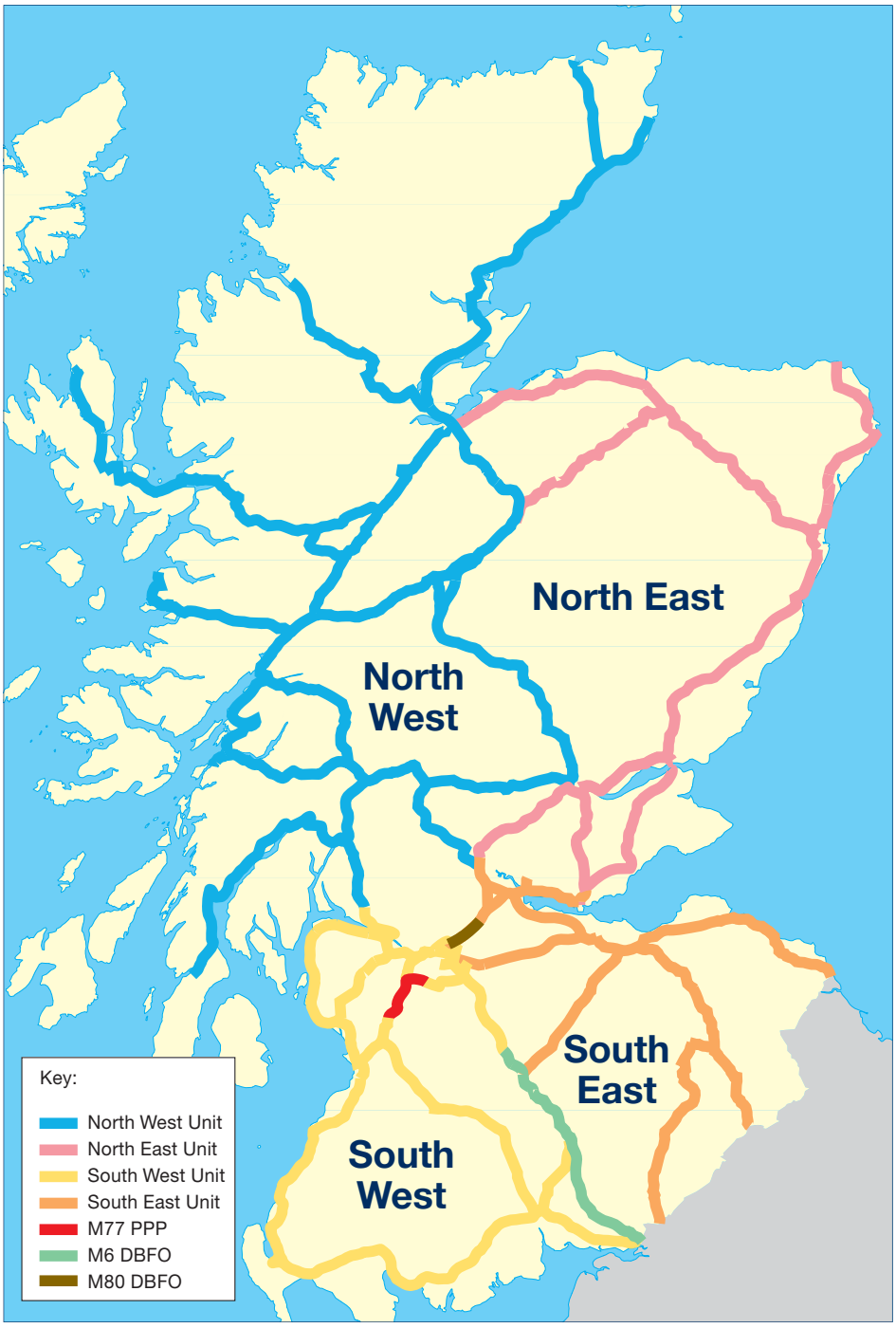

Figure 1 The Scottish trunk road network (2012/13) and how it is divided up for contract purposes (see figures 3-6 for details of the Units)

Foreword

Welcome to the Performance Audit Group's (PAGplus) annual report on Scotland's trunk road maintenance for 2012/13.

This is PAGplus' fourth annual report and summarises the extensive work carried out over the last year by our experienced multi-disciplinary team, led by Halcrow, a CH2M HILL Company, in association with PricewaterhouseCoopers. Our team works closely with Transport Scotland and the Operating Companies, auditing, monitoring and reporting on trunk road maintenance performance. In addition to carrying out our mainstream role our team has also assisted Transport Scotland in the tendering exercise for the fourth generation of trunk road contracts for the North West and South West Units.

The overall aim of all parties is to raise standards and assist Transport Scotland in providing a safe and reliable network through delivering:

"…routine, cyclic and winter maintenance to maintain the safety, environment and amenity of Scotland's trunk roads."
Transport Scotland's Corporate Plan 2012 - 2015.

Our team's approach to the commission is one of working closely with Transport Scotland and the Operating Companies to provide:

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

and collectively deliver sustainable value to all stakeholders.

This reporting year has seen the Operating Companies continue to perform well in their overall service delivery. This was achieved with an increased budget although it was less than the seven year average, as a result of ongoing public spending pressures. Notwithstanding this, the third generation trunk road maintenance contracts continued to deliver ongoing efficiency savings.

Our team is proud of its continuing contribution to the successful management and maintenance of Scotland's trunk roads, working with Transport Scotland and the Operating Companies.

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

Bruce Lunn,
Commission Manager
PAGplus
Halcrow Group a CH2M HILL Company
September 2013

PAGplus team 2012/13

Executive summary

Overall, the Operating Companies (OC) generally carried out maintenance to a good standard, although there was a dip in performance in North East (NE) and South East (SE).

There is an ongoing commitment by Transport Scotland to invest in managing and maintaining the trunk road network. The budget allocation for 2012/13 of £111m, was an increase of £21m (24%) on the previous year, but is lower than the seven year average.

The 3G contracts have delivered £20m of efficiency savings for 2012/13, with cumulative savings of £120m over the life of these contracts when compared to the previous 2G contracts.

The OCs continued to demonstrate a highly responsible attitude towards health and safety, although there was an increase in the number of reportable accidents compared to the previous year. The management systems continued to be operated successfully by all OCs.

All OCs completed their programmes of safety inspections and patrols. NE and South West (SW) maintained their performance levels in carrying out detailed inspections, with performance in SE and North West (NW) dipping slightly. The programmes of structures inspections and reporting were successfully completed by all OCs.

An excellent performance was recorded for all OCs in reducing delays and minimising the impact of roadworks, with over 99.3% of the network being available to road users throughout the year despite an increase in the number of roadwork sites compared to 2011/12.

NE and SE continued to perform well in repairing Category 1 defects on time, whereas NW and SW performed less well. Planned maintenance was generally performed well by the OCs for both roads and structures. However, all OCs should have performed better in undertaking cyclic maintenance activities.

The winter season of 2012/13 was marked by the coldest March in over 30 years, with heavy snowfall in late March resulting in a small number of winter related closures, two in SW and one in NW. All OCs continued to perform well in preparing for and delivering the winter service requirements. There was good cooperation between the OCs and with local authorities, including sharing of vehicles and services to clear deep snowdrifts.

All OCs responded well to emergencies on the network, including dealing with the severe winter conditions in NW and SW at the end of March, minimising the disruption to road users.

No remedial notices (RNs) were issued in 2012/13. There was a significant increase in the number of Notices of Non Conformance (NNC), primarily for cyclic maintenance activities. PAG will be monitoring these activities in 2013/14, particularly as this will be the final year of the NE and SE contracts.

Frequently asked questions

What is the Performance Audit Group (PAGplus)?

Halcrow, a CH2M HILL Company, working in association with PricewaterhouseCoopers, URS 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' role in PAGplus is primarily to monitor the M6 DBFO project.

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. PAGplus can escalate the auditing and monitoring of the OCs if performance issues are identified.

PAGplus is also assisting Transport Scotland in the development and tendering of the fourth generation (4G) 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 capital investment programme and 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 2012/13, the OCs for each Unit were: BEAR for NE and SE, Scotland TranServ for NW and Amey for SW.

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.

Frequently asked questions

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?

There are certain maintenance and information management services carried out on the network that are not the OCs' responsibility.

- Maintenance of M74/A74(M) from junction 12 to the Scottish border is the responsibility of Autolink under the terms of the M6 DBFO project.
- Maintenance of M77 PPP project is the responsibility of Connect.
- Maintenance of M80 DBFO project 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, contract:
Public Liaison Office
Highways Management (Scotland) Ltd
c/o BEAR Scotland
Chryston Depot
Auchengeigh Road
Chryston
Glasgow
G69 0JL.

Contents

Contents

Chapter 1
Overview

1.1 Background

The Scottish trunk road network

The network is divided into four geographic Units (NE, SE, NW and SW) and three DBFO/PPP projects, each with its own contract (see figure 1).

Each of the four Units (see figures 3 to 6) is managed and maintained by an OC. Figure 2 outlines the structure of these arrangements.

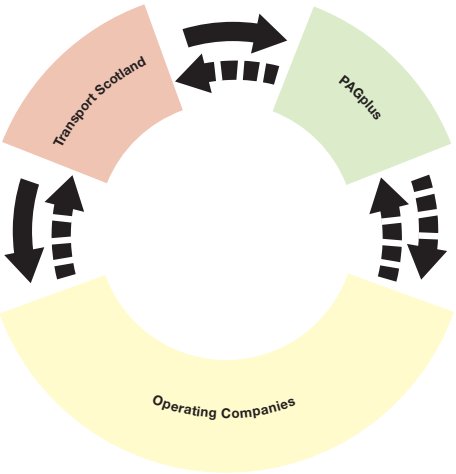

Figure 2 - Structure of arrangements between Transport Scotland, PAGplus and the OCs

The network is 3,218km long, excluding M6 DBFO, M77 PPP and M80 DBFO. It contains a total of 5,860 structures, including 1,935 bridges and footbridges.

The OC contracts

BEAR Scotland Ltd, an independent company jointly owned by Jacobs Engineering, Breedon Aggregates and Eurovia, has managed and maintained both NE and SE since 1 April 2007. These contracts will be in place until 31 March 2014.

Since 1 April 2006, Scotland TranServ (a joint venture between Balfour Beatty and Mouchel) and Amey have been the OCs for NW and SW respectively. As these contracts ended on 31 March 2013, and Scotland TranServ and Amey no longer have responsibility for the Units, these OCs have no opportunity to improve their performance in 2013/14.

The contracts for NW and SW were re-tendered in 2012 and as from April 1 2013 BEAR Scotland Ltd and Scotland TranServ have responsibility of managing and maintaining the NW and SW respectively.

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 uses 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 of this report.

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: 613km
Number of structures: 639
Budget for maintaining trunk roads in NE this period: £21.9m

South East fact file

Figure 4 - SE Unit

Managed and maintained by: BEAR Scotland Ltd.

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

Total route length of the network in SE: 551km
Number of structures: 855
Budget for maintaining trunk roads in SE this period: £21.2m

North West fact file

Figure 5 - NW Unit

Managed and maintained by: Scotland TranServ

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

Total route length of the network in NW: 1,331km
Number of structures: 2,376
Budget for maintaining trunk roads in NW this period: £35.3m

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:723 km
Number of structures: 1,990
Budget for maintaining trunk roads in SW this period: £32.9m

Chapter 2
Management of service

Key points

Network reliability
- The OCs' performance in minimising the delays and disruption to road users was excellent.
- Overall 99.3% of the network was available to road users in 2012/13 despite an increase in the number of roadworks sites from the previous year.
- All OCs continued to provide a good service in coordinating and routing abnormal and high loads.

Network inspections
- The performance of all OCs in carrying out their safety inspections was excellent.
- Excellent performance in NE and good performance in SW continued from the previous year, whereas performance dipped in SE and NW to good and fair respectively in carrying out detailed inspections.
- All OCs successfully completed their structures inspections to programme.

Inventory management
- A good performance was again delivered by Amey in managing inventory within the routine maintenance management system (RMMS). There was room for improvement by the other OCs.
- NE and NW delivered good performance in the inspection, maintenance and certification of electrical assets. SE and SW performance was fair.

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

Sustainability
- Although not required contractually, both the NW and SW continued to implement sustainable practices into their operations, working with Transport Scotland, PAGplus and Zero Waste Scotland. The performance of NE and SE requires improvement.

Customer Contact Services
- BEAR (NE and SE) and Amey delivered excellent performance in the delivery of Customer Contact Services. Scotland TranServ's performance was found to be fair as procedures were not always followed.

Chapter 2
Management of service

2.1 Network reliability

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.

2.1.1 Coordinating roadworks

In 2012/13, there were 17,540 roadworks sites across the network, an average of 48 per day, an increase from 42 per day in 2011/12. This was due to increased activity in all four Units. Figure 7 shows the number of roadworks sites in each Unit during the year.

Unit	Number of roadworks sites
NE	5,026
SE	5,115
NW	3,198
SW	4,201

Figure 7 - Number of roadworks sites in 2012/13 (source SRWR)

The OCs used a variety of measures to reduce disruption 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 SRWR, media campaigns and variable message signs
- Increased stakeholder consultation
- Communication on road closures
- Road closures with agreed diversion routes.

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).

This is based on the length of a lane closure and the amount of time that lanes are occupied. These road occupation values are 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 99.3% similar to previous years.

Unit	KPI value	% Available
NE	116,207	99.3
SE	202,969	98.5
NW	81,724	99.7
SW	79,340	99.5
Total	480,240	99.3

Figure 8 - KPI reporting road occupations measured in lane kilometre hours and percentage of network available to road users

2.1.3 Abnormal loads – all Units ★★★★☆

Abnormal load movement is one of the network management tasks which is delegated to the OCs. Each OC provides an abnormal load routing and coordination service within its Unit and liaises with hauliers and other statutory bodies.

One of the key aspects of the service is assessing the suitability of bridges and other structures on the network to carry heavy loads as well as the suitability of routes to carry wide or long loads.

