



SCOTTISH
SAFETY CAMERA
PROGRAMME

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ANNUAL PROGRESS REPORT 2017/18



INTRODUCTION

The Scottish Safety Camera Programme (The Programme) aims to reduce the number of casualties on Scotland's roads by encouraging improved driver behaviour.

It does this by ensuring safety cameras are deployed as a visible and effective deterrent which helps contribute to the road safety vision and road safety targets as set out in the Scottish Government's [Road Safety Framework to 2020](#).¹:

A steady reduction in the numbers of those killed and those seriously injured, with the ultimate vision of a future where no-one is killed on Scotland's roads, and the injury rate is much reduced.

Police Scotland is responsible for the operational delivery of the Programme, with Scottish Government (through the Scottish Safety Camera Programme Office) responsible for the Programme's performance and the administration of grant funding for camera enforcement activity.

As part of the performance management responsibilities, this annual report is the third produced by the Programme Office. It has been informed largely by information submitted by the three regional Safety Camera Units.

This report sets out the range of activities the Programme has been involved in throughout 2017/18 to ensure safety cameras maximise their potential to reduce injury collisions, and are deployed primarily at locations where there is evidence of collisions and speeding.

¹ *Scotland's Road Safety Framework to 2020*:
<http://www.gov.scot/Resource/Doc/274654/0082190.pdf>

ENFORCEMENT

Site Selection

To continue to maximise the Programme's casualty and collision reduction potential, and in implementing the recommendations from the Programme Review, 2017 saw the second annual site selection process commence.

Evidence of speeding and collision history is required for a new site to qualify for enforcement, as per the *Handbook* criteria. Existing sites may also be proposed for decommissioning.

The 2017 site selection process, involving Safety Camera Unit Managers (North, East and West) working in collaboration with Road Authorities (including Transport Scotland as the trunk road authority) and Police Scotland, identified **4** new sites. It was noted this was a reduced number of new sites compared with the 2016 site selection process which identified 6 sites. In addition, it was further noted that all the identified sites were located in the West Unit, with no new sites in the North or East Units.

These new sites comprised **1** fixed, **1** mobile, **1** combined fixed/mobile and **1** average speed site. Plans are now progressing to ensure the delivery of these sites.

As an outcome of the 2016/17 site selection exercise, installation of Scotland's first urban average speed camera system on Old Dalkeith Road in Edinburgh was completed in the summer of 2017 and enforcement began on 4th September. Following the national site selection exercise, an average speed camera system was agreed as the most effective and appropriate intervention at this site. In the three years 2013-15, there were 6 injury collisions on this stretch of Old Dalkeith Road alone, including 3 resulting in serious injury or fatality. Speed surveys were carried out which indicated speed was a continuing concern with a high proportion of vehicles travelling above the speed limit.

Camera Deployment

Through 2017/18, a range of camera types were deployed by the three Units across Scotland to improve driver behaviour and speed limit compliance on our roads. These include **fixed** speed cameras, **mobile** speed cameras, **average** speed camera (ASC) systems, and **red-light** cameras (including a number with dual functionality to detect speeding vehicles). Across the Units, deployments are undertaken on an intelligence-led basis to ensure locations of greatest risk are prioritised.

Fixed Cameras

Camera rotations at fixed camera sites take place across the Units, depending upon site priority which is based on where there is likely to be the most significant impact on casualty and collision reduction and the number of cameras available in the Unit. The ratio of fixed speed cameras to fixed camera enforcement locations remained sustainable in each Unit. Following the technology upgrade on the A90, two camera modules have been re-allocated to the West SCU for new sites which will increase the deployment ratio and further assist in modifying driver behaviour. These additional cameras will be deployed from April 2018.

	NORTH	EAST	WEST
Fixed camera enforcement locations	17	69	63
Fixed speed cameras	9	16	18

Mobile Cameras

Similarly, mobile camera deployments across the Units are informed by casualty and collision history². Whilst the overall number of vans servicing core sites in each Unit remained sustainable it was identified that a number of vehicles were becoming problematic to maintain due to age and/or mileage. To address this issue 6 new vehicles (2 allocated to each Unit) and enforcement equipment packages were procured in 2017/18 for deployment in 2018/19 onwards.

