



Performance Audit Group Annual Report 2021/22

Performance Audit Group
Transport Scotland



making the **difference**

Foreword



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The Performance Audit Group (PAG) supplies services to Transport Scotland (TS) to audit, monitor and report on the performance of the Operating Companies (OCs) who operate and maintain the Scottish trunk road network.

PAG principally seeks to support Transport Scotland and assist Operating Companies deliver their contract obligations, playing our part in continuously improving the operation and maintenance of the trunk roads and making best use of public money. Our multi-disciplinary team is made up of personnel from Turner & Townsend supplying project management and cost management disciplines, Waterman and WSP supplying engineering competences including a range of technical specialists in various fields, and PwC bringing accountancy services.

This report is the first since being reappointed to the PAG contract in October 2021 and summarises the extensive work carried out by the PAG team throughout the 2021/22 annual period.

Delivering best value for the road users and taxpayers is the core objective of the PAG commission and we are extremely proud to be supporting Transport Scotland on this key service.

Our collective focus is to assist to deliver:

- Safe and reliable **journeys**;
- Continuous improvement in the quality of service for trunk road **customers**;
- Value for **money**;
- Sustainable value to all stakeholders.

In addition to the audit and monitoring services undertaken by the PAG team Turner & Townsend also provides Contract Services to Transport Scotland assisting in re-procurement of Operating Companies via Transport Scotland's new Network Management Contracts.

Our approach to the commission is to drive improvements through collaboration, independent constructive challenge and continuous improvement with the focus on Operating Company delivery being at the forefront of all reviews and reporting.

We are taking great pride in playing our part in delivering a great road user experience and we trust you find our latest report clear, comprehensive and informative.

Facts and Figures

Overview



Total length of road
3,135 km



Total number of structures
4,398

Renewing



755km / 9% of the network
of new road surfacing lanes



37km of safety fence installed/renewed



704 road lights upgraded to LED



2km of carriageway drainage constructed/renewed



3km of filter drain constructed




10km of filter stone replaced



265 bridges and structures schemes delivered

Facts and Figures

Maintaining

 **21,031** Category 1 defects identified and repaired


This included:

 **10,256**
potholes

 **1,557**
items of electrical defects

 **3,854**
items of debris removed


 **1,619**
road signs/road marking defects

 **1,908**
items of broken or blocked drainage

 **844**
safety fence defects

 **£122.9m**
spent on road pavement surfacing
and deeper inlay schemes

 **£26.6m**
spent on renewal/replacement of various
non-pavement trunk road assets
(safety barriers, drainage schemes,
road markings and signage)

 **£84.8m**
spent on maintenance of highway bridges and
structures (such as renewing waterproofing
layers to protect the structure, renewing worn
expansion joints)

Facts and Figures

Maintaining (cont.)



£5.7m

spent on network roads cyclic maintenance including 91,304 gullies, 67,444 Manholes and Catchpits, 122,116 Traffic signs, and 22 million m² of grass



£3.6m

spent on landscaping and vegetation maintenance including tree felling, branch removal, scrub and vegetation clearance



£1.1m

spent on structures cyclic maintenance including cleaning drainage, bridge joints, clearing vegetation and graffiti, checking safety fences

Operating



126,346 tonnes

of salt spread in winter season



21,804 incidents

incidents responded to on the trunk road network

PAG



54

audits delivered



198

monitoring reviews completed



109

operations sites visited

Executive Summary

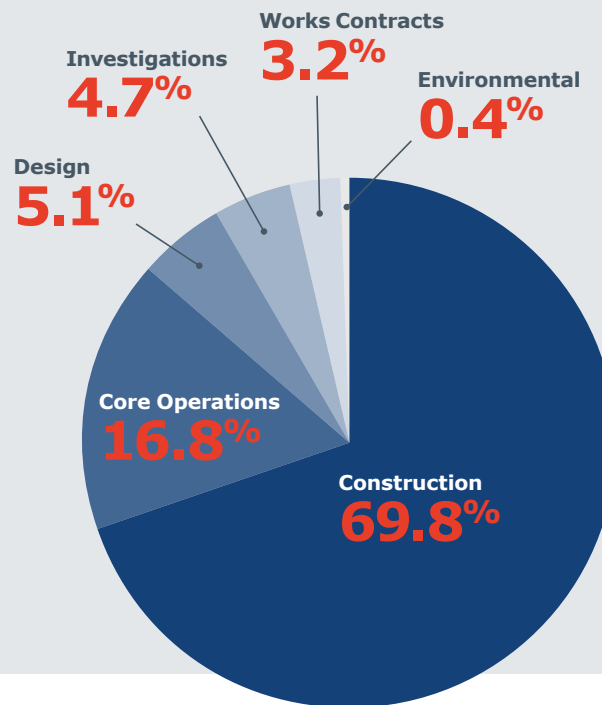
Following on from the major impacts felt in the previous year due to Covid-19, 2021/22 was a return to more normal operations for Operating Companies. In this annual period the two South units (SW & SE), in their 2nd year of an 8 year term, operated the Network Management Contract, whilst the two North units continued the 4th Generation term maintenance contracts which are due to end in August 2022.

Performance Audit Group (PAG) delivered audit, monitoring and reporting on the performance of the Operating Companies in a number of areas to provide representative ratings on performance. Throughout this report, ratings are based either on empirical bandings of contractual Performance Indicator percentages, or as a rating on the Quality of operations observed by PAG. The bandings between ratings vary depending on area of delivery.

Finance

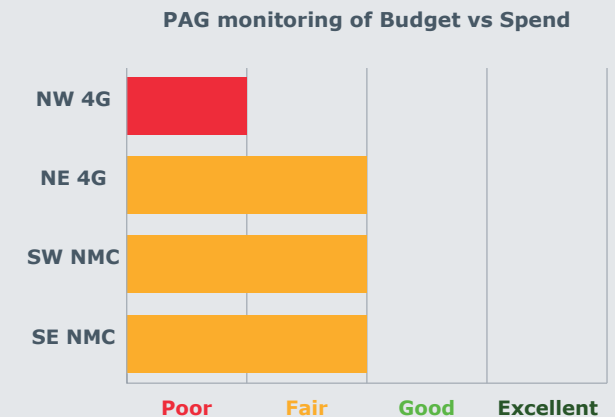
The budget for **2021/22** was **£320.5m** an increase of **£59.3m** from the previous year (£261.2m)

Budget spend split was:



Budgetary Control

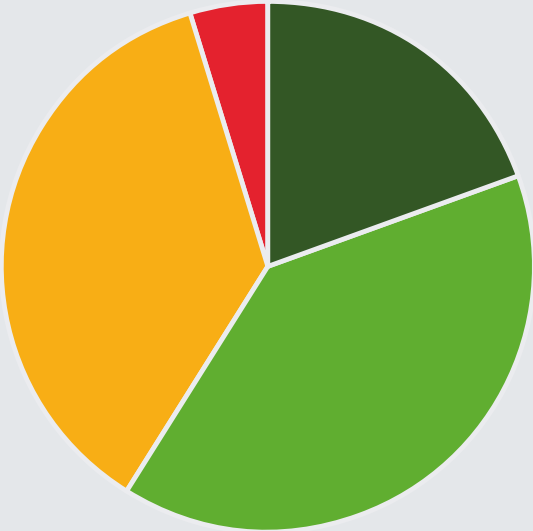
PAG monitoring of budget v spend across the annual period is shown below.