In 2012/13, the OCs dealt with a significant increase in the number of abnormal load applications, with 508 approved (2011/12 400 applications approved.)

2.1.4 High loads – all Units ★★★★☆

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

All OCs continued to provide a good service when 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.

Since Transport Scotland introduced its over-height vehicle strategy, the number of bridge strike incidents across the network remains low.

2.2 Network inspections

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 assets, detailed inspections are carried out, typically annually, to identify minor defects. These defects are grouped into schemes, which are prioritised based on need.

2.2.1 Safety inspections and patrols

All OCs performance in completing safety inspections on time was excellent as shown in figure 9.

Unit	2012/13	2011/12	2010/11
NE	100.0%	99.9%	99%
SE	99.4%	99.1%	99.8%
NW	99.4%	99.6%	100%
SW	98.7%	98.3%	96.5%

Figure 9 - KPI for Safety inspections and patrols

NE - BEAR ★★★★★
BEAR completed 100% of safety inspections on time, continuing to deliver an excellent performance.

SE - BEAR ★★★★★
Continued excellent performance from BEAR was achieved, completing 99.4% of safety inspection on time.

NW - Scotland TranServ ★★★★★
Scotland TranServ achieved 99.4% of safety inspections on time. This continued the OC's excellent performance.

SW - Amey ★★★★★
Amey achieved an excellent and improved performance with 98.7% of safety inspections completed on time.

2.2.2 Detailed inspections - roads

Performance by the OCs in completing detailed inspections in 2012/13 is shown in figure 10.

Unit	2012/13	2011/12	2010/11
NE	98.1%	99%	90%
SE	94.4%	99%	91%
NW	87.4%	100%	91%
SW	93.4%	94%	90%

Figure 10 - KPI for OC performance in completing detailed inspections

NE - BEAR ★★★★★
Performance by BEAR in completing detailed inspections on time remained excellent in 2012/13, despite a slight dip from the previous year.

SE - BEAR ★★★★☆
The OC's performance dipped to good with 94.4% of detailed inspections completed on time.

NW - Scotland TranServ ★★★☆☆
Overall, performance by Scotland TranServ was fair, dropping significantly from 2011/12.

As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW - Amey ★★★★☆
Amey maintained its good peformance with 93.4% of inspections completed on time. This was a slight dip from 2011/12.

2.2.3 Inspecting structures

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, 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.

All OCs have an obligation to inspect structures within their respective Units. The inspection year runs from February to November in each calendar year.

Two types of inspections are routinely undertaken:

- General Inspection (GI) – visual inspections carried out every two years.
- Principal Inspection (PI) – close inspection of every structural element carried out every six years.

Other inspections may be carried out on a needs basis. These may include superficial, scour or special inspections, usually following severe weather or a major incident.

Inspections enable the current condition and any defects to be noted and recorded in the Structures Management System (SMS). Based on the inspections, each OC develops a programme of proposals for essential maintenance work within the available budget.

In 2012/13, the OCs carried out a total of 633 PIs and 1,548 GIs.

A breakdown of the inspections completed by Unit, and the overall performance of each OC is shown in figure 11.

All OCs completed the majority of PIs and GIs to agreed timescales.

NE - BEAR ★★★★★
Performance by BEAR continued to be excellent, with 100% of the PI and GI programmes completed ahead of programme.

SE - BEAR ★★★★★
Overall performance by BEAR was excellent, although there was a drop in performance mid-term. As the year progressed BEAR ensured all inspections were completed within the contract timescale. Transport Scotland requested some minor changes to the presentation of data within SMS.

NW - Scotland TranServ ★★★★★
Overall performance by Scotland TranServ was excellent and improved, with 100% of the PI and 99.8% of the GI programme completed.

SW - Amey ★★★★★
Performance by Amey continued to be excellent with 100% of the PI and 99.9% of the GI programmes completed within the contract requirements.

	Principal Inspections		General inspections	
Unit	No of structures	Completed on time	No of structures	Completed on time
NE	56	100%	167	100%
SE	85	100%	226	100%
NW	246	100%	508	99.8%
SW	246	100%	647	99.9%
Total	633	100%	1548	99.9%

Figure 11 - OC performance in completing principal and general structural inspections

2.3 Inventory management

2.3.1 Routine maintenance and management system (RMMS)

The RMMS is a computer based system operated by the OCs, which contains the inventory of trunk road assets. The OCs, are responsible for recording all works carried out on the network, as well as updating and archiving the inventory as work is carried out on the Network. The accuracy of the inventory is important as data is used to assist and establish budgets and programmes.

NE - BEAR ★★★☆☆
The OC performance in updating the inventory continued to be fair. Although Transport Scotland requested particular updates to be made early in the year, these were only carried out following reminders issued to the OC. However, issues remained in completing missing attributes.

PAGplus will continue to monitor this activity closely during 2013/14.

SE - BEAR ★★★☆☆
Performance by the OC during 2012/13 was fair. Missing attributes and other updates were not carried out until the last quarter of the year.

PAGplus will continue to monitor this activity closely during 2013/14.

NW - Scotland TranServ ★★★☆☆
Performance improved in updating section attributes throughout the year and the OC made adjustments to the landscape action plan as requested by Transport Scotland. Although few updates were evident in the last quarter, resulting in an overall fair performance.

As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW - Amey ★★★★☆
Performance continued to be good for most of 2012/13, with the OC responding to requests from Transport Scotland to update section attributes. Performance with respect to updates to the landscape action plan dropped towards the end of the year.

2.3.2 Structures management system

During 2012/13, the OCs were responsible for managing 5,860 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 M90 Friarton Bridge and A9 Kessock Bridge.

Of these structures, 1,935 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 SMS, is shown in figure 12.

Unit	Bridges	Foot-bridges	Other structures
NE	294	15	330
SE	358	15	482
NW	582	62	1,732
SW	560	49	1,381
Total	1,794	141	3,925

Figure 12 - Number and type of structures in each Unit (source SMS)

All the OCs utilised the SMS throughout the year with no major issues.

2.3.3 Electrical assets

In 2012/13 PAGplus audited each OC on maintenance of street lighting and weather stations. All documentation for recording and reporting on electrical assets was also reviewed.

Findings were raised in each Unit for the OCs' preparation and monitoring of testing certificates. PAGplus will continue to monitor OCs on this issue.

NE - BEAR ★★★★☆
BEAR's performance improved to good. Four findings were raised, however, it was noted at the time of electrical audit that the majority of electrical equipment was of a good standard.

SE - BEAR ★★★☆☆
BEAR's performance continued to be fair. PAGplus identified non compliance with BS7671 regarding unavailable certificates of electrical equipment. Findings were resolved after audit.

PAGplus will continue to monitor this activity closely during 2013/14.

NW - Scotland TranServ ★★★★☆
Performance in electrical maintenance improved to good. The OC has carried out a considerable amount of work to improve assets and documentation in NW.

SW - Amey ★★★☆☆
PAGplus raised audit findings on various issues in the SW during the year. Overall performance remained fair, although the OC had made improvements across the Unit. Amey had a proactive approach to inspection and used local knowledge to its advantage.

As the OC is no longer responsible for the SW, it has no opportunity to improve performance in 2013/14.

2.4 Development control duties

All OCs provide planning advice to assist Transport Scotland with consultation responses to the various planning authorities. It is important the OCs provide advice quickly.

A KPI is used to measure the OCs' performance in responding within the required timescale of 5 working days (see figure 13).

Unit	2012/13	2011/12	2010/11
NE	99.0%	100%	99.5%
SE	100%	100%	100%
NW	100%	99.0%	99.4%
SW	100%	96.0%	99.4%

Figure 13 - KPI for OC performance on response to planning applications

NE - BEAR ★★★★★

BEAR continued to perform to an excellent standard in 2012/13.

SE - BEAR ★★★★★
The performance of BEAR continued to be excellent, again achieving a KPI of 100%.

NW - Scotland TranServ ★★★★★
Scotland TranServ maintained a consistently high KPI figure providing an excellent performance again this year.

SW - Amey ★★★★★
Amey's performance improved to excellent from 2011/12.

2.5 Sustainability

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

Transport Scotland, PAGplus and the OCs will continue working together to provide a more sustainable service and assist in achieving these ambitious goals.

A sustainability monitoring system developed by PAGplus and based on CEEQUAL parameters was continued throughout 2012/13, with a number of site visits undertaken to determine how the OCs have performed.

In addition, two sustainability Monitoring Indicators reporting on 'waste generation and management' and 'use of reused, recycled, renewable materials' have been monitored during 2012/13.

PAGplus delivered presentations on the sustainability monitoring system to the OCs. Transport Scotland has introduce formal sustainability monitoring into the 4G contracts.

NE and SE - BEAR ★★☆☆☆

Performance dropped to poor in both Units. Failings were noted in the delivery of sustainability scoping at design stage with the OCs not providing adequate mitigation advice for inclusion in construction information packs.

Site monitoring also highlighted where mitigation requirements had been identified these were not always followed.

PAGplus will work closely with the OCs to ensure performance improves in 2013/14.

NW - Scotland TranServ ★★★★★

Scotland TranServ continued to deliver excellent performance.

Sustainable aspects of schemes were managed well. Mitigation was evident in all sites with some examples of the OC going further to protect wildlife, enhancing the surroundings, liaising with stakeholders and protecting any historical environment close to schemes.

PAGplus visited A9(S) Milton of Leys resurfacing scheme where the Repave technique was used, (see figure 14).

Figure 14 - Repave at Milton of Leys on A9 in NW

This method reduced the use of raw material by 50%, and highlighted that the OC was active in seeking sustainable methods for resurfacing schemes.

SW - Amey ★★★★☆

Amey continued to deliver a good performance.
All schemes visited during 2012/13 had appropriate mitigation in place with Amey providing environmental surveys completed prior to work commencing.

PAGplus visited A76 Woodhead Bridge collapsed culvert scheme. It was noted that all mitigation was in place and the OC had taken the opportunity to improve the area for otters and badgers via the installation of an overflow pipe, which can work as an otter and badger run.

2.6 Customer contact services

Transport Scotland requested PAGplus audit the OCs' procedures for dealing with calls from customers. Each OC has developed individual bespoke methods to ensure compliance with contractual requirements.

NE and SE - BEAR ★★★★★

An excellent performance was provided by BEAR. The NE and SE shared control room in Perth was operated in an effective and efficient manner.

NW - Scotland TranServ ★★★☆☆

A fair performance was noted in the NW. Scotland TranServ's system for recording Customer Care has continually developed throughout the 3G Contract. It was evident from the PAGplus audit that the OC does not always complete the due processes as set out in its procedure or as required by the contract.

As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW - Amey ★★★★★

Amey has an Operational Control Room staffed by highly trained individuals who deal with calls efficiently and effectively, providing an excellent performance. Additionally, Amey has developed a feedback system where it has directly assisted the travelling public through TRISS. Feedback is requested from the public on the support they received to allow for review of the system.

Chapter 3
Delivery of service

Key points

Cyclic maintenance

- Overall there was room for improvement by all OCs, and in particular SE, in the level of performance for cyclic maintenance.
- Satisfactory performance from NW and SW in grass cutting and weed control, with improvement required by NE and SE.
- All OCs had room for improvement in dealing with signs and road markings with performance in SE unacceptable and SW continued to be poor.
- Cyclic emptying of catch pits and gullies was an issue in all Units. Filter drain harrowing could also improve, however, NW did perform well in the latter half of the year.
- Structures cyclic maintenance performance was good in NW and SW, with a fair performance noted in NE and SE.

Reactive maintenance

- Performance by NE and SE in repairing Category 1 defects was good. NW showed a predominantly poor performance throughout the year, whereas SW showed good performance at the start of the year but this deteriorated towards the end of the year.
- All OCs responded well to emergencies across the network.

Winter

- There were spells of mild weather during winter, but there were also notably cold spells, particularly in March which was at its coldest since 1962. Heavy snowfall in late March causing major disruption.
- The general performance of the OCs was good; cooperation between the OCs included sharing of vehicles and services. There was, however, a slight dip in winter service KPIs, particularly datalogger downloads where NNCs were issued to NE, SE and NW.
- Winter decision making and recording of decisions showed room for improvement in SE and NW.
- The Transport Scotland one-day pre-winter excercise identified good communication between all parties as the key message /outcome.

Planned maintenance

- All OCs delivered planned maintenance generally to a good standard for both roads and structures.

Works contracts

- All OCs continued to maintain a good standard of preparation of tender documents for works contracts.
- A good standard of supervision on works contracts was delivered by all OCs.

Improving safety

- All OCs continued to deliver safety schemes and minor improvements to a good standard.

Chapter 3
Delivery of service

3.1 Cyclic maintenance

Cyclic maintenance
The OCs are required to carry out cyclic maintenance activities on certain aspects of the network in order to keep it operational, safe and tidy. These include operations such as cleaning gullies and catchpits, cutting grass and cleaning road signs.

The OCs are required to update RMMS when they carry out these operations.

Spend on cyclic maintenance

Total spend on cyclic maintenance during 2012/13 was £4.43m (in 2011/12 it was £4.98m).

Grass cutting

NE - BEAR ★★★☆☆
Performance dipped to fair. Medium and high frequency areas were cut to a good standard, but delays were noted to low frequency areas where grass exceeded the maximum height. Strimming lagged behind the main cut throughout the Unit resulting in a non-uniform appearance from May to July.

PAGplus will monitor this activity closely during 2013/14.

SE - BEAR ★★☆☆☆
BEAR's performance dipped to poor. As in previous years, operations did not always follow the programme. An NNC was issued towards the end of the year for poor performance in grass cutting, particularly for grass out of specification (greater than 300mm) and delays to strimming following machine cutting.

PAGplus will work closely with the OC to ensure performance improves in 2013/14.

NW - Scotland TranServ ★★★☆☆
Scotland TranServ's performance continued to be fair. Grass was cut to a good standard in medium and high frequency areas. Delays occurred early in the season on low frequency areas, particularly in the north of the Unit, but this improved as the season progressed. Minimum frequency cuts were due but the OC failed to complete these on most routes.