	NORTH	EAST	WEST
Mobile camera sites	53	66	47
Mobile camera enforcement vans	13	8	6
Route Strategies³	19	10	3

In line with the *Programme Handbook*, deployments reflect collision and speeding profiles with deployments throughout 2017/18 taking place seven days a week. There has been increased deployment of the Orpheus IR Flood Units during the darker evenings. Although mobile camera deployments take place across the core period from 0700-2000, variances within the Units remain as a result of legacy Police Force terms and conditions, and have been identified as a risk to diluting potential enforcement capability.

Weekend and Hours of Darkness enforcement is being progressed as part of the Stage 2 Organisational Change Review of the Safety Camera Units. Revised operational hours proposals and provisional funding arrangements were approved by the Programme Office in January 2018. Police Scotland will continue to progress this proposal through the relevant processes with a view to full implementation during 2018/19.

² Mobile camera enforcement also takes place through the Programme at sites established through previous criteria as exception sites, and through short-term deployments (see paragraph 11).

³ A Route Strategy is for those routes, or sections of routes, that have a history of personal injury collisions and speeding. Route Strategies may also encompass individual sites.

In response to emerging issues or one-off short-term events, short-term deployments continued through 2017/18 to improve operational effectiveness and deployment flexibility. On these limited occasions, deployments were proactively managed to ensure casualty and collision reduction potential was not diluted. These deployments were in response to specifically identified needs, for example, routes to the North West 200 and the Gumball Rally in the West and on the A6094 Rosewell Bypass and the A84 Stirling Road, Callander in the East.

Permanent Average Speed Camera (ASC) systems

As an outcome of the 2016/17 site selection process, it was announced in March 2017 that an ASC system would be installed on a 51.5 mile stretch of the A90 between Dundee and Stonehaven replacing the existing fixed and mobile enforcement strategy, including an integral element to enforce the 50mph speed limit in place at Laurencekirk. Works progressed with this scheme over the summer of 2017 and the system became operational on 31 October 2017.

Emerging findings from the first set of speed surveys conducted after the installation of ASC on the A90 indicate they are having a significant positive impact on driver behaviour along the route. Before average speed cameras were deployed, around 3-in-5 vehicles were speeding. This figure is now approximately 1-in-100 vehicles, with 98.9% of vehicles complying with the speed limit on the route. In addition, before ASC were deployed 1-in-5 vehicles were estimated to be exceeding the speed limit by 10mph or more. This figure is now approximately 1-in-5000 vehicles.

This scheme complements the existing two permanent ASC systems operational in Scotland through 2017/18, on the A9 between Dunblane and Inverness in the North and East Units and on the A77 between Girvan and Symington in the West Unit.

On the A9, an evaluation has shown that in the three years since the average speed camera system became operational between Dunblane and Inverness the number of fatalities and serious injuries have dropped significantly with 10 fewer deaths and 16 fewer people seriously injured. There has also been a long-term sustained change in driver behaviour demonstrated with a reduction in speeding, more consistent journey time and reduced number of road closures as a result of incidents.

On the A77, the most recent data shows there has been a 77% reduction in fatal casualties and a 74% reduction in serious casualties compared with the original baseline published in 2005.

Roadworks Enforcement

A number of Temporary Average Speed Cameras At Roadworks (TASCAR) systems were deployed in support of the Aberdeen Western Peripheral Route (AWPR) road construction scheme. Throughout 2017/18 a TASCAR system operated on the A90 between Balmedie and Blackdog, in January 2017 a second system was introduced on the A90 between Redcraig Lodges and Old Stonehaven Road and in May 2017 a third system was installed on the A90 at Stonehaven. All three systems remain operational at year end. Compliance with the speed limit at all three TASCAR sites

remained high, consistent with that experienced at other ASC sites. The workload was accommodated within the Nigg Office but required reduced deployment at other locations due to staffing shortages. Where possible, and desired, overtime was being paid to staff to assist in meeting demands.

The TASCAR System on the A90/M90 associated with the new Queensferry Crossing was removed in December 2017. The removal of this system has eased pressure on the Glenrothes office who were nearing capacity with the volume of reports the scheme generated. There were no other roadwork deployments in the East Unit and none are anticipated in 2018/19.