Executive Summary

Network Maintenance

Overall PAG found the Operating Companies broadly performed well in 2021/22:



Technical Performance Quality Ratings

66 Technical Performance Quality Ratings:

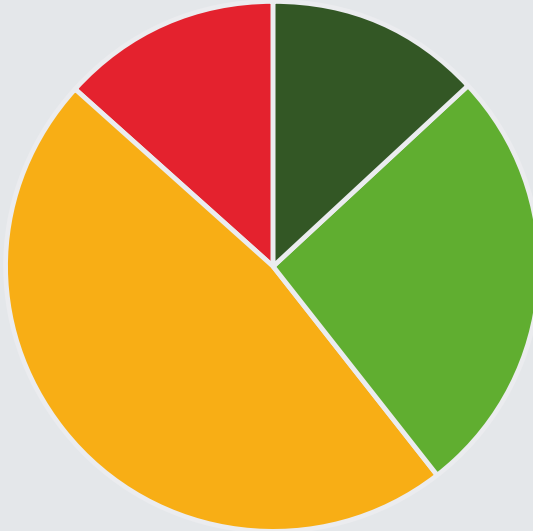
- 13 Excellent**
- 26 Good**
- 24 Fair**
- 3 Poor**



Contract Performance Quality Ratings

69 Contract Performance Indicators:

- 25 Excellent**
- 21 Good**
- 6 Fair**
- 17 Poor**



Financial Performance Quality Ratings

38 Financial Performance Quality Ratings:

- 5 Excellent**
- 10 Good**
- 18 Fair**
- 5 Poor**

Executive Summary

A very good performance was noted in the delivery of maintenance schemes. Taking up 88% of the annual budget schemes to replace life expired assets form the mainstay of the term maintenance contracts and site visits found operations delivery was to high quality meeting contractual specifications.

Cyclic maintenance on the road network, such as grass cutting and cleansing of existing drainage systems, was generally to a good standard, however Structures cyclic maintenance was found to be poor with issues noted in all units with work not undertaken to the required standard.

Safety Inspections were generally undertaken to the required frequency, with Category 1 defects generally repaired within contractual timescales. PAG quality ratings were reduced due to the number of road marking Category 1 defects that PAG noted in route tours that Operating Companies were not identifying.

Detailed/Comprehensive inspections reviews generally found the quality of the data recorded to be complete and accurate. In the North units a marked improvement from previous years performance was noted as the year progressed, however for all units further improvements are needed as performance remains below an acceptable level to ensure this annual inspection of asset condition is up to date and delivered each year as required.

Winter Service was delivered throughout to the requirements of the contract with treatments generally appropriate to the forecast conditions. However, there were issues noted in all units with the population of records.

Journey Time Reliability was delivered well. Audits found a good performance in the contractual requirements in ensuring impacts on the smooth operation of the trunk road were kept to a minimum through liaison with third parties and the set up and operation of traffic management on the network.

Performance in Environmental and Sustainability requirements was good with the many sites visited by PAG demonstrating good environmental safeguard measures in place. Some thought needs to be given to secondary containment of hazardous liquids on site in the event of spillage as that was one area where a recurring theme was noted.

A key issue in overall performance throughout different areas of delivery was in the population of records. This key contractual requirement is often not populated to the requirements of the contact. The works may be undertaken on the ground, but the population of records to evidence works delivered or testing records to evidence that the quality of constructed assets meets the required specification are often not in place. PAG raised NNCs for poor record population in areas of measurement, Health & Safety (CDM), and winter service.

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Introduction

The Performance Audit Group (PAG) contract undertakes auditing and monitoring of Operating Company performance to check compliance in delivering Transport Scotland's (TS) term contracts for management and maintenance of the Scottish trunk road network.

A key part of the PAG contract is to work with Operating Companies if areas are identified to be in need of improvement. Audit and monitoring programmes are prepared based on areas of delivery risk identified via the PAG Risk Register. Reports are written, with input from the Operating Company, on performance. If required, PAG will make recommendations for actions that can be taken for improvement. If performance is noted to not meet the contractual specification, then PAG works with the Operating Companies by raising Notices of Non-Conformance which can then be monitored through to closure in the Operating Company's Quality Management System. If any area continues to fall below the required standard, then Transport Scotland may raise a Remedial Notice. Financial deductions may also be applied if appropriate.

In the 2021/22 annual period there were four Term Maintenance contracts operated by two companies. The 4th Generation (4G) of the Term Maintenance contracts came to an end in the South units in 2020, changing to the new Network Management Contract (NMC), with the North units set to make that transition in August 2022. There were therefore two different types of contract in operation in the 2021/22 reporting period.

- **NW 4G** – BEAR Scotland Ltd
- **SW NMC** – Amey OW Ltd
- **NE 4G** – BEAR Scotland Ltd
- **SE NMC** – BEAR Scotland Ltd

Report Structure

This report has been structured around the objectives of Transport Scotland's 'Scottish Trunk Road Network Asset Management Strategy – November 2018'. A separate chapter covers each objective. The areas of contract delivery included in each chapter aligns with mapping included in the Performance Indicators of the NMC contract.

The Performance Audit Group contract is included in Transport Scotland's Network Asset Management Strategy forming a central part in monitoring performance of Operating Companies which in turn is part of the strategy to achieving these objectives.

Introduction

Performance Ratings

PAG utilises a risk-based approach to assessing contract performance. A risk register, populated with the key risks to delivery, is updated quarterly to keep it focussed on current issues. Audit and monitoring programmes are developed from this register along with certain core activities, all of which are subject to amendment as the year progresses depending on changing circumstances.

From the results of PAG reporting Operating Companies are given ratings from Excellent, through Good, Fair and Poor. PAG guidance sets out performance requirements to achieve each rating. Although it varies from measure to measure the requirement broadly requires above 95% compliance to achieve Excellent, whilst below 85% is rated as Poor.

These are colour coded in the tables throughout this report:



There are two key areas in which these ratings are applied:

- **Performance Indicators:** the term maintenance contracts contain Performance Indicators (PI) which are generally numerical percentages measured via either data entered into the Integrated Roads Information System (IRIS), or from data held by the Operating Companies. These are generally quantitative in nature based on programme completion with no inherent measure of the quality of operations. The bandings between Excellent/Good/Fair/Poor for the various Performance Indicators vary depending on the PI in question.
- **Quality of Operations:** the audit and monitoring programmes undertaken by PAG focus on the quality of operations with ratings based on performance observed.

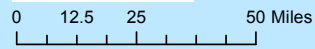
In both these areas a high standard of performance is required to achieve the higher bandings. Ratings in each section throughout the report are an average of all aspects of an Operating Company's performance throughout the annual period. Ratings are amalgamated from individual reviews of operations undertaken by PAG, for any areas in which a Notice of Non-Conformance (NNC) or Remedial Notice (RN) is raised, and for Operating Company response to areas highlighted by PAG in which quality could be improved.

Scottish Trunk Road Map



Trunk Road Network

- North East Unit
- South West Unit
- South East Unit
- North West Unit
- Aberdeen Roads Ltd
- M6 DBFO
- M77 DBFO
- M80 DBFO
- M8DBFO



© Crown copyright and database right (2019). All rights reserved. Ordnance Survey Licence number 100046668. The extent of the trunk road network is shown in this map, therefore Orkney and Shetland are not included.

“ To provide a road network that is safe for all users, seeking to continually reduce risk and casualties.

There are a range of activities undertaken by Operating Companies which are essential to keeping the trunk road network operating safely. Tables 1 to 3 shows PAG’s quality performance ratings for the various areas reviewed along with the average value of the relevant contractual Performance Indicators.

Safety Inspections

Route tours identified the majority of Category 1 defects and repair timescales were generally adhered to by Operating Companies. Overall performance was rated as Fair though as PAG did raise Observations Resulting from Inspections (ORI) where defects had been missed. Category 1 Road Marking defects were also noted as not being identified for repair by Safety Patrols. Although this is linked to the Condition chapter and requirements for an annual mechanical survey of road marking from which a programme of defect categorisation identification and repair should keep road markings in good condition, that does not remove the need for Safety Inspections to still identify Category 1 defects from weekly safety inspections and then repair within Category 1 repair timescales.

Contractual requirements for an identification assessment of structures requiring additional safety inspections were also not being complied with in SW & SE for which an NNC was raised in Aug 2021 and remained open at March 2022.

Performance Measure	NE	NW	SE	SW
Safety Inspections (4G) / Routine Monitoring Inspections (NMC)				
PI 05 Safety Inspections and Patrols	97.9%	96.8%	95.6%	95.6%
PI 02 (NMC) Repair of Structures Category 1 Safety Defects			66.7%	75.0%
PI 03 Repair of Category 1 Safety Defects (except Structures)	95.7%	95.9%	93.0%	92.0%
MI 01 (4G) / PI 11 (NMC) Well Lit Network	96.0%	93.5%	89.2%	100.0%

Table 1

Safety

Category 1 defect Repair

Performance Indicator PI 05 percentage shows the extent of the network that received the number of Safety Patrols required over the annual period. Whereas PIs 02 and 03 indicate performance in repairing Category 1 defects in the required timescales. Low performance is noted in PI 02 (an NMC contract measure only) however PAG notes the number of Structures Category 1 defect repairs due in a month are generally very low with only one or two repairs required in a typical month. This can mean that missing the timescale for one repair when only two are required can result in a PI of 50% for that month.