As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW - Amey ★★★★☆
Amey's performance was again good. There were some areas where grass exceeded the maximum height and where strimming was out of step with verge swathe cutting.

Weed control

NE - BEAR ★★★☆☆
BEAR's performance continued to be fair with die-back following treatment noted during the early part of the season. However, regrowth on some central reservations was observed.

PAGplus will continue to monitor this activity closely during 2013/14.

SE - BEAR ★★★☆☆
BEAR's performance dipped to fair. Weed control was carried out at the required frequencies. However, the treatments were not totally effective and weed growth remained at sections of chipped centre reserves, carriageway edges and filter drains.

PAGplus will continue to monitor this activity closely during 2013/14.

NW - Scotland TranServ ★★★★☆
Scotland TranServ's performance was good having improved significantly from last year, although ineffective management of weed control at locations around Inverness and in the south of the Unit remained an issue.

SW - Amey ★★★☆☆
Overall performance by Amey was fair, having dipped from the previous year. The OC's ineffective treatment of ragwort was seen by PAGplus as a concern.

As the OC is no longer responsible for the SW, it has no opportunity to improve performance in 2013/14.

Controlling vegetation

NE - BEAR ★★★★☆
A good and improved performance was noted. BEAR carried out clearance of vegetation to improve sign visibility during the period.

SE - BEAR ★★★★☆
Good performance by BEAR continued during the period, including the clearance of storm blown trees.

NW - Scotland TranServ ★★★☆☆
Scotland TranServ provided fair performance throughout the period. An issue was noted with signs being obscured by foliage, which the OC was slow to react to (see figure 15).

As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW - Amey ★★★★☆
Amey's performance continued to be good, with few issues raised during the period.

Figure 15 - Obscured sign on A85 in NW

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

NE - BEAR ★★★★☆
Overall, performance improved to good in litter removal, although accumulations were observed, some of which took time to be cleared. Issues continued regarding poor road sweeping, despite BEAR notifying the local authorities where required.

SE - BEAR ★★★☆☆
BEAR's performance dipped to fair. Litter accumulations on motorway and dual carriageway routes were noted. An NNC was issued for poor performance in litter collection. This was subsequently closed following a revision to the litter picking programme with increased resources and improvement noted.

PAGplus will continue to monitor this activity closely during 2013/14.

NW - Scotland TranServ N/A
Scotland TranServ is not responsible for litter clearance within the Unit. Local authority channel sweeping in towns and villages was to a good standard but poor outwith these areas.

SW - Amey ★★★☆☆

Amey's performance remained fair. PAGplus continued to raise issues regarding litter accumulations, particularly along M8 locations. Amey reacted to these quickly, and an overall improvement was seen over the middle of the period but this deteriorated in the last part of the quarter.

As the OC is no longer responsible for the SW, it has no opportunity to improve performance in 2013/14.

Signing, signals, road markings and studs

NE - BEAR ★★★☆☆

BEAR's performance improved to fair from last year, but slow replacement of road linings and road studs following resurfacing and patching continued to be an issue.

PAGplus will continue to monitor this activity closely during 2013/14.

SE - BEAR ★☆☆☆☆

BEAR's performance was unacceptable over the year. An NNC was issued in May 2012 for poor maintenance covering verge reinstatement after sign remedial works, badly faded or missing road markings and damage to warning and advance direction signs. No improvement was seen in the performance over the period and the NNC remained open throughout 2012/13.

Transport Scotland and PAGplus will work closely with the OC to ensure improved performance is delivered in 2013/14.

NW - Scotland TranServ ★★★☆☆

Scotland TranServ's performance improved to fair. An NNC was issued in May 2012 after issues were noted on missing/damaged signs and the reinstatement of road markings and road studs following surfacing operations. This was subsequently closed with an improved performance noted.

SW - Amey ★★☆☆☆

Amey's performance continued to be poor. An NNC was issued in May 2012 for poor performance and closed following receipt of an acceptable action plan. However, performance continued to be poor with missing or damaged sign plates, signs requiring removal and signs obscured by foliage all continuing to require attention from the OC.

This was a disappointing performance by Amey in the last year of the 3G contract. As the OC is no longer responsible for the SW, it has no opportunity to improve performance in 2013/14.

Lighting

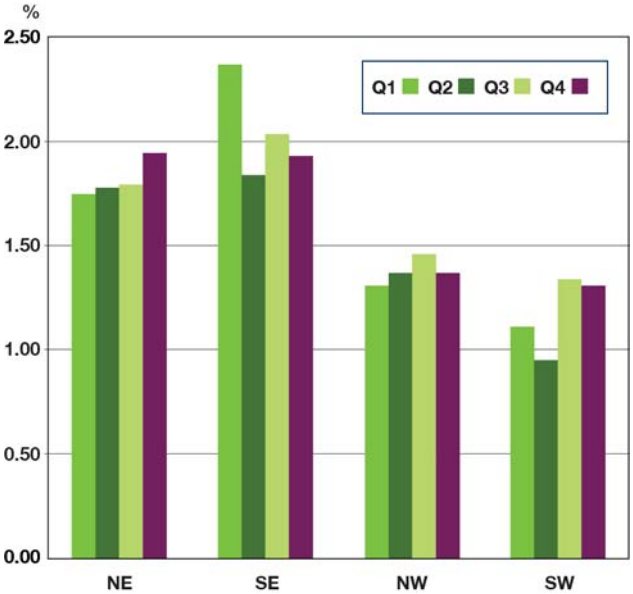

Figure 16 - KPI for lamp outages

Figure 16 shows OC performance against a maximum target of 2% lamp outages.

NE - BEAR ★★★★★

NE continued to deliver an excellent performance. Although a slight dip is noted from last year.

SE - BEAR ★★★★☆

Performance dipped to good in SE. Two out of four quarters exceeding the maximum outage target, with the overall annual lamp outage KPI result being 2.05%.

NW - Scotland TranServ ★★★★☆

In NW, it was noted that performance improved in relation to lamp outages. However, the overall performance dipped to good as the renewal of identification numbers on new or replacement lighting columns was poor.

SW - Amey ★★★★★
SW continued to deliver an excellent performance with improvement also noted from last year.

Safety fences, barriers and fencing

NE - BEAR ★★★★☆
Performance was again good with BEAR carrying out the majority of repairs within the required timescale.

SE - BEAR ★★★★☆
As in 2011/12, performance remained good with a small number of issues identified by PAGplus and resolved by BEAR.

NW - Scotland TranServ ★★★★☆
In general, the OC provided good performance throughout the year but was sometimes slow to react to damaged safety fences.

SW - Amey ★★★★☆
Performance was good although there were a small number of late repairs identified by PAGplus.

Drainage, gullies and ironwork

Figure 17 - Drainage channel cleaning at Oban on A85 in NW

Properly maintained drainage plays an important role in ensuring trunk road safety by removing surface water from carriageways (see figure 17). This reduces the risk of flooding for road users and helps prolong the life of carriageways.

NE - BEAR ★★☆☆☆
BEAR's performance dropped to poor. PAGplus identified issues relating to cyclic grip clearance, gully cleaning and catchpit cleaning. An NNC was issued after the end of the period (April 2013) for performance in 2012/13 as BEAR had failed to complete filter drain harrowing within the contract timescale and to remove weeds and detritus.

PAGplus was also concerned about the lack of RMMS records and paper records regarding the annual cleaning of gullies and catchpits.

PAGplus will work closely with the OC to ensure performance improves in 2013/14.

SE - BEAR ★★☆☆☆
BEAR's performance remained poor. Following the issue of an NNC for poor performance on drainage issues in May 2012 BEAR developed an improvement strategy; however, it took until May 2013 before sufficient progress was noted to allow closure of the NNC. PAGplus identified issues relating to gully and catchpit cleaning.

A further NNC was issued after the end of the period (April 2013) for performance in 2012/13 as BEAR had failed to remove weeds and detritus during filter drain harrowing operations, and the harrowing programme had not been fully completed within the contract timescales.

PAGplus will continue to work closely with the OC to ensure performance improves in 2013/14.

NW - Scotland TranServ ★★★☆☆
Overall, performance was fair with improvement noted over the course of the year. An NNC was issued after PAGplus identified a lack of cyclic maintenance in catch pits, gullies and completion of harrowing filter drains to the contractual requirements. This was closed following submission of an appropriate action plan. Scotland TranServ, Transport Scotland and PAGplus worked together to address the filter drain issues, with the OC completing harrowing operations to a good standard towards the end of the period.

As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW - Amey ★★★☆☆

Amey's performance dipped to fair. A good performance was delivered in maintaining serviceable drainage, however, an NNC was issued for non-compliance with the contract requirement to remove weeds and detritus during harrowing operations which the OC reacted to timeously. PAGplus identified issues relating to gully and catchpit cleaning.

As the OC is no longer responsible for the SW, it has no opportunity to improve performance in 2013/14.

Structures

The OCs are required to carry out cyclic maintenance to structures to keep them in optimum operating condition. These activities include clearing vegetation, cleaning joints, checking and cleaning bearings and parapets.

NE - BEAR ★★★☆☆

BEAR's performance dipped to fair. PAGplus' review of the OC's bridges cyclic operations showed that they were carried out in an efficient and organised manner but with room for further improvement.

PAGplus will monitor this activity closely during 2013/14.

SE - BEAR ★★★☆☆

Poor performance was noted at the start of the year which PAGplus worked closely with the OC to improve. Overall, performance was noted as fair over the course of the year.

PAGplus will monitor this activity closely during 2013/14.

NW - Scotland TranServ ★★★★☆

Scotland TranServ demonstrated good performance on the cyclic maintenance of structures completing all programmed cyclic maintenance by the end of the year.

SW - Amey ★★★★☆

A good performance on the cyclic maintenance of structures was provided by Amey. Initial investigations revealed errors in the programming information supplied to PAGplus but the issue was resolved and the OC completed all its programmed cyclic maintenance by the end of the year.

3.2 Reactive maintenance

Spend on reactive maintenance

Total spend on reactive maintenance during 2012/13 was £10.45m (in 2011/12 it was £9.2m).

3.2.1 Category 1 defects

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.

From figure 18 it is evident that during 2012/13 there was a contrast in performance between the OCs, with NE and SE performing better than the NW and SW.

Unit	2012/13	2011/12	2010/11
NE	98.2%	96.2%	81.0%
SE	95.7%	94.6%	90.0%
NW	91.5%	87.9%	88.0%
SW	92.7%	88.1%	87.0%

Figure 18 - OC KPI performance in repairing Category 1 defects

As the overall carriageway length in NW is approximately double that of the other OCs, it would be expected the number of category 1 defects identified would be higher, (see figure 19).

SW has the densest population area with the busiest sections of motorway and the second largest overall length of network length.

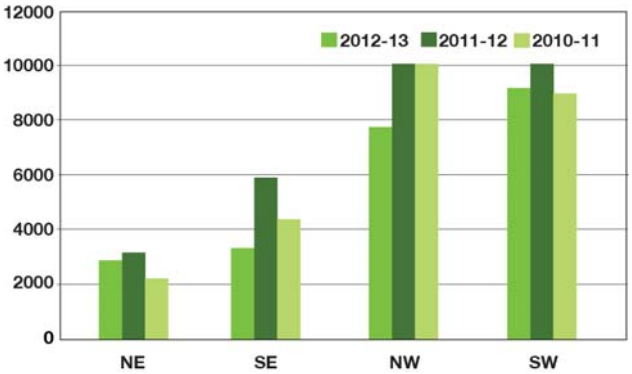

Figure 19 - Number of Category 1 defects

NE - BEAR ★★★★☆

BEAR's performance remained good during 2012/13, achieving 98.2% for repairing Category 1 defects. Some issues were identified with incorrect classification of Category 1 defects.

SE - BEAR ★★★★☆

BEAR maintained good performance with the KPI figure of 95.7% remaining above the threshold. Some issues were identified with incorrect classification of Category 1 defects.

NW - Scotland TranServ ★★☆☆☆

Scotland TranServ's performance was again poor. As a result of failing to achieve the KPI target of 95% in seven out of twelve months an NNC was issued in February 2013. This was closed following the submission of an appropriate action plan. Performance did improve towards the end of the year.

This is a disappointing performance by Scotland TranServ in the last year of the 3G contract. As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW - Amey ★★★☆☆

Amey's performance improved to fair this year. Performance was good at the start of the period, but fell below an acceptable standard towards the end with an overall KPI figure of 92.7%.

As the OC is no longer responsible for the SW, it has no

Figure 20 - Carriageway defect on A9 in NW

3.2.2 Emergencies

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 and
- incidents due to adverse weather.

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

Spend on emergencies

Total spend for attending emergencies during 2012/13 was £1.86m (in 2011/12 it was £3.13m). The breakdown between Units is shown in figure 21.

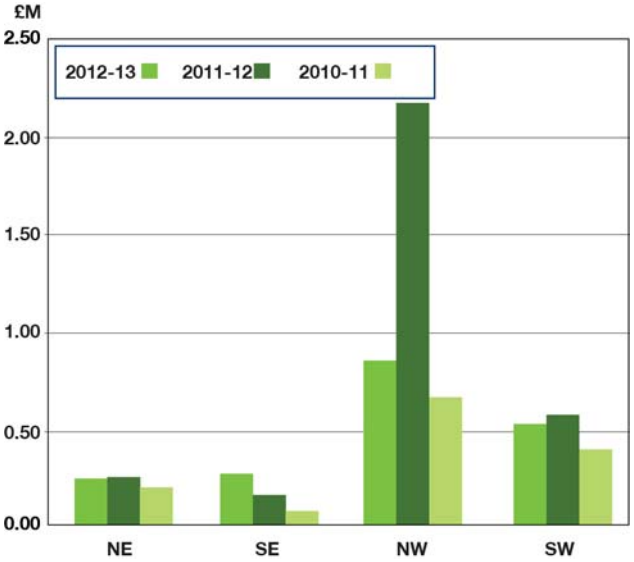

Figure 21 - Spend for emergencies during 2011/12 and 2012/13

Trunk road incident support service (TRISS)

TRISS operates on routes in the NE, SE and SW which are identified as having the potential for major delays due to breakdowns or other incidents. Transport Scotland does not require a TRISS in NW.