NNCs raised in the previous annual period in SE & SW for PI 03 Category 1 repair timescales being below threshold were subsequently closed in Sept/Oct 21.

PAG also monitors the number of defects in the backlog, i.e. the number of Category 1 defects that have gone beyond their contractual timescales for repair. Figure 1 shows the number of defects in the backlog at the start of the annual period whilst Figure 2 shows the number at the end of the period.

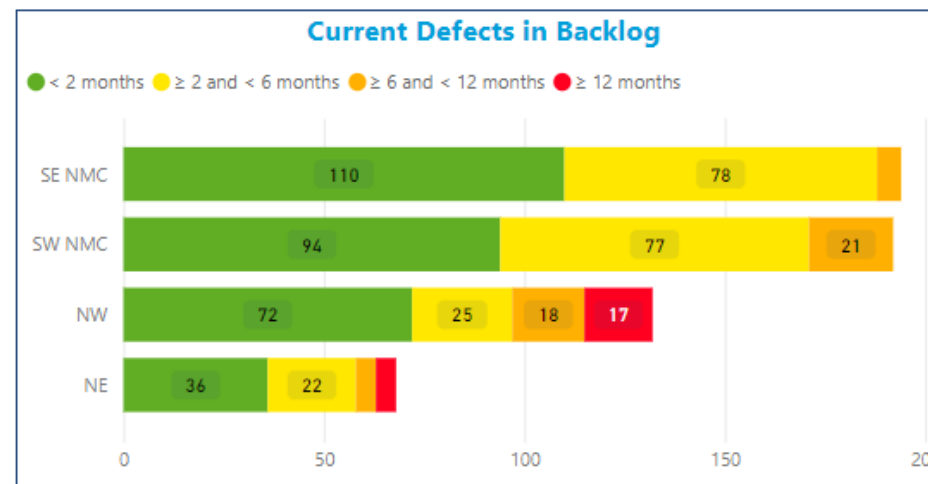


Figure 1: As April 2021

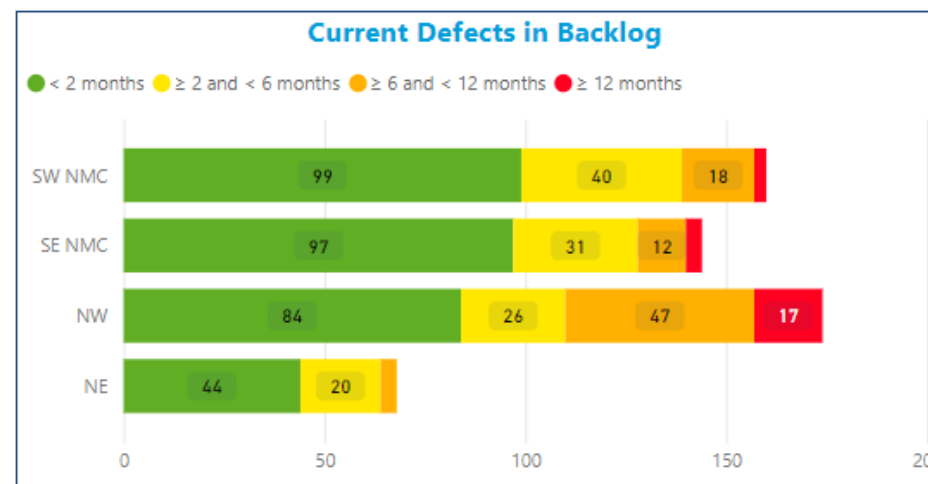


Figure 2: As March 2022

Safety

Winter Service

Winter Service reviews found that Operating Companies were for the most part delivering appropriate precautionary treatments for the weather forecast. However, there were issues in the population of records which often found many records not in place or information missing on the records that were in place. NNCs were raised in NW, SE & SW for winter records not being fully in place which were all subsequently closed.

Performance Measure	NE	NW	SE	SW
Winter Service				
PI 11 (4G) / MI 22 (NMC) Winter Service Treatments	99.4%	98.1%	65.8%	92.1%
MI 20 (4G) / PI 13 (NMC) Weather Forecast Accuracy	95.0%	96.0%	-4.6%	-34.0%
PI 21 (NMC) Salt Spread			98.7%	100.0%
PI 12 (NMC) Winter Treatment Efficiency			0.0	13.8

Table 2

Incident Response

For Incident Response Operating Companies were generally meeting response times to attend and assist at incidents on the network, however reviews did again find issues on record keeping with all required records not always fully in place.

In SW there were issues noted in the secondary response equipment not always meeting targets for attendance within contractual timescales for which an NNC was raised and remains open. NNCs were also raised in NE for incorrect recording of incidents and not having all records in place, and in SE for not having available all required equipment in accordance with the contract, both of which were quickly closed.

Performance Measure	NE	NW	SE	SW
Incident Response				
PI 04 (4G) / PI 27 (NMC) Incident Response	96.5%	97.9%	91.6%	95.7%

Table 3

Health & Safety

PAG visited 109 sites over the course of the annual period. A key check was on the Health and Safety measures taken on site, to protect both the workforce and the nearby travelling public. In general, all Operating Companies were found to perform highly in this area (Table 4).

NNCs were raised in all units for issues noted in not uploading CDM documentation to IRIS in the contractual timescales all of which have subsequently been closed.

Performance Measure	NE	NW	SE	SW
Health & Safety				

Table 4

Case Study: BEAR NW

A82 Kenneth Street/Tomnahurich Street Junction, Traffic Signals Upgrade

The Kenneth Street/Tomnahurich Street Junction improvements represent an investment of over £200,000 to improve pedestrian facilities at this busy junction in Inverness. Previously, the junction did not have full pedestrian phases, which resulted in pedestrians having to cross some roads without the benefit of traffic signal control.

The works involved the installation of dedicated crossing points across all 4 arms of the junction and included the complete refurbishment of the traffic signal system including all underground ducting and a new traffic signal controller.



A82 improved pedestrian facility

All crossings have been upgraded to meet the Equalities Act regulations and technology increasing the crossing time has been installed which allows more time to cross the road.

To maximise efficiency of the junction for all users there are separate crossing phases on specific legs and the traffic signal sequence has also been optimised to minimise delays for users. The works have been subsequently well received by the local community and ongoing refinements to the operation will continue to ensure the junction continues to be safe and efficient.

The project team produced a Newsletter every two months to keep the community updated on scheme progress. A user engagement meeting was also held with a local mobility group where designers had an insight into issues that various local users experience.

Condition

“ To measure and maintain our trunk road assets in a condition that meets the needs of our users but which is also affordable.

The Scottish trunk road network has a very high number of assets of various types including road pavements, drainage networks, barriers & fences and electrical installations such as streetlights and sign lighting.

Key to keeping this inventory of assets in good condition is regular maintenance. This is done via a combination of maintenance schemes, where assets reaching end of life are identified for renewal with schemes raised to replace the materials, and cyclic maintenance undertaken on assets that benefit from regular cleaning such as drainage systems, channel sweeping, grass cutting, landscaping and sign cleaning.

A key part of ensuring programmes of maintenance schemes are targeted at the assets most in need of renewal, and to help identify the level of budget requirement to ensure all network needs are met, is the detailed inspections that are undertaken on an annual basis. The frequency of inspection of some assets varies depending on asset type, for example structures General and Principal Inspections follow the timescales set out in the national standards in the Design Manual for Roads and Bridges.

Schemes identified for repair or replacement are by far the biggest part of the budget spend in an annual period, typically accounting for 88% of

budget spend. By contrast cyclic maintenance activities account for only 2% of overall spend with Network Operations (winter maintenance and Incident Response) accounting for 6%.

Maintenance Schemes

PAG visited 109 sites over the course of the annual period covering many different types of operation to assess the quality of construction. The majority of sites visited were for schemes to replace life expired assets such as carriageway resurfacing/reconstruction, Vehicle Restraint System (VRS) replacements/installations, drainage improvements, filter drain renewal, footway resurfacing, sign and lighting renewal, layby improvements, road lining and road stud replacement. For structures, bridge refurbishment and joint replacement sites were visited in the SW unit.

The quality of workmanship at each site was generally excellent in all units. Sites were tidy and well maintained and the works were undertaken to the required specification.

It is noted that a Remedial Notice was issued by Transport Scotland to the NE unit for failure to supply contractually required cost report and supporting information in relation to a structures scheme. This was closed three months after issue.

Performance Measure	NE	NW	SE	SW
Network Maintenance Schemes	Green	Green	Green	Green
Structures Maintenance Schemes	Red	Grey	Grey	Green

Table 5

Condition



A702 Nine Mile Burn footpath construction



A90 North of Brechin Road marking renewal



A82 Kenneth Street, Inverness pedestrian crossing improvements



A835 carriageway resurfacing

Condition

Cyclic Maintenance

PAG completes Route Tours of the entire trunk road network every month. A programme of inspection on these route tours covers various aspects of cyclic maintenance to assess the general performance over the annual period. This covers areas such as litter, cleanliness of signs, instances of flooding, grass cutting, weed control, soft landscaping, channel sweeping and cleanliness of laybys. Sites are also visited on foot for a closer look at the quality of the works as a check that the full specification requirement was being met. Sites visited included weather stations, traffic signals, electrical installations, and cleansing of gullies, manholes and catchpits.

In general, the quality of cyclic maintenance operations on the road network were undertaken to a good standard although there were issues found in the SW, SE and NW units for gully cleaning where gullies were not always fully cleaned in accordance with the contract. However, the contractual Performance Indicator, which is a measure of the frequency of maintenance, is below an acceptable level. In the north units this started the year around the 85% mark but fell towards the latter half of the year to the 70% mark. SW and SE units started the year around the 40% mark increasing as the year progressed to the 65% mark.

The quality of the cyclic maintenance of Structures was found to be less satisfactory. NE and NW units were Fair overall with many areas found not fully compliant to requirements. SW and SE units were Poor, workmanship

was not satisfactory, and many areas were found not to have received maintenance. NNCs were raised in NE and SE in the reporting period whilst SW had an NNC issued in the previous year still open. All NNCs in NE and SE have subsequently been closed however the SW unit was escalated to a Remedial Notice. PAG will continue to keep a close review of performance in this area.

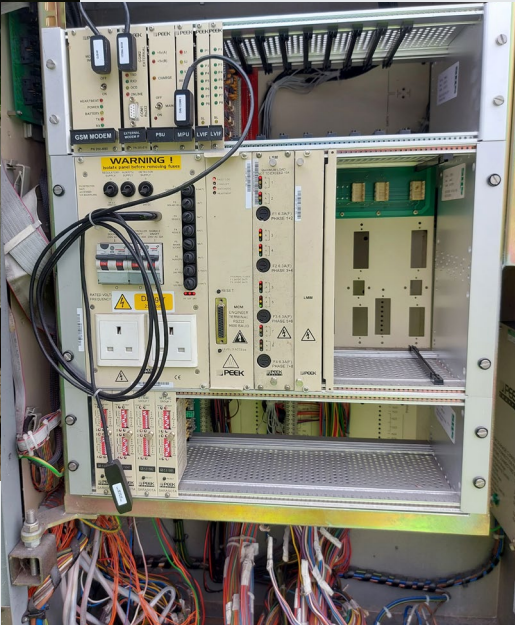
Performance Measure	NE	NW	SE	SW
Network Cyclic maintenance				
PI 07 Cyclic Maintenance	76.4%	80.3%	50.4%	56.5%
Structures Cyclic Maintenance				
PI 10 Structures Cyclic Maintenance	100.0%	98.2%	96.6%	88.5%

Table 6

Condition



M8 high mast lighting cyclic maintenance



Kincardine Bridge traffic signal electrical cabinets inspection and maintenance



A68 North of Pathead gully and manhole cleansing



02/11/2021

Condition

Inspections

Detailed inspections of all assets are generally undertaken annually, although there are differing periods for some asset types. This inspection includes a review of the assets condition and providing a Condition Rating. It is also an annual validation of the asset as recorded in Transport Scotland's asset database that it matches exactly the assets on the ground and that additional asset information such as construction materials and condition rating are also captured and updated on an annual basis.

These inspections and the data collected is of key importance to Transport Scotland to allow full understanding of the number of assets they have on the network, their condition and expected remaining life. This assists in setting required levels of maintenance budget for future years by providing the necessary data to make forward planning decisions.

It also provides the Operating Company with the information they need to target maintenance schemes where it is required and to allocate their annual budget to the appropriate asset types.

PAG reviewed performance in inspection and recording of defects in weather stations, traffic signals, road markings during the hours of darkness and asset condition ratings. Overall PAG field work found the asset database to be fully populated and accurate. SE was found to perform well in the quality of work undertaken, but some issues were noted in the SW. NW and NE which were rated as Fair overall, general asset information was populated correctly but issues were noted on the weather station and road marking reviews.

The contractual Performance Indicator which measures the frequency of Detailed/Comprehensive Inspections is low for all units. This indicates that not all assets are receiving inspections within the timescales set out in the contract. In NW a Remedial Notice raised by Transport Scotland in 2019 on undertaking Detailed Inspections at the required frequency remains open, however Remedial Notice's in NW and NE on recording condition ratings have been closed following a marked improvement towards the latter half of the annual period.

Performance Measure	NE	NW	SE	SW
Detailed Inspections (4G) / Comprehensive Inspections (NMC)				
PI 06 Detailed Inspections (4G) / Comprehensive Inspections (NMC)	85.1%	70.3%	79.4%	77.7%
PI 21 (4G) Recording Inventory Condition Rating	75.4%	75.2%		
Principal and General Inspections				
PI 08 Structures Principal Inspections	99.8%	90.6%	96.9%	84.2%
PI 09 Structures General Inspections	99.4%	98.8%	99.3%	98.8%

Table 7

Condition

The Remedial Notices raised by Transport Scotland in 2019 with regards to inspection and maintenance requirements of road markings remain open in NE and NW.

With regards to Structures, new standards for the qualification requirements of personnel undertaking inspections of structures were introduced in 2016. All Operating Companies were noted to be having continuing issues in meeting the requirements for all inspectors achieving the accreditation required in the Bridge Inspector Certification Scheme (BICS). This continues to be managed by Transport Scotland. Whilst there have been issues in the accreditation body it is felt that Operating Companies could have been doing more to ensure they had the required levels of accreditation for each of the inspectors in their units. An NNC raised in SE unit in the previous reporting period for not meeting BICS requirements remains open.

SW was issued with an NNC for not completing the PI programme for the 2020 calendar year. This was escalated to Remedial Notice after which action was undertaken by the Operating Company and the Remedial Notice closed.



A720 Aqueduct – Post Tensioning system investigation

Resilience and Prosperity

“ To provide consistent, predictable and reliable journeys for the movement of people and goods, and to minimise disruption caused by roadworks, unplanned incidents and severe weather conditions.

Journey Time Reliability Coordinator

The contract contains specific requirements for ensuring a free flowing a network as possible via the role of the Journey Time Reliability Coordinator (JTRC). Audits were undertaken of the JTRC role which found the role was generally being delivered to the requirements of the contract.

Whilst undertaking monthly route tours PAG reviews the quality of any traffic management installations that are encountered. These were generally found to be well laid out and maintained providing the least possible impact on travel times as essential maintenance operations are undertaken.

Disruption Risk Management Plan

A key element of ensuring a free flowing network is advance preparation and plans in place for areas where disruption might be anticipated in the event of extreme weather. The Disruption Risk Management Plan (DRMP) requirements cover a wide range of areas with plans required to be in place setting out the mitigation to ensure minimal impact. Audits found DRMPs were well set out and managed. However, there were issues noted on the uploading of records not always being within the timescales required.

Structures Risk Programmes

Structures Risk Programmes involve the inspection, monitoring and maintenance of a defined list of structures with specific attributes which are particularly at risk of developing issues which may reduce their load carrying capacity and hence be a pinch point that impacts on Journey Time Reliability. PAG also undertook reviews of various other structures maintenance requirements.