The overall aims of TRISS are to:
- clear up incidents more quickly
- offer assistance to broken down vehicles
- reduce congestion
- free up police time.

TRISS vehicles are specially adapted and equipped high roofed liveried vans. They are operated by trained staff working for the OCs. Roadside tasks, such as litter collection can be undertaken, when TRISS is not attending incidents. The target time for TRISS to get to an incident is 20 minutes if called out by Traffic Scotland, the OC control room 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 minimize disruption to road users.

Overall, the total number of emergency incidents attended by the OCs decreased from the previous year, but was similar to the number responded to in 2010-11. Severe winter conditions, particularly in NW and SW at the end of March 2013 saw collaboration between OCs and local authorities to clear deep snowdrifts.

A KPI is used to measure whether the OCs' response times are within the maximum allowed by the 3G contract. A comparison of performance for emergency response is shown in figure 22.

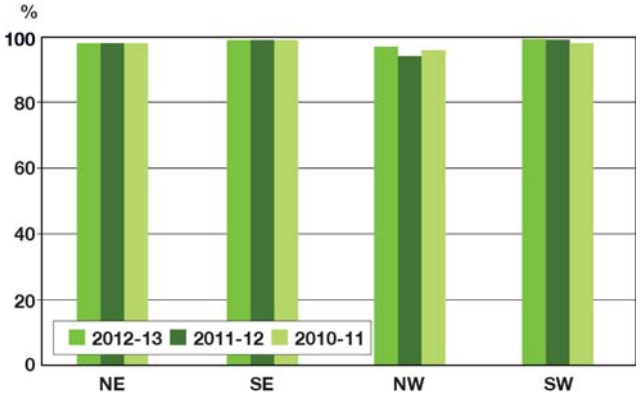

Figure 22 - Emergency response KPI

NE - BEAR ★★★★☆

Good performance was maintained by BEAR. There were a number of major incidents/emergencies in 2012/13 in NE, of which a quarter of those involved HGVs and two were caused by flooding.

SE - BEAR ★★★★☆

BEAR continued to provide a good performance. Simliar to NE, a quarter of incidents also involved HGVs with two caused by flooding.

NW - Scotland TranServ ★★★★☆

Scotland TranServ maintnained its good performance at responding to the various types of emergencies. KPI performance improved from 2011/12.

PAGplus carried out detailed reviews on the OC's response to four major incidents during 2012-13. On all incidents PAGplus noted that overall Scotland TranServ had been efficient and attended within the contractual response time.

SW - Amey ★★★★☆

Overall, a good level of performance was maintained by Amey in response to emergencies. PAGplus noted during a detailed review of the OC's response to major incidents that Amey was generally prompt and efficient.

Hazard notices

Hazard notices are issued to OCs immediately when PAGplus identifies hazardous situations, whether these are the responsibility of the OCs or third parties.

Hazards found on the network can include:

- Poor traffic management
- Faulty traffic signals
- Exposed electrical wiring
- Flooding
- Missing/broken ironwork and gullies (within trunk road boundary)
- Dangerous carriageway defects (potholes)
- Debris on the carriageway.

A total of 21 hazard notices were issued by PAGplus during 2012/13 (see figure 23) compared to 20 issued in each of the two previous years.

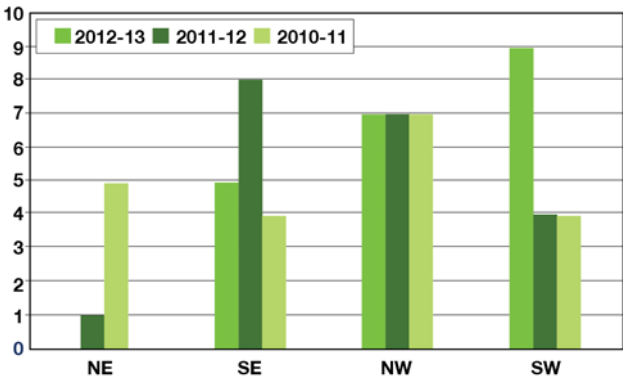

Figure 23 - Number of hazard notices issued

3.2.3 Winter

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.

Figure 24 - Winter conditions at Glenogle on A85 in NW

Winter service

Total spend on winter service during 2012/13 was £10.54m, 9% of the overall spend on the network (2011/12 was £11.9m).

The 3G contract requires 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 risks to road users.

Chapter 3
Delivery of service

Winter weather conditions

Spells of mild weather occurred in late December 2012 and early January 2013, but it was notably cold in early December 2012, mid to late January 2013, and the latter part of February and March 2013, at which time it was the coldest since 1962. There was a period of widespread snowfall across much of the country from mid to late January 2013 which caused disruption. Snowmelt and further rain resulted in some localised flooding. Further snow events in February 2013 were generally short-lived. However, heavy snowfall in late March 2013 caused major disruption.

Winter service improvements

The OCs brought in additional vehicles and equipment to deal with the winter. This included:

- BEAR (NE) deployed Fastrac vehicles, in addition to its existing fleet, as a further resource for snow clearing operations.
- BEAR (SE) was supplied by Transport Scotland with a specialised ice breaker to enhance the fleet of winter plant. Traffic management stock was deployed at motorway junctions to enable closure of the slip roads, if found appropriate.
- Scotland TranServ introduced a new data logger management software, which enabled more efficient management, recording and reviewing of the winter service provided.

Pre-winter exercises - all Units N/A

At Transport Scotland's request PAGplus organised and facilitated a one-day event in October 2012 to test the delivery and resilience of current procedures through an unfolding series of hypothetical scenarios across Scotland. The principle objective was sharing best practice and involved representatives from each of the OCs, Transport Scotland, Traffic Scotland, the police, local authorities and PAGplus.

The key outcome of the day was the importance of keeping communication lines open between all stakeholders during emerging winter conditions. Improvements to communications were a feature of recent work by Transport Scotland and are continuously developing.

Performance assessment

PAGplus assessed the OCs' performance for the following areas over the 2012/13 winter period:

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

Winter readiness - all Units ★★★★★

Winter preparedness audits were carried out in all four Units prior to the start of the winter season. The audits concluded that the OCs were on the whole prepared for winter, as required by the contract.

Winter decision making

Transport Scotland and the OCs held regular weekly teleconference calls to support winter decision making. At these calls the OCs reported on the winter service undertaken during the preceding week and reviewed the weather forecasts for the following week with Transport Scotland to assess the winter service preparations. When severe weather was forecast the frequency increased to daily teleconference calls, with the addition of Met Office and Police Scotland to support strategic winter decision making and network resilience.

During the winter period PAGplus undertook a number of retrospective reviews of the OCs' winter decision making and performance.

NE – BEAR ★★★★☆

Three winter performance reviews were undertaken by PAGplus for the NE. Overall, performance remained good. PAGplus noted that all actions were deemed acceptable. Record keeping of decisions made regarding treatment has room for improvement.

SE – BEAR ★★☆☆☆

Winter performance dropped to poor following three winter performance reviews undertaken by PAGplus. It was noted that decision making was not in line with contractual requirements. Record keeping of subsequent decision making was poor.

Chapter 3
Delivery of service

PAGplus will work closely with the OC to ensure performance improves in 2013/14.

NW – Scotland TranServ ★★☆☆☆

Two winter performance reviews were undertaken by PAGplus, which found performance had dropped to poor. In the reviews PAGplus noted that initial planned treatments were not appropriate to the conditions, monitoring of developing conditions was not adequate, and treatments were not fully carried out as planned.

This is a disappointing performance by Scotland TranServ in the last year of the 3G contract. As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW – Amey ★★★★☆

Amey's performance remained good. Two winter performance reviews were undertaken by PAGplus and noted that all actions were deemed acceptable.

Winter service KPIs

To measure performance in undertaking winter duties the OCs' report their performance monthly using three KPIs. These cover:

- Response times
- Treatment times
- Successful electronic data logger downloads.

KPI for winter service response times

This measures how quickly a reactive de-icing treatment commences. Treatment must start within one hour of the decision being made (see figure 25).

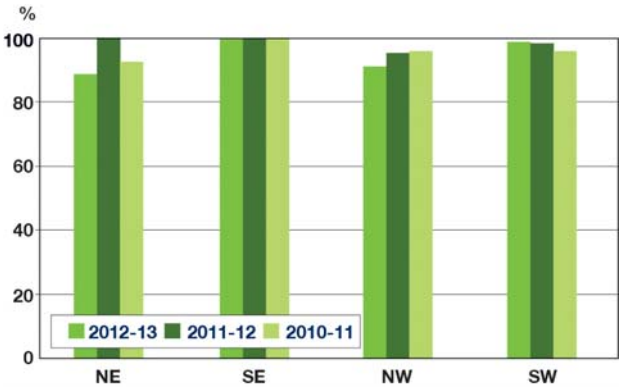

Figure 25 - Comparison of KPI for winter response times

NE - BEAR ★★★☆☆

BEAR's performance dropped to fair in meeting winter service response times compared to last year.

PAGplus will monitor this activity closely during 2013/14.

SE – BEAR ★★★★★

BEAR continued to deliver an excellent performance.

NW – Scotland TranServ ★★☆☆☆

The performance of Scotland TranServ dropped to poor this year in meeting the response times.

As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW – Amey ★★★★★

Amey maintained excellent KPI performance this year.

KPI for winter service treatment times

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

Figure 26 - Comparison of KPI for winter treatment times

NE - BEAR ★★★☆☆

BEAR Scotland performance was fair in completing precautionary treatments this year.

PAGplus will monitor this activity closely during 2013/14.

SE - BEAR ★★★★☆

The OC performed to a good standard. This was a slight reduction from the previous year.

NW - Scotland TranServ ★★★★☆
Scotland TranServ achieved a good KPI performance with a slight dip from last year.

SW - Amey ★★★★★
Amey continued to show excellent performance in completing winter service treatments.

KPI for successful electronic data logger downloads

The data loggers record, in electronic format, the de-icing material spread rate, location, date and time of spreaders on the Network. The KPI measures the percentage of successful electronic data logger downloads (see figure 27).

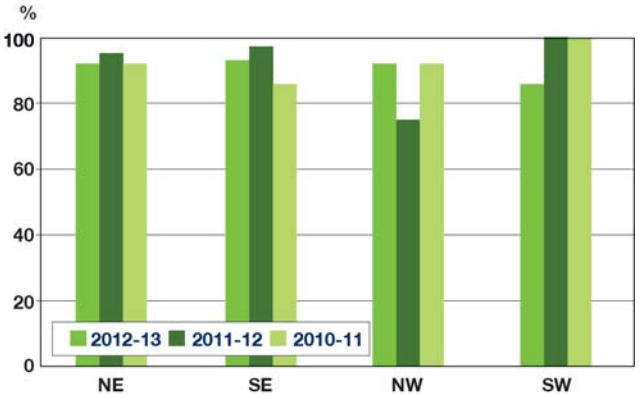

Figure 27 - Comparison of KPI for successful data logger downloads

NE - BEAR ★★☆☆☆
The performance of BEAR at downloading data logger information dropped to poor.

An NNC was issued in January 2013 for poor data logger download performance, which was subsequently closed in April 2013 following improvement.

PAGplus will work closely with the OC to ensure performance improves in 2013/14.

SE - BEAR ★★☆☆☆
The OC showed a drop in performance from good to poor this year.

An NNC was issued in January 2013 for poor data logger download performance, which was subsequently closed in April 2013 following improvement.

PAGplus will work closely with the OC to ensure performance improves in 2013/14.

NW - Scotland TranServ ★★☆☆☆
Scotland TranServ was able to improve the percentage of datalogger downloads completed, but performance remained poor.

An NNC was issued in January 2013 for poor data logger download performance, which was subsequently closed in February 2013 following improvement.

This is a disappointing performance by Scotland TranServ in the last year of the 3G contract. As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW - Amey ★★★☆☆
Overall, performance remained fair over the period. A very poor start to the winter season was turned around by November with 100% KPI achieved throughout the remainder of the period.

Management of salt stocks - all Units ★★★★★

All OCs continued to be proactive in managing salt stocks and maintained close liaison with Transport Scotland (see figure 28).

Regular teleconferences were held with Transport Scotland and the OCs, with more frequent conference calls undertaken in advance of and during wintry and windy conditions.

There were no recorded issues with the management of salt stocks during the period.

Figure 28 - Salt barn at Lochgelly depot in NE

Figure 29 - Snow clearance on A702 in SE

Winter related road closures - all Units N/A

Heavy snowfall and flooding (caused by snowmelt and heavy rain) caused significant disruption across the UK with transport particularly affected. The OCs demonstrated good performance throughout the period to minimise disruption to road users in Scotland. There was co-operation between the OCs, with the provision of vehicles and services provided to other Units when more resources were required.

There were no winter related road closures over four hours in NE or SE during the period.

There was one winter related road closure over four hours in NW.

In SW, there were two major winter-related road closures, A77 for 23 hours and A75 for 20 hours, both in March 2013. Amey showed excellent application in working hard to keep roads clear of snow during and after the closures with strong winds forcing re-ploughing/salting.

Winter period	No of winter related major incident road closures
2012/13	3
2011/12	2
2010/11	15
2009/10	21
2008/09	3
2007/08	6
2006/07	3
2005/06	7
2004/05	4
2003/04	11

Figure 30 - Number of winter related road closures over the last 10 years

3.3 Planned 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 up to £250k. Larger schemes are procured using works contracts (see section 3.4).

3.3.1 Roads

NE - BEAR ★★★★☆
BEAR maintained good performance during the period, with good workmanship being delivered during the construction of schemes using experienced resources. Supervision and documentation records were of a high standard at sites visited and at post completion reviews in the OC offices.

Traffic management arrangements were good and health and safety procedures were well attended on sites inspected by PAGplus. BEAR responded well to a budget increase late in 2012. Additional experienced resources completed several schemes prior to April 2013, despite adverse winter weather for a prolonged period.