Whilst no Risk Programme reviews were undertaken by PAG for this annual period, a Fair rating is noted in the NE unit as it was issued with an NNC as various risk management activities to manage post-tensioned concrete bridges were not being undertaken.

Under the title of Structures Investigations PAG undertook reviews on various aspects of structures maintenance. In NE and NW units, reviews of the management of structures outwith the unit boundary showed a good performance. Reviews were also undertaken in the NW unit on maintenance of Swing Bridges which found many areas not being undertaken in accordance with the contract, with an NNC issued just after the end of this annual period. A review of O&M manuals in the SW and NE units found a good performance overall, although an NNC was issued to the NE unit for amending a manual without prior approval by Transport Scotland.

Resilience and Prosperity

In SE unit various reviews were undertaken in differing aspects of monitoring of the Forth Bridge and Queensferry Crossings in which performance was generally fair as there were areas identified that needed improvement. NNCs were raised with most subsequently closed although one NNC remains open in relation to reviews which were required to be undertaken in handover documentation of the Forth Road Bridge which were not completed.

Performance Measure	NE	NW	SE	SW
JTRC and Traffic Management	Dark Green	Dark Green	Dark Green	Dark Green
DRMP	Light Blue	Light Green	Orange	Light Green
Structures Risk Programmes	Orange	Light Blue	Light Blue	Light Blue
Structures Investigations	Light Green	Orange	Orange	Light Green

Table 8

Case Study: BEAR NE

A96 Bogbain embankment/ditch improvement

In April 2021, an open ditch running alongside the A96 at Bogbain was subject to scour erosion which led to the collapse of a short section of the embankment. Due to the proximity of the failure to the A96, temporary traffic lights were installed to maintain a safety zone between road users and the eroded embankment.



Proximity of failure to A96

The existing open ditch ran adjacent to the A96 before entering a pipe that eventually leads to the drainage outfall. Visual and geotechnical checks were carried out and following discussion with Transport Scotland regarding potential design options, it was agreed to proceed on the basis of extending the pipe to a point approx. 30m north of the embankment collapse where the distance between the ditch and the A96 was significantly greater.

Once the new pipe was placed, a new headwall was installed and the ditch was backfilled. The remaining section of ditch beyond the pipe was reinforced with rock armor to prevent any future scour issues.



Completed works

The scheme took two weeks to construct, during which time, a temporary coffer dam was placed in the ditch with water being over pumped to the outfall. The works were successfully carried out and all traffic management removed from the A96 at this location.

Value for Money and Innovation

“ To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work.

Financial Management

Reported spend figures are inclusive of contract price fluctuations (CPF) unless otherwise stated.

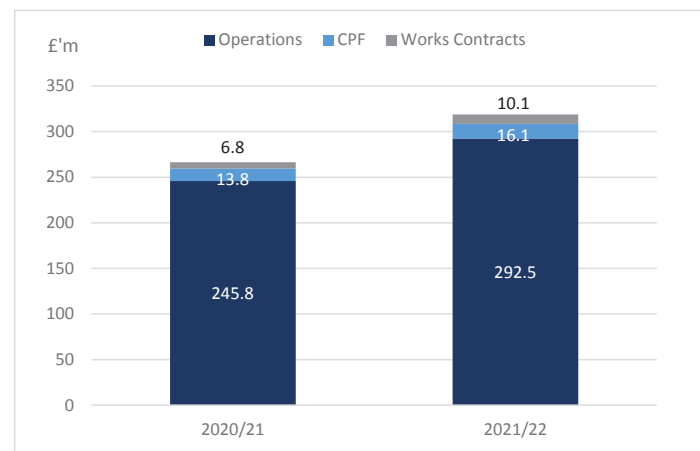


Figure 3: Spend v Budget (excluding CPF) all Units

A comparison of spend figures for 2021/22 and 2020/21 is shown in Figure 3: Spend v Budget (excluding CPF) all Units Total spend for 2021/22 is £302.9m (2020/21: £266.3m).

The budget for 2021/22 of £320.5m (net of CPF), which is an increase of £59.3m (22.7%) from the previous year.

Figure 4 gives a breakdown by the differing elements of activity. Note that in Figure 4 the heading 'Other' is mostly comprised of Core Operations activities such as cyclic maintenance, detailed/comprehensive inspections and winter maintenance.

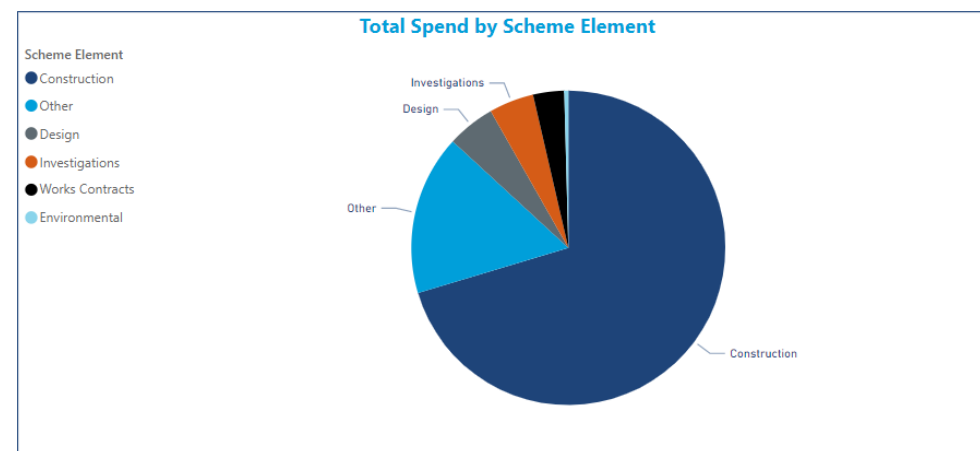


Figure 4

Value for Money and Innovation

Budget, Spend and Programmes

PAG monitors and reports on the inter-relationship of budget, orders and spend to assist Transport Scotland in its financial management.

Budgetary Control

Budgetary control by the Operating Companies is an important management responsibility. It is important that the Operating Companies 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 PAG audit and monitoring programme.

The Operating Companies have responsibility for delivering a programme of maintenance covering five budget categories, these are routine maintenance (RM), structural maintenance (SM), structures (STR), minor improvements (MI) and strategic road safety (SRS).

A comparison of spend against budget for 2021/22 is shown in Figure 5: Spend v Budget (excluding CPF) all Units.

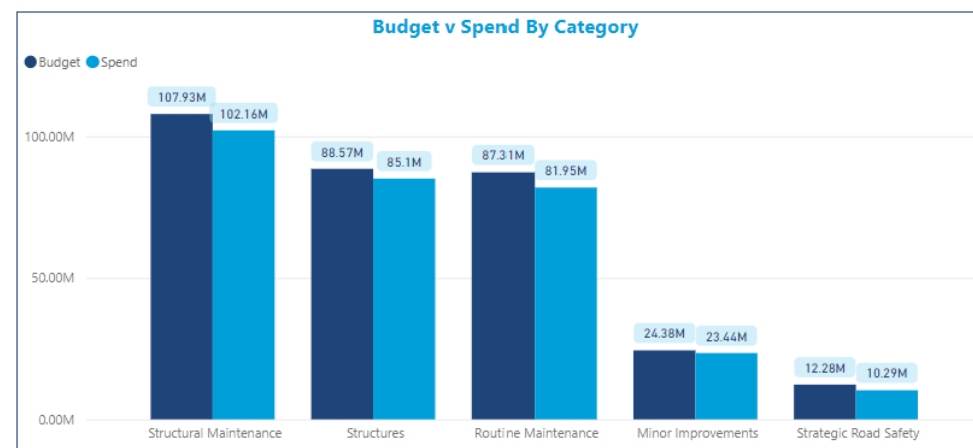


Figure 5: Spend v Budget (excluding CPF) all Units

Operating Company performance in budgetary control is assessed on the accuracy of monthly profiled spend v actual spend and year-to-date profiled spend v actual spend. Performance was Fair for all units except the NW unit where it was Poor. All units were consistently behind in delivering their programmes. The impact of this was a significant overall underspend of £17.5m. NW unit is the main contributor at £7.5m, SE unit at £3.8m, NE unit at £3.1m and SW unit at £3.1m. PAG will continue to monitor this aspect of contract budgetary control.