SE - BEAR ★★★☆☆
Overall, a fair performance was delivered by BEAR during the period, a dip from last year. Experienced resources delivered good workmanship with the documentation of records being maintained to a high standard on sites visited by PAGplus. This was also reflected at post completion reviews in the OC offices.

Supervision arrangements were good and health and safety procedures were well attended to sites inspected by PAGplus.

Issues were noted, however, with an NNC issued for non compliant traffic management. The OC responded well by implementing daily self audits on site for a three month period, throughout which significant improvements were noted. BEAR responded to an increase in budget provision late in 2012 with additional experienced resources. However, prolonged winter weather resulted in a shortfall of fulfilling the budget spend.

PAGplus will monitor this activity closely during 2013/14.

NW - Scotland TranServ ★★★★☆
Scotland TranServ performance remained good.

Sites observed by PAGplus were supervised with experienced personnel, and workmanship was generally good (see figure 31), however, some sites required remedial actions following completion of construction. Record keeping was good and traffic management was also found to be good.

Some issues were highlighted at follow up reviews for delivery of MSD information, which was subsequently addressed by the OC.

Scotland TranServ dealt well with the increase in budget late 2012 and completed the additional schemes throughout the winter months.

Figure 31 - Drishaig near Lochawe on A85 in NW

SW - Amey ★★★★☆

Amey's performance improved to good from the previous year.

Sites observed by PAGplus were supervised by experienced personnel, and workmanship was good. Record keeping and traffic management were of a high standard (see figure 32).

Scheme files reviewed by PAGplus generally were of a high standard.

Amey responded well to the increase in budget late in 2012 and completed all the shovel ready schemes.

Figure 32 - Bellziehill northbound on ramp on A725 in SW

3.3.2 Structures

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 serviceable 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

NE - BEAR ★★★☆☆

Overall, BEAR's performance dipped to fair.

A9 Crieff Road Bridge Phase 1 works included re-waterproofing and resurfacing of the deck. However, the quality of the new surfacing laid by BEAR's sub-contractor was poor and had to be replaced.
Joint replacements at A96 Fochabers New, A90 bridges, A9 Crieff Road Bridge Phase 1 and M90 Friarton Bridge were delayed due to poor performance by BEAR's sub-contractor.

Unforeseen requirements of Network Rail delayed A96 Haughs Rail Bridge Phase 3 works. As a result these weather dependent works were further delayed until after the prolonged winter period and are now programmed for 2013-14.

PAGplus will monitor this activity closely during 2013/14.

SE - BEAR ★★★★☆

BEAR's performance over the year was good, dipping from excellent in 2011/12.

Several small schemes were successfully completed over the year, including the replacement of various sub-standard parapets and the upgrading of vehicle restraint system tie-ins.

Joint replacements at A720 Water of Leith, M8 Junction 6, M8 Livingston Road and M8 Starlaw bridges were delayed due to poor performance by BEAR's sub-contractor.

BEAR's performance with regard to implementation of environmental mitigation at bridge works, for example at A68 New Abbey Bridge, was poor.

NW - Scotland TranServ ★★★★☆

Scotland TranServ maintained a good performance. The OC successfully delivered a wide variety of structures maintenance projects including; A9 River Braan deck refurbishment, A9 Slochd Beag re-waterproofing, A830 Arienskill passively safe pedestrian guard rail added, A835 Conon Bridge steelwork repair and bearing replacement, A9 Moy Bridge concrete repairs, A82 Loch Lochy wall repairs and A82 Fort Augustus mechanical and electrical repairs to the swing bridge.

A835 Conon Bridge refurbishment works was a particular success. This incorporated an innovative suspended deck system to provide access under the bridge and allow detailed surveys and repairs to be carried out safely.

SW - Amey ★★★★☆

Amey maintained a good performance. The OC successfully managed a wide variety of structural maintenance projects including: painting works on M73 Woodneuk Avenue and Johnstone Road Bridges; M8 joint replacement works on a number of bridges including the Baillieston high loop; A725 Bellziehill Interchange re-waterproofing; A78 Largs Seawall replacement; A76 Woodhead Culvert replacement and A75 Glasgow Road cable anchorage refurbishment.

The two projects that particularly stand out are the seawall replacement, which resulted in innovative solutions to fit the replacement units within a restricted site, and the new culvert which was a result of the collapse of the existing culvert due to flooding and was installed to a high quality within programme.

3.4 Works contracts

Works contracts
Schemes with an estimated value between £250k and £5m are generally put out to tender 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.

Tender Documents - all Units ★★★★☆

Prior to contractors being invited to tender, the OCs submit draft tender documents to PAGplus for review. PAGplus has a target of reviewing at least 25% of submitted tender documents each year.

Ten sets of tender documents were received by PAGplus for review in 2012/13 (see figure 33). Seven of these were reviewed in detail by PAGplus. The number reviewed exceeded PAGplus' target at the request of Transport Scotland, who requested a review by PAGplus on a number of specific tenders.

The standard of preparation of tender documents was good overall, with only minor issues noted.

Unit	Number received 2012/13	Number received 2011/12	Number received 2010/11
NE	2	6	4
SE	5	5	7
NW	2	0	2
SW	1	0	4
Total	10	11	17

Figure 33 - Number of tender documents received by PAGplus

Chapter 3
Delivery of service

Supervision

NE - BEAR ★★★★☆

BEAR's performance remained good. Two works contracts were completed during 2012/2013, A90 Old Glamis Road to Forfar Road and M90 Dron to Bridge of Earn Northbound. TS2010 thin surface course was laid successfully on both schemes, with the surface course performing well.

Supervision of the works contracts was carried out by experienced staff from BEAR. There were no contractual issues and overall the standard of workmanship was good. Both contracts were completed four days ahead of the programme and for less than the tendered values.

SE - BEAR ★★★★☆

BEAR's performance remained good. Four works contracts, M8 River Almond Phase 1 Westbound, M8 River Almond Phase 2 Westbound, M9 River Avon Bridge Refurbishment and M8 B718 Shotts and Duntilland Bridges were completed during 2012 /2013.

The works contracts were supervised to a high standard by BEAR ensuring no contractual issues resulted from the works. The use of a tidal contra-flow on the M9 contract greatly assisted the flow of traffic through the works. The overall standard of workmanship was good.

NW - Scotland TranServ ★★★★☆

Scotland TranServ showed good performance during the period. Two works contracts were started during 2012/13, and will continue with the new OC for the 4G Contract BEAR in 2013/14.

A82 Allt Chonoglais Bridge replacement started in December 2012 following delays in installing the temporary bridge and removal of the existing bridge. Traffic delays were minimised with the use of two way traffic on the temporary bridge. The supervision of these works has been good. Anticipated completion date is August 2013. The tender value of the works is £1.8m.

A9 Kessock bridge waterproofing, resurfacing and barrier replacement experienced delays during the removal of the existing waterproofing (see figure 34). The supervision of these works has been good. The estimated completion date is July 2013. This contract had a tender value of £13.2m.

Figure 34 - Resurfacing of Kessock Bridge on A9 in NW

SW - Amey ★★★★☆

Amey's performance improved to good. Only one works contract was completed this year, A898 Erskine Bridge pedestrian parapet replacement. This works contract was completed on time at a cost of £2.5m. There was a good working relationship between Amey's Resident Engineer and the contractor.

A further works contract on A898 Erskine Bridge for vehicle barrier parapet replacement was due to start during 2012/13 (December). However, the start of the works were delayed by over four months due to Amey not recognising the need for a marine licence. This works contract is now aniticipated to start in the summer of 2013.

3.5 Improving safety

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 :

Strategic Road Safety
- new signing and road markings
- anti-skid treatments
- traffic calming measures
- route accident reduction plans

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

3.5.1 Strategic road safety schemes

Each year the OCs analyse accident data using the Moving Cursor Programme (MCP) provided by Transport Scotland. The MCP identifies locations on the network with clusters of three or more personal injury accidents over the preceding three year period.

Strategic road safety improvements are subsequently identified and prioritised.

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

The OCs liaise with Transport Scotland, local authorities and the police when preparing their lists of proposed strategic road safety schemes. Liaison continues throughout the design and construction phases.

NE - BEAR ★★★★★
BEAR maintained excellent performance in identifying and implementing various road safety measures across the Unit within the allotted budget.

The OC carried out cluster studies at various locations including A9, A96 and A9/M90 Broxden Roundabout.

Improvements included the installation of new speed limit signs in Elgin, Forres, Nairn and Dundee. BEAR also upgraded signage at A90 Charleston interchange in Aberdeen.

The OC implemented a Route Accident Reduction Plan (RARP) for A92, and carried out a review of traffic signals on A90 Claverhouse.

The electrical supply to Ice Alert stations was upgraded on various routes

SE - BEAR ★★★★☆
BEAR provided a good performance identifying and implementing various road safety measures across the Unit.

Road safety improvements included the installation of new traffic signs at M8 J3a, and road markings at M9 J3-2 and on A7 between Hawick and the English border.

NW - Scotland TranServ ★★★★★
Scotland TranServ's performance during 2012/13 remained excellent.

Section studies were completed for the A85 from Gilmerton to Lochearnhead, the A84 from Callander to Lochearnhead and the A9 from Clashmore to Golspie.

A detailed investigation was completed with a focus on motorcycle safety, which will form the basis for future intervention initiatives aimed at reducing the number and severity of motorcycle accidents.

Work was undertaken to improve safety on A830 between Glenfinnan and Lochailort included speed surveys and the trial of Variable Message Signs.

SW - Amey ★★★★★
Amey's performance improved to excellent from fair. The OC installed new crash barrier on A82 west of A898 junction. Works associated with RARPs undertaken on A737 and A76.

Road markings were improved at prioritised locations throughout the Unit with additional budget received from Transport Scotland.

3.5.2 Minor improvement schemes

NE - BEAR ★★★★★
BEAR maintained an excellent performance.

Junction improvements were carried out by BEAR on A95, and A90 Mundurno to Tipperty. The OC also undertook bend assessment schemes for A90 north of Aberdeen.

Lighting was upgraded on approach footpaths to A90 Forfar Road underpass. BEAR also designed new internal lighting for M90 Friarton Bridge to improve the safety of maintenance operatives, with installation planned for April 2013.

SE - BEAR ★★★★★
BEAR's performance remained excellent.

Minor improvements include the upgrading of lighting at A6091 Galafoot Bridge and A720 Old Craighall Roundabout, and illuminated signage at M8 J3a.

NW - Scotland TranServ ★★★★★
Scotland TranServ's performance during 2012/13 remained excellent. Additional funds were made available for the provision of a temporary diversion route at A83 Rest and Be Thankful, which was delivered on time.

SW - Amey ★★★★☆
Amey's performance remained good.

A right hand turn lane was constructed on A75 east of Twynholm, and on A78 Inverkip vehicle-activated signs were installed. Drainage investigations were carried out at sites on A78.

Chapter 4
Quality of service

Key points

Quality management
- All OCs continued to be certified to ISO 9001, either directly or through their parent companies.
- The OCs continued to operate their QMS successfully.
- The OC internal audit programmes were prepared using a risk based approach.

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, working to initiatives such as Zero Harm and Target Zero.
- A zero accident rate remains a key target for all OCs. All OCs reported low levels of reportable RIDDORs, with NW reducing its reportable level to zero.

Environmental management
- The OCs continued to be certified to ISO 14001, either directly or through their parent companies.
- Although OCs continued to develop, improve and operate their environmental management systems (EMS), the PAGplus audits identified a number of issues in NE and SE requiring attention.

Information systems
- All OCs continue to operate a substantially robust contract control and management system (CCMS) during 2012/13.

Continuous improvement
- PAGplus and the OCs continue to work together to resolve issues identified.
- No remedial notices were issued in 2012/13.
- There is room for improvement by all OCs, evidenced by the KPI performance and issuing of NNCs.

Chapter 4
Quality of service

4.1 Management systems

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 35).

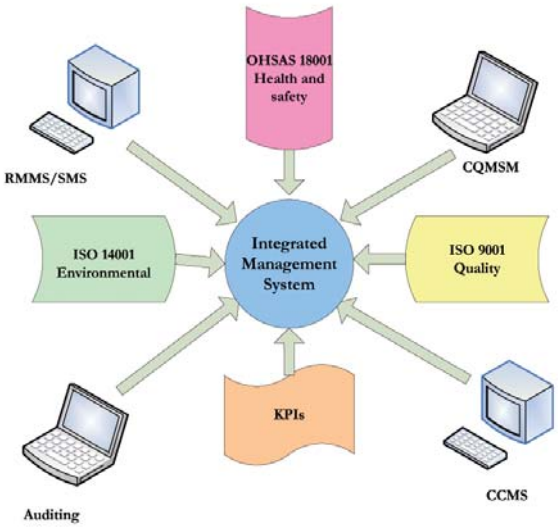

Figure 35 - Processes influencing an Integrated Management System (IMS)

Quality management - maintaining compliance

NE and SE - BEAR ★★★★☆

BEAR's overall performance remained good.

BEAR's quality management system (QMS) is well maintained and fulfilled the requirements of the ISO 9001:2008 and 3G contract requirements for both NE and SE.

BEAR demonstrated continual improvement of its QMS, evidenced by maintaining accreditation for OHSAS 18001:2007 (H & S), BS EN ISO 9001: 2008 (QMS), BS EN ISO 14001:2004 (EMS). BEAR's management system has been created to comply with the requirements of British Standard EN ISO 27001 (IT Security). BEAR maintained approval to National Highway Sector Schemes (NHSS) 2B, 8 and 12A/B/C /D (Traffic Management).

Four Contract Quality Management System Manager (CQMSM) audits were undertaken by an independent contract quality auditor. Areas audited included:

- Cyclic maintenance process
- Operational control and emergency preparedness
- Management system activities (MSA)
- Planned maintenance works contracts.

The majority of non-conformance issues related to cyclic maintenance, MSA and planned maintenance works contracts audits. The audits showed continued compliance with all actions and issues being followed through to completion or were in progress. The 6-monthly review summary, with its contents in line with the contract requirements, was subsequently received by Transport Scotland and PAGplus.