Performance Measure	NE	NW	SE	SW
Budget v Spend	Orange	Red	Orange	Orange

Table 9

Value for Money and Innovation

Financial Management of Schemes

PAG monitors various aspects of Operating Company performance in financial management of schemes with ratings given throughout the year. Table 10 gives the average rating in each of these areas with further description given below.

Performance Measure	NE	NW	SE	SW
Bids	Orange	Orange	Orange	Orange
Expenditure Profiling	Orange	Orange	Orange	Green
Order v Spend	Orange	Red	Orange	Red
Part B and C items	Orange	Orange	Dark Green	Green
Scheme Completion	Green	Orange	Orange	Red
Statements	Green	Green	Green	Green
Works Contract Invoices	Grey	Grey	Dark Green	Dark Green

Table 10

Bids

Operating Company performance in Bid submission is based on regularity of Bid revisions, Bids in system for the next month's programme and Bids submitted for the construction element not later than 25 working days of construction starting. Overall performance was Fair in all units with the Operating Companies not always submitting revised bids adjusting for over or under spends for schemes completed from two months or longer, having insufficient Bids in the system or not always submitting construction bids within contractual timescales. The NNC issued in 2019/20 to NE unit for Poor performance remained open at the end of the annual period. Monthly meetings with the Operating Company have taken place to monitor progress being made in resolving this ongoing issue.

Order v Spend

Assessment of Operating Company performance is rated on the number of schemes and/or financial materiality of overspend to Ordered value. Performance was Fair in NE and SE units with spend exceeding orders on a regular basis. Performance was Poor in NW and SW units where spend frequently exceeded orders. The NNCs for NE, NW and SW units issued in 2020/21 all remained open at the end of the annual period. Where appropriate, monies were deducted from payment.

Value for Money and Innovation

Scheme Completion

Operating Company performance for scheme completion is based on identifying schemes from Operating Company expenditure profiles which have no further planned spend and check if schemes are logged as completed in the Contract Control and Management function (CCMF) of IRIS.

Performance in this area was mixed across the Operating Companies. NE unit performance was Good with the Operating Company closing out a significant number of schemes after scheme construction. NW and SE units had a Fair performance with a moderate number of schemes still open during the period after completing construction. SW unit had a Poor performance with a majority number of schemes still open during the period after completing construction. The NNC issued to SW unit in the period remained open at the end of the annual period whilst the NNC for NW unit issued in 2020/21 was closed in the annual period.

Expenditure Profiling

Operating Company performance is assessed on timeliness of submission and agrees with budget value. Performance was Good in SW unit with expenditure profiles occasionally being submitted late or not matching budgets, scheme costs being split equally over multiple periods and use of bucket code schemes. Performance in NE, NW and SE units Fair. Whilst profiles were submitted on time there were moderate issues encountered including profiles not matching budgets and use of bucket code schemes. The NNCs issued to SW unit in 2020/21 and NE in the current annual period were both closed during the annual period following improvement in performance from Poor to Good.

Statements

Operating Company performance is assessed on statements being issued within contractual timescales and the value of missing supporting records within CCMF. Performance was Good in all units. All statements were submitted within required timescales, although some supporting information was not available in CCMF at time of the statement submission.

Works Contractor Invoices

Performance was excellent in SE and SW units. No works contracts were carried out in NE and NW units during the reporting period.

Disputed Items (Part B and C items)

PAG undertakes a review of the Operating Companies applications for payment with any issues highlighted for discussion via PAG Statement Review Notes process with disputed amounts recorded in separate parts of the statement (Parts B & C). Performance is assessed on how the Operating Companies resolve, address, or respond to disputed issues within a reasonable timescale. SE unit performance was Excellent. Performance in SW unit was Good with the Operating Company responding to issues reported in PAG's Statement Review Notes within a reasonable timescale. Performance in NE and NW units was Fair as the Operating Companies were slow in closing out issues.

Value for Money and Innovation

Operating Company Financial Management of CCMF

As part of the financial management of schemes and budget Operating Companies are required to utilise the Contract Control and Management Function (CCMF) of IRIS.

CCMF - Damage to Crown Property

Performance in populating damage to crown property (DCP) data within CCMF was Good for NW and SE units with minor level of DCP data missing from CCMF. Performance in NE was Fair with moderate level of DCP data missing in CCMF. SW performance was Poor in populating CCMF with all appropriate DCP information. An NNC issued NW unit in the previous annual period was closed this annual period, whilst an NNC issued to NE unit in this annual period was subsequently closed.

CCMF - Statements

Performance in populating statement data within CCMF was Excellent in NE and NW units. SE unit performance was Good with minor level of statement data missing from CCMF and SW unit performance was Fair with moderate level of statement data missing in CCMF.

Performance Measure	NE	NW	SE	SW
CCMF - DCP	Orange	Green	Green	Red
CCMF - Statements	Dark Green	Dark Green	Green	Orange

Table 11

Measurement and Valuation

Works are ordered by Transport Scotland via Operations Instructions (OI) which set out what is to be done and how it is to be measured for payment along with payment rates. PAG reviews OIs at both bid stage and on completion of the operations to check operations were being measured and charged to the appropriate rates and that all records required to back up the values claimed were saved to the appropriate location in the contract control database. Two distinct aspects are reviewed, the Method of Measurement utilised, and the records provided. Records include both measurement records to justify the values claimed, and testing records to evidence the quality of the materials constructed achieve the required specification.

PAG carried out a total of 50 OI/Measurement reviews covering 133 Operations Instructions totalling £12.2m during the annual period. Operations reviewed including resurfacing, patching, drainage, bridge expansion joint replacement, barrier replacement, fencing, lighting, vegetation clearance and white lining. PAG rated measurement to a good standard in NW and SE units. PAG monitoring noted minor issues relating to incorrect quantities, item coverage, no justification provided, or items not measured in accordance with the preambles. For records, there were minor observations relating to a lack of supporting records or specific types of records missing such as measurement records, waste transfer notes, grip test results, site diaries and dipping records. Performance for NE and SW units was Fair. PAG monitoring noted recurring issues relating to incorrect quantities, item coverage, no justification provided, or items not measured in accordance with the preambles.

Value for Money and Innovation

For records, the most common issues found related to a lack of supporting records or specific types of records missing such as measurement records, waste transfer notes, grip test results, site diaries and dipping records. The NNC for SW unit issued in 2020/21 was closed in August 2021 following an improvement in providing records, however, performance in the second half dropped and a new NNC was issued in June 2022.

Performance Measure	NE	NW	SE	SW
Measurement				

Table 12

Quality Management

Over the course of the year PAG reviews Operating Company performance in delivering its own internal audit programme, and the effectiveness of its Non-Conformance Register to log, resolve and close out any Non-Conformances noted either internally or via PAG reporting. The Quality Management Systems of the Operating Companies was found to perform well. Although it can be noted that PAG did raise a number of Notices of Non-Conformance in the annual period these were generally dealt with timeously by Operating Companies demonstrating a good robust Quality Management system.

SW fared slightly worse than the other three units as it was noted to not always manage to complete its audits to programme and Non-Conformances in its Non-Conformance Register went beyond their target closure dates.

Performance Measure	NE	NW	SE	SW
Quality Management System Monitoring and Audit				
PI 16 (4G) / MI 15 (NMC) Submission of reports	100.0%	100.0%	100.0%	86.8%
PI 15 Closure of Non-Conformances	98.7%	95.1%	1.8	12.7
MI 14 (4G) / PI 14 (NMC) Remedial Notices	2.7	3.0	0.1	0.2
Notice of Non-Conformance raised in period	7	3	10	12
Remedial Notice raised in period	2	0	1	1

Table 13

Sustainability

“ To reduce carbon and waste and enhance environments.

On each site visit undertaken by PAG a check is undertaken on the environmental measures employed on the site. To check materials are safely stored with adequate measure in place in case of spillage, and that soft landscaped areas are adequately protected from machinery or spillage.

These reviews generally found a good overall performance on site. Occasional issues were noted such as materials not being adequately stored with appropriate containment safeguards in place.