NW - Scotland TranServ ★★★★☆

Scotland TranServ maintained good performance from the previous year.

Scotland TranServ retained certification to the three standards OHSAS 18001:2007, BS EN ISO 14001:2004 and BS EN ISO 9001: 2008.

Four CQMSM audits were carried on four different depots (Corpach, Ardelve, Kingussie and Killin Depots), with issues focused upon in each of the audits including:

- Scheme files, risk assessment and work instructions
- Calibration, environment management and emergency planning
- Control of suppliers, plant and equipment checks, COSHH briefing
- Traffic management, training records, plant and vehicle documentations.

These audits demonstrated continued compliance, with actions raised addressed accordingly.

SW - Amey ★★★★☆

Amey's QMS system continued to work effectively and efficiently and was well controlled. The good performance recorded in 2011/12 was maintained.

A total of three CQMSM audits were completed within the contract year. The audits focused on the compliance with:

- Fleet Management – All Fleet Management processes and procedures
- Works contracts – Procurement of works via works contracts.

Continued compliance was evident in most areas with issues raised progressing accordingly.

Quality management - rectifying non-compliance (PAGplus)

The performance for PAGplus corrections on time was monitored through KPI 14 for all OCs (see figure 36).

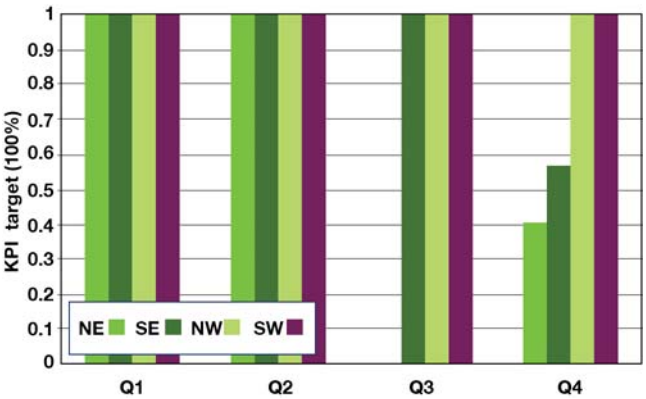

Figure 36 - OC performance in closing PAGplus corrections

NE - BEAR ★★☆☆☆

Closing out PAGplus corrections on time showed a marked decrease in performance during the latter half of 2012/13. Whilst BEAR maintained a figure of 100% in closing out PAGplus corrections within the allocated timescales for the first two quarters, the third quarter result was reported as 0% as closure of the two PAGplus corrections related to winter preparedness did not meet their agreed timescales. Performance in the fourth quarter improved, but only to 40% resulting in an overall poor performance for 2012/13 (see figure 36). Audits and management of closing out non conformances were poor resulting in a decreased performance compared to 2011/12.

PAGplus will work closely with the OC to ensure performance improves in 2013/14.

SE - BEAR ★★★☆☆

BEAR's performance decreased to fair, with a disappointing dip during the fourth quarter to 57% (see figure 36). Audits and management of closing out non-conformances were poor resulting in a decreased performance compared to 2011/12.

PAGplus will monitor this activity closely during 2013/14.

NW- Scotland TranServ ★★★★★

The performance of closing out PAGplus corrections on-time was excellent, maintaining 100% during 2012/13 (see figure 36).

QMS audits by PAGplus confirmed the system continued to be well managed and was working effectively to meet the 3G contract requirements. Some actions required resolution and were overdue during 2012/13.

SW- Amey ★★★★★

PAGplus QMS audits confirmed that Amey progressed and met the contract and ISO 9001:2008 requirements. Performance in closing out corrections raised by PAGplus remained good throughout the year maintaining the KPI at 100 % (see figure 36).

PAGplus system audits found Amey operated an effective QMS.

Chapter 4
Quality of service

Quality management - rectifying non-compliance (internal)

The performance of the OCs in closing internal corrections on time is measured by a KPI (see figure 37).

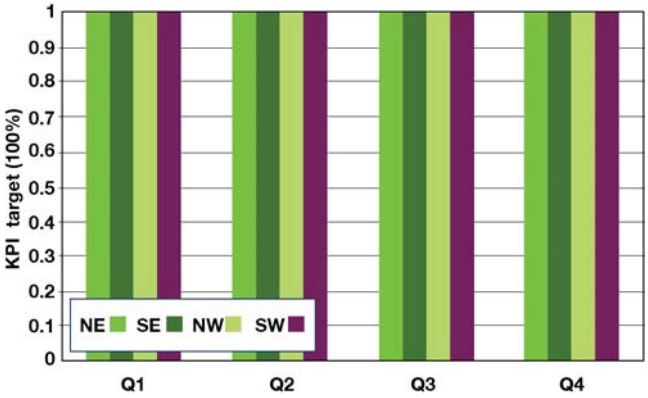

Figure 37 - Internal corrections closed out within stated timescale

NE and SE - BEAR ★★★★★

BEAR's performance improved to excellent, maintaining a figure of 100% in closing out internal corrections in all four quarters within the allocated timescales, (see figure 37).

BEAR successfully completed all planned internal audits by the end of 2012/13. These audits were found to be satisfactory and met the requirements of the 3G contract.

NW- Scotland TranServ ★★★★★

The performance in closing out corrections on time was excellent, improving on last year and maintaining 100% during this year (see figure 37). Scotland TranServ successfully completed its 2012/13 internal audit programme.

Scotland TranServ audits and management of closing out the non-conformance were good.

SW- Amey ★★★★★

Amey continueD to show excellent performance, maintaining a figure of 100% in closing out internal corrections in all four quarters within the allocated timescales (see figure 37).

Amey successfully completed its 2012/13 internal audit programme. The majority were completed within their planned audit month.

Health and safety management

Health and safety
All OC'S continued to maintain accreditation to their occupational health and safety management systems (OHSAS).

OCs are required to report to the Health and Safety Executive (HSE) any incidents involving deaths and injuries, occupational diseases and dangerous occurrences under the legislation requirements of The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR). From the 6 April 2012, the over-three-day reporting requirement to the HSE for people injured at work changed to over-seven-day injuries. OCs are still required to keep records of an accident if an employee was incapacitated for more than three consecutive days.

PAGplus carried out a series of Health and Safety audits during the first half of the year. The audits focused on visits to depots across all Units to check OCs were meeting their 3G Contractual obligations and Safety Management System requirements.

A second group of health and safety audits in the latter part of 2012/13 year focused on NE and SE. The audits concentrated on the particular requirements of OHSAS 18001 and associated Contract obligations for health and safety. The selected areas for auditing encompassed the health and safety policy, hazard identification, risk assessment and determining controls, objectives and programmes, competence, training and awareness, incident investigation and nonconformity, corrective action and preventive action.

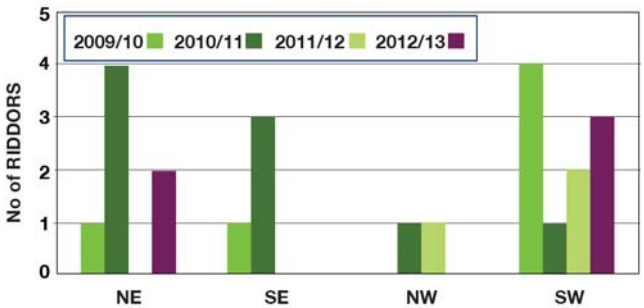

Figure 38 - OC RIDDOR performance

Chapter 4
Quality of service

NE - BEAR ★★★☆☆
BEAR's performance dipped to fair as a result of two reportable incidents compared to none reported in the previous year (see figure 38). Both incidents concerned slips, trips and falls.

One finding was raised for missing COSHH (Control of Substances Hazardous to Health) assessments at Perth Depot.

PAGplus will monitor this activity closely during 2013/14.

SE - BEAR ★★★★★
BEAR's performance improved to excellent. As in 2011/12, there were no reportable incidents under RIDDOR requirements (see figure 38).

No findings were raised at PAGplus health and safety audits

NW - Scotland TranServ ★★★★★
Scotland TranServ achieved excellent performance, with no reportable incidents to the HSE, compared to the previous year where there was one reportable injury (see figure 38). No findings were raised at PAGplus health and safety audits.

SW - Amey ★★★☆☆
Amey's performance dipped to fair, as a result of the reporting of three RIDDORs over the period of 2012-13 (see figure 38). No findings were raised at PAGplus health and safety audits.

As the OC is no longer responsible for the SW, it has no opportunity to improve performance in 2013/14.

Environmental management

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.

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

Two EMS audits were carried out in the East Units and one in the West Units by PAGplus.

The first audit for the East Units was to verify that the OCs' EMS was being maintained and implemented at the various stages of all works carried out. The second was to verify that the OCs' EMS was subject to continual improvement from planning, through design and into construction for all works.

The EMS audit for NW looked to establish how well the OC had implemented its EMS within depots and sites, whereas the audit in SW looked at how well the OC documented, implemented, maintained and continually improved EMS over the whole contract.

NE and SE - BEAR ★★☆☆☆
BEAR's performance dipped further to poor.

During the first audits it was noted that BEAR was not 100% compliant with EIA regulations, evidenced by errors in carrying out environmental assessments.

The second audit identified errors in screening reports and a finding was raised for the mitigation provided being generic and not always specifically relating to the potential impacts identified in the screening reports.

Three findings were raised in NE and SE during 2012/13. All three have been closed out.

PAGplus will work closely with the OCs to ensure performance improves in 2013/14.

NW - Scotland TranServ ★★★★☆
Scotland TranServ's performance remained good.

The EMS audit undertaken identified that the OC had no programme in place for achieving the contract objectives and targets that had been established. Environmental aspects at Beauly depot were found to be well managed with evidence of continual improvement.

Scotland TranServ held internal meetings to resolve and close this finding and subsequently provided a programme for achieving the stated objectives and targets.

SW - Amey ★★★★☆
Amey maintained its good performance from 2011/12.

The EMS audit highlighted that achievement of 2011 environmental objectives and targets for the 3G contract had not been documented and 2012 objectives and targets, whilst set, were identical to those established for 2011. Overall, performance on site and at the depot was good.

4.2 Information systems

Routine maintenance and management system

Further details are given under section 2.3.1

Structures management system

Further details are given under section 2.3.2

Contract control and management system

The OCs continued to operate fully functional contract control and management systems (CCMS) during 2012/13.

Whilst certain functional areas of CCMS performance regarding reporting gave some cause for concern, this did not affect the integrity of the systems.

It was agreed that CCMS Systems User Group forums to be arranged as and when required. No meetings were arranged in 2012/13.

Following the closure of the west 3G contracts, Transport Scotland and PAGplus had no access to NW or SW CCMS, which affected the monitoring and review process of items claimed through the statement to 31 March 2013 and for KPI monitoring.

NE and SE - BEAR ★★★★☆
Performance continued to be good in 2012/13. There were minor issues addressed in system performance with either running or access to standard reports; Order v Spend, Scheme completion and Consolidated Financial Reports.

NW - Scotland TranServ ★★★★☆
Performance improved significantly during 2012/13. There were minor issues addressed in system performance with either running or access to standard reports; Order v Spend, Scheme completion and Consolidated Financial Reports.

SW - Amey ★★★★☆
Performance continued to be good in the year with minor issues addressed in system performance of running payment notification record reports and cumulative totals.

4.3 Continuous improvement

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 use and recurrence where deficiencies are uncovered.

PAGplus monitors the OCs' systems and uses an escalation process to ensure issues are resolved (see figure 39).

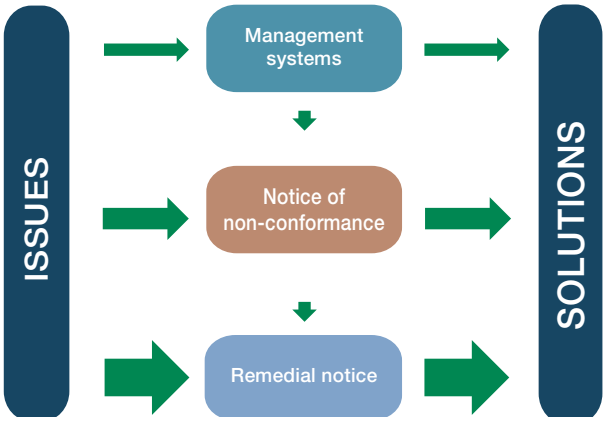

Figure 39 - Escalation process

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.

OC performance

Remedial notice and NNC activity since 31 March 2013, which relates to 2012/13 performance, has not been taken into account in this section. This has been considered in the appropriate sections elsewhere in this report. Three NNCs were issued since 31 March 2013 relating to 2012/13 performance, two in the NE and one in the SE.

Two Remedial Notices (RN) were issued since 31 March 2013, one each to the 3G OCs for NW and SW, for failure to provide and maintain all necessary hardware and software communications links following the end of the Contract Period to enable Transport Scotland and PAGplus to continue with their respective duties.

Eighteen NNCs were issued between 1 April 2012 and 31 March 2013 to the OCs. This compares to thirteen NNCs issued in the previous 12 month period.

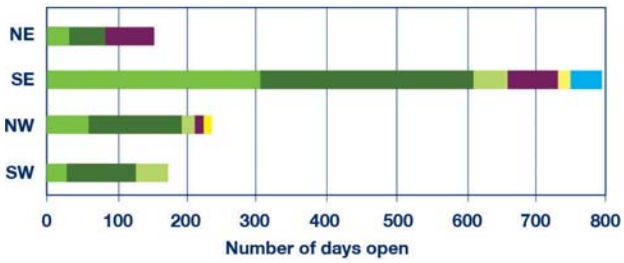

Figure 40 - Number of days NNCs were open during 2012/13

NE - BEAR ★★★☆☆

In 2012/13, three NNCs were issued compared with two in 2011/12.

BEAR's overall performance remained fair with an improved response time to closure compared with 2011/12. Two NNCs remained open for one month and the third for two months. No NNCs were carried over from 2011/12 (see figure 40).