Performance Measure	NE	NW	SE	SW
Environmental and Sustainability Monitoring and Audit				
MI 17 (4G)/ MI 33 (NMC) Sustainability - use of reused recycled, renewable materials	0.0%	0.0%	12.3%	4.2%
MI 18 (4G) / PI 28 (NMC) Sustainability - Waste generation and management	100.0%	98.5%	100.0%	98.0%

Table 14

Case Study: Amey SW

A76 Pavement Recycling

The recycling process involves ex-situ recycling of pavement planings for reuse on site. The planings are removed off site to a nearby quarry, reprocessed and encapsulated before being brought back to site and relayed as the base layer of the new road pavement.

- In total 3600 tonnes of planings were recycled via ex-situ recycling (2356.5 tonnes contaminated with coal tar and 1143 tonnes of non contaminated planings).
- The ex-situ recycling process reduced the significant number of lorry journeys and treatment of waste resulting in a saving of 67.6 tCO2 (e).
- The ex-situ recycling process resulted in a saving of 131.7 tCO2 (e) when comparing recycling / reprocessing to utilising the equivalent amount of new virgin aggregate material.
- Overall, the total carbon saving from the project was 200 tCO2 (e), to put this into perspective the carbon emissions saved equates to 500,000 miles driven in a regular diesel car.
- Additionally, preventing the disposal of 356.5 tonnes of coal tar contaminated planings to hazardous waste resulted in a saving of £706,950.

Example of the ex-situ process



Tar bound material transported to quarry and loaded into the impact crusher, screened and regraded into 25mm planings. This is then mixed with PFA and loaded into Recofoam Plant.



Recofoam plant involves the addition of cement and bitumen.



Encapsulated material loaded back onto lorry, straight from Recofoam Plant and taken back to site.



Material emptied onto paver where it is relayed as a base material. This asphalt is a cold mix asphalt and doesn't require the normal high temperatures.

Customer Care and Travel Information

“ To provide customers with up-to-date, reliable travel information and support the level of satisfaction in trunk road services.

Reviews were undertaken on performance in dealing with Third Party Claims, which were generally undertaken in accordance with procedures and in accordance with the contractual requirements, however there were inconsistencies or omissions noted on the records reviewed in NE and SW units.

Reviews were also undertaken on the SW and SE units on the NMC contract requirement to provide a public facing website. The websites generally provided the information and service required by the contract, however an NNC was issued to SW as its website was not fully compliant by not providing details of the appeals procedure in the event of third-party claims raised against the Operating Company.

Performance Measure	NE	NW	SE	SW
Customer Care and Travel Information				
PI 16 (NMC) Complaints Response Time Compliance			100.0%	100.0%
PI 18 (4G) Communications Response/ PI 18 (NMC) Correspondence and Call Response Time Compliance	99.3%	100.0%	99.1%	94.4%

Table 15

Case Study: BEAR SE

Schools Engagement

During the 2021-22 academic year BEAR Scotland has rolled out a comprehensive education programme in South East Scotland and beyond. We reached 3,881 primary and secondary school pupils in 90 schools – over 80% via virtual sessions. That still means we reached over 650 pupils in person.



We developed and delivered bespoke 'BEAR Cubs' and 'BEAR Academy' programmes. Additionally, we worked with Developing the Young Workforce (DYW) and the Engineering Development Trust (EDT) to deliver virtual programmes that drive interest in STEM. It was great to visit schools, bringing Gritters to the primary schools that had named them

at the beginning of the SE contract in 2020. We also ran a 'Trunk not junk' competition focused on getting the anti-littering message that resulted in some great campaign ideas.

We also sponsored schools such as Queensferry High and James Young High in Livingston to support enterprise and STEM challenges.

In May 2022 we invited S3-S5 students from St Margaret's Academy, Livingston to take part in a Work Placement Week. They got involved engineering and construction-related activities including a work-related team challenge.



School Water filter experiment

Arlene Nicol, DYW West Lothian Project Liaison Officer, said:

“ It was fantastic to see how the students grew in confidence over the week and developed their skills.

Accessibility and Integration

“ To provide a network that is accessible to all users, with improved connectivity, and to ensure that traffic moves freely and quickly across Scotland.

Audits were undertaken to assess Operating Company performance in dealing with Barriers to Accessibility on their units. Barriers to Accessibility are such things as not having dropped crossings at road junctions to assist wheelchairs users to cross the road, or not having tactile paving slabs at pedestrian crossings to assist blind pedestrians to safety use crossings. By installing such infrastructure the Operating Company is removing these barriers to accessibility.

Minor issues were noted in NW and NE on not submitting all require contractual forms, but all units were found to have good robust procedures in place and were undertaking contractual requirements.

Performance Measure	NE	NW	SE	SW
Barriers to Accessibility				
PI 17 Planning Applications	100.0%	99.8%	98.3%	99.3%

Table 16

Performance and Quality Indicators Summary

The following tables provide a summary comparison of performance in all the differing areas of the contract in either PAGs Quality assessment of delivery or the contractual Performance Indicators. The 2020/21 ratings are also provided for comparison.

Quality Ratings in delivery performance

Quality Ratings	NE		NW		SE		SW	
	2020/21	2021/22	2020/21	2021/22	2020/21	2021/22	2020/21	2021/22
Safety Inspections (4G) / Routine Monitoring Inspections (NMC)	Green	Yellow	Green	Yellow	Red	Yellow	Green	Yellow
Winter Service	Green	Yellow	Green	Yellow	Yellow	Green	Green	Yellow
Incident Response	Red	Green	Green	Green	Red	Yellow	Yellow	Yellow
Health & Safety and CDM	Dark Green	Dark Green	Dark Green	Green	Dark Green	Dark Green	Dark Green	Green
Network Maintenance Schemes	Green	Dark Green	Green	Dark Green	Dark Green	Dark Green	Green	Dark Green
Structures Maintenance Schemes	Green	Red	Green	Grey	Grey	Grey	Green	Dark Green
Network Cyclic Maintenance	Green	Green	Green	Green	Green	Green	Dark Green	Dark Green
Structures Cyclic Maintenance	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Green	Red
Detailed Inspections (4G) / Comprehensive Inspections (NMC)	Yellow	Yellow	Red	Yellow	Green	Green	Green	Yellow
Principal and General Inspections	Grey	Grey	Grey	Grey	Yellow	Yellow	Grey	Yellow
JTRC & Traffic Management	Dark Green	Dark Green	Green	Dark Green	Yellow	Dark Green	Yellow	Dark Green
DRMP	Yellow	Grey	Yellow	Green	Yellow	Yellow	Yellow	Green
Structures Risk Programmes	Red	Yellow	Green	Grey	Grey	Grey	Grey	Grey
Structures Investigations	Green	Yellow	Yellow	Green	Green	Yellow	Green	Green
Measurement	Green	Yellow	Green	Green	Green	Green	Yellow	Yellow
Quality Management System	Green	Green	Green	Green	Green	Green	Green	Yellow
Environmental and Sustainability	Green	Green	Green	Green	Green	Green	Green	Green
Customer Care and Travel Information	Yellow	Grey	Green	Green	Grey	Green	Grey	Yellow
Barriers to Accessibility	Grey	Green	Grey	Green	Yellow	Dark Green	Green	Grey

Table 17

Quality Ratings in financial performance

Financial Management	NE		NW		SE		SW	
	2020/21	2021/22	2020/21	2021/22	2020/21	2021/22	2020/21	2021/22
Budget v Spend	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Yellow	Yellow
Bids	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Expenditure Profiling	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Green
Order v Spend	Yellow	Yellow	Red	Red	Yellow	Yellow	Yellow	Red
Part B and C items	Yellow	Yellow	Yellow	Yellow	Dark Green	Dark Green	Green	Green
Scheme Completion	Dark Green	Green	Red	Yellow	Green	Yellow	Yellow	Red
Statements	Green	Green	Yellow	Green	Green	Green	Dark Green	Green
Works Contract Invoices	Grey	Grey	Grey	Grey	Dark Green	Dark Green	Dark Green	Dark Green
DCP	Red	Yellow	Red	Green	Grey	Green	Green	Red
Statements	Green	Dark Green	Green	Dark Green	Green	Green	Yellow	Yellow

Table 18

Performance and Quality Indicators Summary

Contractual Performance Indicators

Performance Indicators	NE		NW		SE		SW	
	2020/21	2021/22	2020/21	2021/22	2020/21	2021/22	2020/21	2021/22
PI 02 (NMC) Repair of Structures Category 1 Safety Defects					70.0%	66.7%	17.9%	75.0%
PI 03 Repair of Category 1 Safety Defects (except Structures)	95.6%	95.7%	96.6%	95.9%	76.9%	93.0%	76.4%	92.0%
PI 04 (4G) / PI 27 (NMC) Incident Response	93.3%	96.5%	97.8%	97.9%	98.7%	91.6%	97.3%	95.7%
PI 04 (NMC) Asset Data Quality Audit								
PI 05 Safety Inspections and Patrols (4G) / Routine Monitoring Inspections (NMC)	99.8%	97.9%	98.5%	96.8%	93.6%	95.6%	89.3%	95.6%
PI 06 Detailed Inspections (4G) / Comprehensive Inspections (NMC)		85.1%		70.3%		79.4%		77.7%
PI 07 Cyclic Maintenance		76.4%		80.3%		50.4%		56.5%
PI 08 Structures Principal Inspections	97.2%	99.8%	97.7%	90.6%	98.1%	96.9%	88.6%	84.2%
PI 09 Structures General Inspections	100.0%	99.4%	99.2%	98.8%	98.3%	99.3%	98.4%	98.8%
PI 10 Structures Maintenance Programme	100.0%	100.0%	94.2%	98.2%	67.3%	96.6%	67.2%	88.5%
PI 11 (4G) Winter Service treatments	99.6%	99.4%	99.6%	98.1%				
PI 11 (NMC) Well Lit Network					99.1%	89.2%	99.4%	100.0%
PI 12 (4G) Actual spend against profile	80.6%	84.3%	83.5%	72.0%				
PI 12 (NMC) Winter Treatment Efficiency					0.1	0.0	0.9	13.8
PI 13 (NMC) Weather Forecast Accuracy					-0.7%	-4.6%	-24.2%	-34.0%
PI 14 (NMC) Remedial Notices					0.0	0.1	0.0	0.2
PI 15 Closure of Non-Conformances	100.0%	98.7%	93.7%	95.1%	1.9	1.8	1.6	12.7
PI 16 (4G) Submission of reports	99.7%	100.0%	100.0%	100.0%				
PI 16 (NMC) Complaints Response Time Compliance								
PI 17 Planning Applications	99.5%	100.0%	100.0%	99.8%	90.6%	98.3%	100.0%	99.3%
PI 18 (4G) Communications Response / PI 18 (NMC) Correspondence and Call Response Time Compliance	100.0%	99.3%	100.0%	100.0%	98.9%	99.1%	97.9%	94.4%
PI 20 Grassed area	100.0%	100.0%						
PI 21 (4G) Recording Inventory Condition Rating		75.4%		75.2%				
PI 21 (NMC) Salt Spread					97.5%	98.7%	99.7%	100.0%
PI 22 (NMC) Litter and Refuse								
PI 23 (NMC) Review and Inspection of Structures Assets with Known Defects								
PI 24 (NMC) Inventory Data Completion								
PI 25 (NMC) Approvals for Structural Maintenance								
PI 26 (NMC) Submission of Planned Maintenance Works (Work Code 0300)								
PI 28 (NMC) Sustainability - Waste Generation and Management								
PI 29 (NMC) Timely Upload of Construction Phase Plans								
PI 30 (NMC) Timely Upload of Final Health and Safety Plans								
PI 31 (NMC) Asbestos Action Plans								

Table 19

Operating Company Unit Information

4G North West fact file



Managed and maintained by:

BEAR Scotland Ltd.
BEAR House
Inveralmond Road
Inveralmond Industrial Estate
Perth
PH1 3TW

Total route length of the network in NW:

1,439km

Number of structures:

1,511

Budget for maintaining trunk roads in NW this period:

£80.2m

Operating Company Unit Information

4G North East fact file



Managed and maintained by:

BEAR Scotland Ltd.
BEAR House
Inveralmond Road
Inveralmond Industrial Estate
Perth
PH1 3TW

Total route length of the network in NE:

573km

Number of structures:

567

Budget for maintaining trunk roads in NE this period:

£59.8m

Operating Company Unit Information

NMC South West fact file



Managed and maintained by:

Amey
Oatlands House
150 Polmadie Road
Glasgow
G5 0HD

Total route length of the network in SW:

618km

Number of structures:

1,560

Budget for maintaining trunk roads in SW this period:

£106.2m

Operating Company Unit Information

NMC South East fact file



Managed and maintained by:

BEAR
Forth Road Bridge
South Queensferry
EH30 9SF

Total route length of the network in SE:

505km

Number of structures:

760

Budget for maintaining trunk roads in SE this period:

£74.3m

Glossary of Terms

4G contracts

4th generation contracts which were tendered in two phases. NW was tendered first and commenced on 1 April 2013. NE commenced on 16 August 2014.

NMC Contracts

Network Management Contracts were introduced to replace the 4G contracts in the SW, SE and Forth Bridges units in August 2020. The 4G SW unit transferred over in its entirety whilst the 4G SE and Forth Bridge units were combined into a single new SE unit.

Category 1 defect

A Defect that necessitates prompt attention because it presents:

- (i) an immediate or imminent hazard, or
- (ii) a risk of rapid structural deterioration to the affected element.

Category 2 Defect

Any Defect which is not a Category 1 Defect.

CCMf (Contract control and management function)

A part of IRIS - computer-based financial management system supplied by Transport Scotland and operated by the Operating Companies. The system gives everyone working on the Operating Company contracts, including Transport Scotland and PAG, relevant access to information about how operations and works contracts are being managed financially and where money is being spent.

Contract price fluctuation factor (CPF)

Inflation adjustments to the Operating Company's tendered rates and prices.

Financial year

The period between 1 April 2021 and 31 March 2022.

IRIS (Integrated road information system)

The asset management system provided by Transport Scotland and used by Operating Companies in delivery of the maintenance contracts. It includes the functionality of CCMF, RMMF, SMS and data on the physical characteristics, condition of the trunk road network and accidents.

Performance indicators

A contract based numerical measure of the Operating Company's performance in delivering various contractual requirements with targets to be achieved.

Monitoring indicators

Monitoring indicators provide a numerical measure of service provision. These differ from Performance Indicators in that there is no target set for achievement.

Non-conformance (NC)

Default by the Operating Company or defect in operations.

Notice of non-conformance (NNC)

The process to notify Operating Companies of areas noted by PAG that are not complying with the contract.

Operations

Work carried out by the Operating Companies.

Orders

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

Glossary of Terms

Quality management system (QMS)

Quality management is fundamental to the contracts. A QMS is drawn up by each Operating Company to set out 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 Operating Company commits a default. This is part of the performance management procedures and may lead to withholding amounts from payment.

RMMF (Routine maintenance management function)

A part of IRIS - computer-based system supplied by Transport Scotland and operated by the Operating Companies, to record and report on details of the network, including where it has been inspected and routinely maintained.

SMS (Structures management system)

A part of IRIS - 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.

Works Contract

Any works undertaken under a separate contract, designed, procured and supervised by Operating Companies. Such contracts are between the Scottish Ministers and a works contractor for execution of a scheme or part of a scheme.

Abbreviations

4G	Fourth Generation Term Contract for the Management and Maintenance of the Scottish Trunk Road Network
NMC	Network Management Contract
BICS	Bridge inspector certification scheme
CCMF	Contract control and management function
CDM	The Construction (Design and Management) Regulations 2015
CPF	Contract price fluctuation
DCP	Damage to Crown Property
DRMP	Disruption Risk Management Plan
FB	Forth Bridges
FCBC	Forth Crossing Bridge Constructors
H&S	Health and safety
IRIS	Integrated road information system
ISO	International Standards Organisation
LED	Light emitting diode
MI	Monitoring indicators
NNC	Notice of non-conformance
OI	Operating Instruction
ORI	Observation resulting from inspection
PAG	Performance Audit Group
PI	Performance indicators
QMS	Quality management system
RMMF	Routine maintenance management function
RN	Remedial Notice
SM	Structural maintenance
SMS	Structures management system
SRS	Strategic road safety
STR	Structure
TS	Transport Scotland
VRS	Vehicle restraint system



PAG Performance Audit Group

Turner & Townsend Infrastructure

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making the **difference**