As in 2011/12, no remedial notices were issued during 2012/13.

PAGplus will continue to monitor this activity closely during 2013/14.

SE - BEAR ★☆☆☆☆

Six NNCs were issued in 2012/13, BEAR's highest number since 2009/10, resulting in a decrease in performance to unacceptable. Two of the NNCs were open for over 300 days during 2012/13, one of which was closed out after 362 days and the other remained open at the end of 2012/13. Two of the other four NNCs were also still open at the end of the contract year. Both are now closed out after being open for two months. No NNCs were carried over from 2011/12 (see figure 40).

No remedial notices were issued in 2012/13, the same as in the previous year.

Transport Scotland and PAGplus will work closely with the OC to ensure improved performance is delivered in 2013/14.

NW - Scotland TranServ ★★☆☆☆

Overall, Scotland TranServ's performance decreased to poor. In 2012/13, five NNCs were issued compared to three in the previous year.

Scotland TranServ responded quickly to close out three of the NNCs, and a fourth was closed out in within two months. The fifth NNC was eventually closed out after four months. The average time to closure showed a slight improvement compared to the previous year. No NNCs were carried over from 2011/12.

As in 2011/12, no remedial notices were issued.

This is a disappointing performance by Scotland TranServ in the last year of the 3G contract. As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

Chapter 4
Quality of service

SW - Amey ★★★☆☆

Overall, Amey's performance dipped to fair (see figure 40), with four NNCs issued compared to two in 2011/12. There was an increase in the average time to close out, with one NNC open for over three months. One NNC was open at the end of contract year. This was closed out in the first month of 2013/14.

As the OC is no longer responsible for the SW, it has no opportunity to improve performance in 2013/14.

Key performance indicators

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

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 42, to 45 summarise OC performance against each benchmark KPI. Inset to these are the same KPI results for 2011/12 (see figures 46 to 49).

KPI - Continual improvement

In comparison to 2011/12, the performance of all OCs dipped in 2012/13. Apart from Category 1 defects (KPI 1), failures to reach thresholds varied from OC to OC across a wide range of KPIs, reflected in the high number of NNCs issued.

The KPIs not referenced elsewhere in this report can be categorised as reporting and communications (KPIs 28, 29 and 30) and human resources (KPIs 33, 34, 35 and 36).

All Units exceeded the threshold target for submission of reports, programmes and minutes (KPI 28) and for answering correspondence, enquiries and complaints (KPI 29). An excellent 100% record was achieved by all Units in drafting responses to Transport Scotland on general and ministerial correspondence.

The thresholds set for the human resources KPIs were generally met, with staff turnover (KPI 33) slightly high for the SE, the sickness absence (KPI 34) threshold exceeded by SW and the working hours (KPI 35) threshold also exceeded by SW. All Units met the target for training days (KPI 36).

KPI No.	KPI name	Section
1	Repair of category 1 defects	3.2.1
2	Safety inspections	2.2.1
3	Detailed inspections	2.2.2
4	Lamp outages	3.1
5	Winter response times	3.2.3
6	Winter treatment times	3.2.3
7	Electronic data logger downloads	3.2.3
8	Emergency response times	3.2.3
9	Road occupation	3.2.2

KPI No.	KPI name	Section
10	Traffic disruption by unprogrammed operations and works	N/A
11	Quality of traffic management	N/A
12a	Achievement of inspection programmes (PIs)	2.2.3
12b	Achievement of inspection programmes (GIs)	2.2.3
13	Internal audits of QMS	4.1
14	PAGplus QMS	4.1
15	Achievement of annual programme	N/A
16	Variation of budgets against agreed programme	N/A
17	Works contracts cost estimates	N/A
18	Works contracts outturn costs	N/A
19	Site operations cost estimates	N/A
20	Operations instructions	N/A
21	Frequency of materials testing	N/A
22	Materials testing	N/A
23	Observations resulting from inspections (ORIs)	N/A
24	Forecasting against actual spend profile	N/A
25	Invoice submissions	N/A
26	Disputed items invoice	N/A
27	Time taken to process planning applications	N/A
28	Submission of reports, programmes and minutes	N/A
29	Answering of correspondence enquiries and complaints	N/A
30	Draft responses and briefing to TS on general Ministerial correspondence	N/A
31	Calls to customer contact system number	N/A
32	Remedial notices issued	4.3
33	Staff turnover	4.3
34	Sickness absence	N/A
35	Working hours	N/A
36	Training	N/A

Figure 41 - KPIs in 3G contract

NW - Scotland TranServ

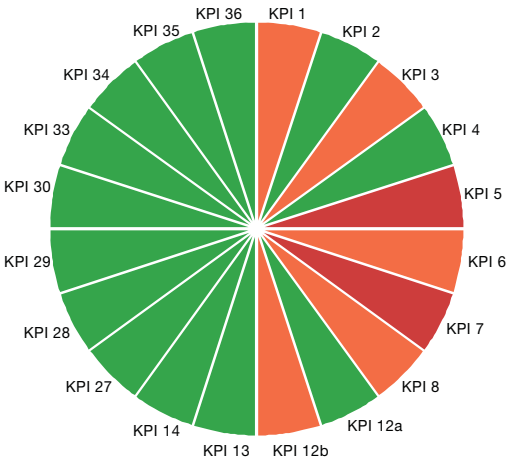

Figure 42 - KPI summary for NW 2012/13

NE - BEAR

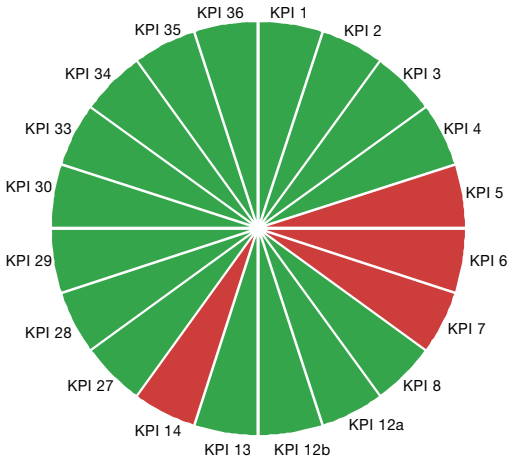

Figure 44 - KPI summary for NE 2012/13

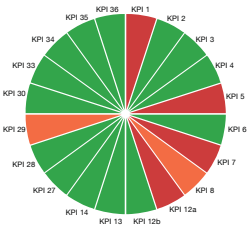

Figure 46- KPI summary for NW 2011/12

Key:

- Target met or exceeded
- Target not met and some improvement required
- Target not met and improvement required

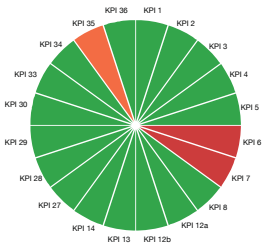

Figure 48 - KPI summary for NE 2011/12

SW - Amey

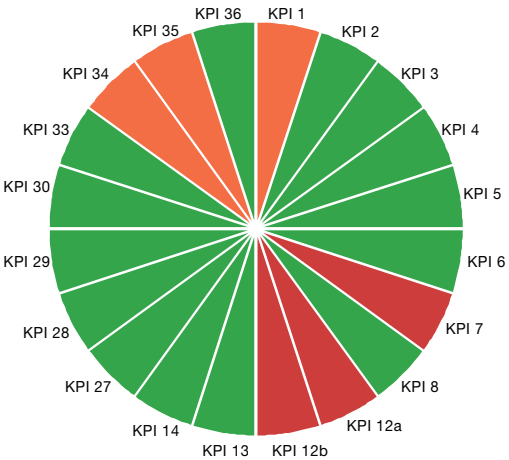

Figure 43 - KPI summary for SW 2012/13

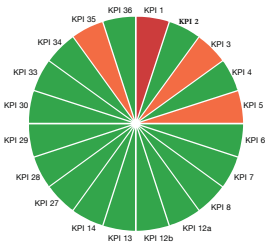

Figure 47 - KPI summary for SW 2011/12

SE - BEAR

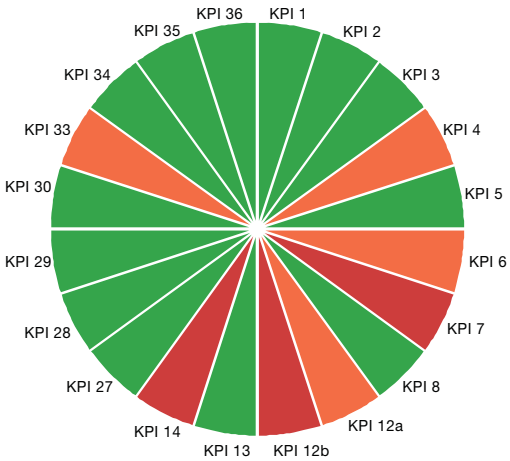

Figure 45 - KPI summary for SE 2012/13

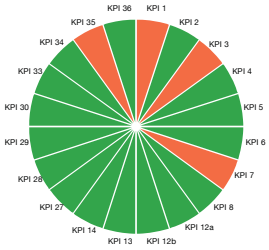

Figure 49- KPI summary for SE 2010/11

Chapter 5
Value of service



Key points

Overall position

- The budget allocation from Transport Scotland of £111.3m was up on 2011/12 by £21.5m (23.9%).
- £20.1m of efficiency savings were delivered by the OCs across the network in 2012/13, with cumulative savings of around £120m over the life of the 3G contracts.

Budget, orders and spend

- OC spend exceeded budget by £6.6m (5.6%). This reduces to an underspend of £1m (1%) after taking into account agreed non budgeted spend.
- The OCs all operated effective management processes. With the exception of SW, all Units had issues with monthly profiling of spend.
- The OCs' performance in managing the bid/order process was good with spend in line or less than orders

Claims and commercial issues

- Performance in the NE and SE continued to be fair. There were no claims under discussion in NW and SW during 2012/13.

Chapter 5
Value of service

5.1 Financial spend

Overall position - all Units

A comparison of spend figures for 2012/13 and 2011/12 is shown in figure 50.

Unit	2012/13	2011/12	%
Budget Allocation	111.3	89.8	23.9
Budget Spent (excl. CPF)	117.9	98.4	19.8
Total Value of Work Done (incl. CPF)	139	115.2	20.7
Split:			
- Operations	127.8	106	20.6
- Works Contracts	11.2	9.2	21.7

Figure 50 - Financial comparison – All Units

A profile of each individual Unit's financial performance is given in figure 51.

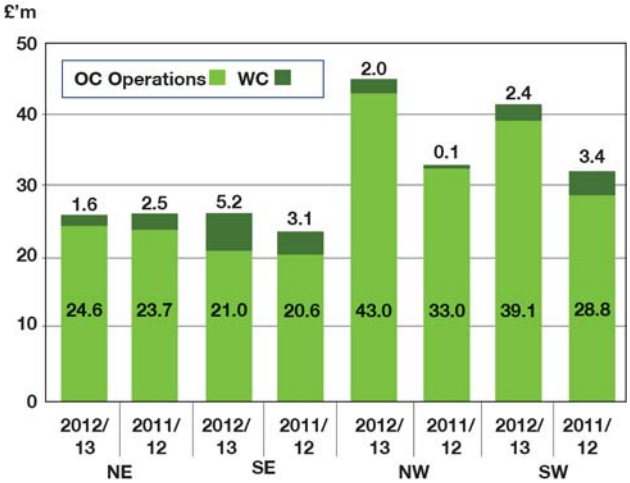

Figure 51 - Spend split by works and operations (including CPF) - all Units

Budgets for 2012/13 were up £21.5m from previous year. The initial budget was £102.1m, however, this increased to £111.3m in February 2013. It should be noted the current level of budget is still below the average over the preceding seven years (see figure 52). Inflationary pressures will also impact on budget levels by reducing the funds available for maintenance.

The 3G contracts have delivered £20.1m of efficiency savings during 2012/13 when compared to the 2G contracts. This figure is comparable to the £17.9m reported in 2011/12 and is attributable to the change in mix of work carried out from the previous year. Cumulative savings of around £120m have been delivered to date over the life of the 3G contracts.

Contract price fluctuations (CPF) for 2012/13 resulted in inflation payments of £21.2m on operations priced at base rates totaling £106.7m. The CPF figure for 2011/12 was less at £16.8m on operations priced at base rates totaling £89.3m. The weighted average CPF applied to base rates during 2012/13 was 31.9% (2011/12: 28.7%) for West Units and 24.8% (2011/12: 21.8%) in East Units.

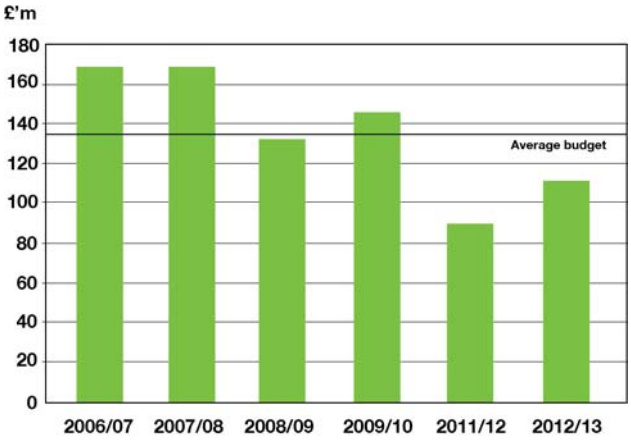

Figure 52 - Comparison of budget allocations

5.2 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 53.

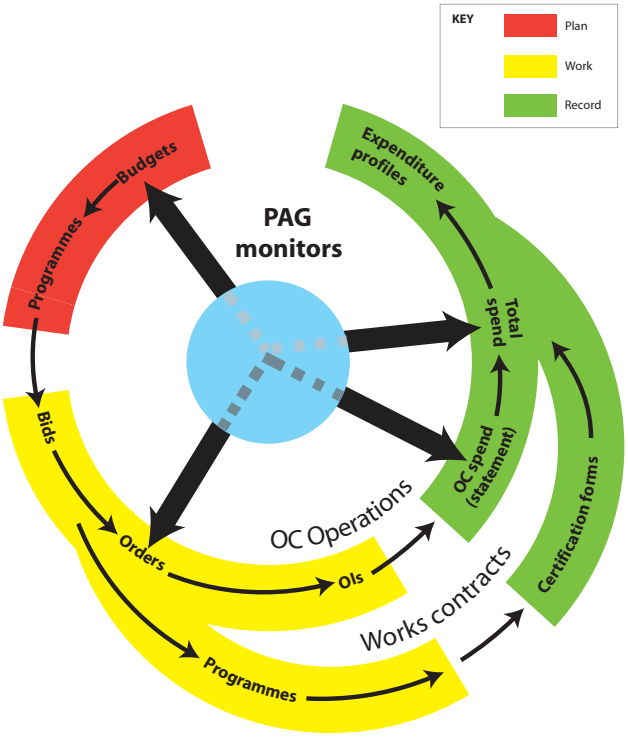

Figure 53 - Financial monitoring process

A comparison of spend against budget for the years 2012/13 and 2011/12 is shown at figure 54.

	2012/13 £m	2011/12 £m
Spend	117.9	98.4
Budgets	111.3	89.8
Variance	6.6	8.6
+/- %	+5.6%	+8.7%

Figure 54 - Spend v Budget (excluding CPF)

Budgetary control

Budgetary control by the OCs is an important management responsibility. It is important that the OCs exercise good budgetary control regardless of funding levels as there may be little scope to revise programmes if there are any significant increases in scheme costs, particularly towards year end. This risk has been recognised by Transport Scotland and is included within the PAGplus audit and monitoring programme.

A comparison of how the OCs managed their budgets is shown in figure 55.

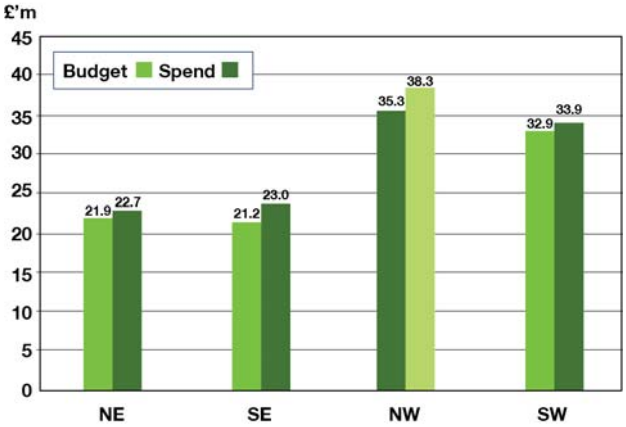

Figure 55 - Unit Budget v Spend (excluding CPF)

During 2011/12 Transport Scotland revised its winter service requirements to be aligned with that required under its 4G Tranche 1 contracts due to start in 2013/14. Budget levels were not revised upward to reflect additional costs for 2012/13 creating an overspend to budget. It should be noted that PAGplus is reviewing additional winter costs to ensure their reasonableness.

Furthermore, budget levels were not increased for the building of A83 Rest and be Thankful diversion route and associated works nor damage to crown property M9 Chartershall Bridge Replacement scheme.

Taking into account the above, spend is less than budget by £1.0m (1%). The comments on budget v spend below are based on spend less costs attributable to the above items.

NE - BEAR ★★★★☆

Overall, performance continued to be good. Spend in NE exceeded budget by £0.8m (4%). Allowing for non allocated budget, spend is in line with budget. However, there were differences at budget category level with routine and cyclic maintenance spend exceeding budget by £436k (4%) offset by under spends of £292k (4%) and £198k (9%) against structural maintenance and bridges respectively. Whilst overall performance of managing the budget was good there were performance issues throughout the year, particularly with accuracy of expenditure profiles.

SE - BEAR ★★★★☆

Performance improved on last year to good, with spend exceeding budget by £1.8m (9%). Allowing for non allocated budget, this reduces to an under spend of £333k (2%). This is attributable primarily to under spends of £314k (5%) and £114k (1%) against structural maintenance and routine and cyclic maintenance respectively offset by bridges spend exceeding budget by £201k (7%). Whilst overall performance of managing the budget was good there were performance issues throughout the year, particularly with accuracy of expenditure profiles.

NW - Scotland TranServ ★★★★☆

Overall performance continued to be good. Scotland TranServ over spent its budget, by £2.9m (8%). Allowing for non allocated budget, spend is in line with budget. However, there were differences at budget category level with bridges and structural maintenance spend exceeding budget by £348k (3%) and £335k (5%) respectively offset by an under spend of £688k (5%) against routine and cyclic maintenance. Whilst overall performance of managing the budget was good there were performance issues throughout the year, particularly with accuracy of expenditure profiles.

SW - Amey ★★★★☆

Performance as with last year was good. Spend in SW was more than budget by £1.1m (3%). Allowing for non allocated budget, this reduces to an under spend of £495k (2%). This is attributable primarily to bridges with an under spend of £862k (9%) following the deferral of the A898 Erskine Bridge Tower Protection scheme until 2013/14. This under spend is partly offset by over spends of £250k (3%) against structural maintenance and £125k (9%) against strategic road safety.

Financial control in delivering operations

Figure 56 shows the bidding for work process:

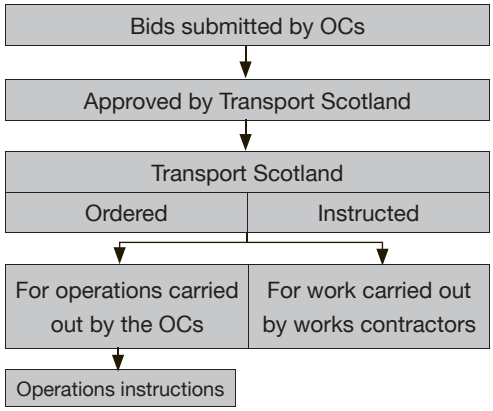

Figure 56 - The bidding for work process

PAGplus continued to 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 minor performance issues with lack of records.

SE - BEAR ★★★★☆

Performance continued to be good in SE. PAGplus monitored the measurement activities during 2012/13 and this highlighted performance at times dipping to fair.

NW - Scotland TranServ ★★★☆☆

Scotland TranServ's performance dipped to fair, with PAGplus monitoring highlighting issues with lack of records. With 3G NW Term Maintenance contract at an end there are a number of material measurement issues needing to be resolved. Discussions are ongoing between Scotland TranServ and Transport Scotland to reach resolution.

As the OC is no longer responsible for the NW, it has no opportunity to improve performance in 2013/14.

SW - Amey ★★★★☆
Overall, Amey continued to operate a good measurement process, with PAGplus' monitoring activities highlighting only minor issues. The 3G SW Term Maintenance contract is also at an end and there is a significant measurement issue still under discussion. High level meetings are taking place between Amey and Transport Scotland to resolve the issue.

Orders v Spend

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

Pressures on this process are inevitable due to 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 was good, although it dipped towards the end of the year with spend 11% less than ordered.

SE - BEAR ★★★★☆
BEAR continued to maintain its good performance during 2012/13, with spend 13% less than ordered.

NW - Scotland TranServ ★★★★☆
Scotland TranServ's performance continued to be good, and whilst this dipped towards the end of 2012/13 spend was in line with orders.

SW - Amey ★★★★☆
Overall, performance continued to be good, with spend in line with orders.

5.3 Claims and commercial issues
Given the wide ranging requirements of the 3G contracts it is inevitable that there will be issues around contract interpretation.

NE - BEAR ★★★☆☆
Performance in resolving claims continued to be fair.

PAGplus will continue to monitor this activity closely during 2013/14.

SE - BEAR ★★★☆☆
BEAR's performance in resolving claims continued to be fair.

PAGplus will continue to monitor this activity closely during 2013/14.

NW - Scotland TranServ N/A
There are currently no claims issues under discussion in NW, however, Scotland TranServ has indicated it may submit a claim in its final statement submission due at the beginning of June 2013.

PAGplus will assist Transport Scotland in closing out commercial issues.

SW - Amey N/A
There are currently no claims issues under discussion in SW, however, Amey has indicated it is considering submitting a claim for an ongoing measurement issue.

PAGplus will assist Transport Scotland in closing out commercial issues.

Performance at a glance

PAGplus has used a 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 areas 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 2011/12 and 2010/11 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 2010/11

	NE	SE	NW	SW
Chapter 2 Network management				
2.1 Network reliability				
2.1.2 Availability of the network to road users	=	=	=	=
2.1.3 Abnormal loads	=	=	=	=
2.1.4 High loads	=	=	=	=
2.2 Network safety				
2.2.1 Safety inspections and patrols	=	=	=	=
2.2.2 Detailed inspections - roads	▲	▼	▼	=
2.2.3 Inspecting structures	=	=	▲	=
2.3 Inventory management				
2.3.1 RMMS	=	=	▲	=
2.3.3 Electrical assets	▲	=	▲	=
2.4 Development control duties	=	=	▲	▲
2.5 Sustainability	▼	▼	=	=
2.6 Customer contact service				

Performance at a glance

	NE	SE	NW	SW
Chapter 3 Network maintenance				
3.1 Cyclic maintenance				
Grass cutting	▼	▼	=	=
Weed control	=	▼	▲	▼
Controlling vegetation	▲	=	▼	=
Sweeping, cleansing and litter	▲	▼	N/A	=
Signing, signals, road markings and studs	▲	▼	▲	=
Lighting	=	▼	▼	=
Safety fences, barriers and fencing	=	=	=	=
Drainage, gullies and ironwork	▼	=	▲	▼
Structures	▼	▼	=	▲
3.2 Reactive maintenance				
3.2.1 Repair of category 1 defects	=	=	=	▲
3.2.2 Emergencies	=	=	=	=
3.2.3 Winter service				
Pre-winter exercises	N/A	N/A	N/A	N/A
Winter readiness	=	=	=	=
Winter decision making	=	▼	▼	=
KPI for winter service response times	▼	=	▼	=
KPI for winter service treatment times	▼	▼	▼	=
KPI for electronic data logger downloads	▼	▼	=	=
Management of salt stocks	=	=	=	=
Road closures	N/A	N/A	N/A	N/A
3.3 Planned maintenance				
3.3.1 Roads	=	▼	=	▲
3.3.2 Structures	▼	▼	=	=
3.4 Works contracts				
Tender documents	=	=		
Supervision	=	=		▲
3.5 Improving Safety				
3.4.1 Strategic road safety schemes	=	▼	=	▲
3.4.2 Minor improvement schemes	=	=	=	=

Performance at a glance

	NE	SE	NW	SW
Chapter 4 Quality of service				
4.1 Management systems				
Quality management - maintaining compliance	=	=	=	=
Quality management - rectifying non-compliance (PAGplus)	▼	▼	=	=
Quality management - rectifying non-compliance (Internal)	▲	▲	▲	=
Health and safety management	▼	▲	▲	▼
Environmental management	▼	▼	=	=
4.2 Information systems				
Contract control and management system	=	=	▲	=
4.3 Continuous improvement	=	▼	▼	▼
Chapter 5 Value of service				
5.2 Budgets, orders and spend				
Budgetary control	=	=	=	=
Financial control in delivering operations	=	=	▼	=
Orders v Spend	=	=	=	=
5.3 Claims and commercial issues	=	=	N/A	N/A

Glossary of Main Terms

3G contracts
Third generation contracts which were tendered in two phases. NW and SW were tendered first and 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.

CEEQUAL
An evidence-based sustainability assessment, rating and awards scheme for civil engineering, infrastructure, landscaping and the public realm, indicating the achievement of high environmental and social performance.

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 PAG-plus, access to information about how operations and works contracts are being managed and where money is being spent.

Contract price fluctuation factor (CPF)
Inflation adjustments to the OCs' tendered rates and prices.

Financial year
The period between 1 April 2012 and 31 March 2013..

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.

Moving cursor programme (MCP)
This analyses accident data across the network to identify accident cluster sites.

Network
The system of motorways and trunk roads in Scotland. The network is 3,218km 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 contracts. 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 commits a default. 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

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 enables the collection and distribution of real-time traffic information relating to incidents and events currently taking place on the Scottish trunk road network.

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
3G	Third generation
4G	Fourth generation
BS	British Standard
CCMS	Contract control and management system
CEEQUAL	Civil engineering environmental quality assessment and award scheme
CMS	Carbon management system
CPF	Contract price fluctuation
CPF	Contract price fluctuation
CQMSM	Contract quality management systems manager
DBFO	Design, build, finance and operate contract
EMS	Environmental management system
EN	European standard of the CEN
H&S	Health and safety
HSE	Health and safety executive
IER	Initial environmental review
ISO	International Standards Organisation
KPI	Key performance indicators
MSD	Maintenance scheme datasheet
NE	North East
NNC	Notice of non-conformance
NW	North West
OC	Operating company
OHSAS	Occupational health and safety assessment series
ORI	Observation resulting from inspection
PAGplus	Performance audit group
QMS	Quality management system
RIDDOR	Reporting of injuries, diseases and dangerous occurrences regulations
RMMS	Routine maintenance management system
SE	South East
SEPA	Scottish Environment Protection Agency
SMS	Structures management system
SNH	Scottish Natural Heritage
SOI	Statement of Intent
SRWR	Scottish road works register
SW	South West
TRISS	Trunk road incident support service
TRL	Transport Research Laboratory
VMS	Variable message sign

Useful websites

PAGplus
www.performanceauditgroup.co.uk

Halcrow a CH2M HILL Company
www.halcrow.com

CH2MHILL
www.ch2m.com

PricewaterhouseCoopers
www.pwc.co.uk

URS
www.ursglobal.com

TRL
www.trl.co.uk

Transport Scotland
www.transportscotland.gov.uk

Traffic Scotland
www.trafficscotland.org

Scottish Road Works Commissioner
www.roadworksscotland.gov.uk

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

PAGplus
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Halcrow Group Ltd certifications

BS EN ISO 9001: 2008
BS EN ISO 14001: 2004
OHSAS 18001:2007