With the completion of the M8/M73/M74 project there was no roadworks enforcement schemes in the West.

Red-Light Cameras

A number of red-light camera-types were deployed through the Programme in 2017/18, including those with 24/7 capability.

	NORTH	EAST	WEST
Red Light Sites	0	15	19
Dual Red Light and Speed on Green	0	6	4

Five 'wet film' Gatso red light sites were identified for dormancy as part of the 2017/18 site selection process. Following changes by Vodafone to their cellular telephone network, an issue was identified with Redspeed camera communications. This was investigated and a solution developed to replace the modem/routers on all the West sites to prevent recurrence.

Motorcycle Deployment

A motorcycle camera deployment has been available to the three regional Safety Camera Units since 2016/17. This has been deployed primarily on routes favoured by motorcyclists (including the A82, A83, A84 and A85), and where it was expected to improve rider behaviour and road safety.

While it became clear during early deployments that the motorcycle was a particularly valuable communication tool, one of the key findings of the 2016/17 Annual Report was that an evaluation should be undertaken to assess and measure the effectiveness of this deployment initiative. This evaluation involved an objective financial evaluation. This considered the relative variable costs of the enforcement motorcycle against a comparative evaluation of a 'standard' mobile enforcement van option.

Usage

This found that throughout the 2017 calendar year there were 87 days when the enforcement motorcycle was in use. This comprised 66 days spent on enforcement

duties and 21 days where the motorcycle was used for publicity and education purposes at various events.

Deployment

The total number of enforcement hours achieved by the motorcycle for 2017 was 147 hours. Across the country the average annual hours of enforcement deployment for a mobile enforcement camera is 560 hours⁴. Therefore the motorcycle enforcement deployment hours were 26% of that achieved by an enforcement van on average.

Costs

The capital cost of procurement and fit out for a motorcycle equipped with safety camera equipment and a mobile enforcement van are similar therefore the economic viability focussed on the cost per enforcement hour. This found that the capital cost per enforcement hour for the motorcycle was £51 compared to £13 for a van. The staff cost per enforcement hour for the motorcycle was £155 per hour compared to £56 per hour for a van. This significant cost differential was driven by Police Scotland crewing arrangements for motorcycle deployments.

The combined cost per enforcement hour for the motorcycle is **£206** per hour compared to **£70** per hour for a van. The key factors driving this cost differential are the relatively low number of enforcement hours being achieved and the relatively high cost of operating staff.

Enforcement Hours

Performance reporting against Key Performance Indicators (KPIs) for fixed, mobile and red-light enforcement in each Unit for 2017/18 is set out at Annex A. This performance is measured against targets contained in the Operational Plan submitted to the Programme Office.

There was 311,990 hours of **fixed camera enforcement** nationally in 2017/18 against a target of 309,161 hours. This equates to achieving 101% of the targeted level. There were regionally variations, with the West Unit (111%) exceeding this target. Regional targets were almost met in the East (98%) however one Gatso Camera has proven problematic and has been sent for repair a number of times. Over the course of the reporting year, it is estimated to have been offline for approximately three months which has adversely affected fixed camera deployment overall. In the North deployment hours were lower (89%) due to a reconfiguration of priorities to ensure appropriate back office management of new camera systems in the region.

There was 15,556 hours of **mobile camera enforcement** nationally in 2017/18 against a target of 17,149 hours. This equates to achieving 91% of the targeted level. There were regionally variations, with the East Unit (101%) exceeding this target and the West achieving a high (98%) level. This target was not achieved in the North (80%) due a combination of staff resource issues and a reconfiguration of

⁴ Source: 2016-17 SCU Annual Reports

priorities to ensure appropriate back office management of new camera systems in the region.

Of all mobile camera enforcement hours 1,429 hours (9% of total) were darkness enforcement against a target of 1,198. This equates to achieving 119% of the target level. The targeted levels were exceeded in all 3 regional units.

Of all mobile camera enforcement hours 3,703 hours (24% of total) were weekend enforcement against a target of 3,768. This equates to achieving 98% of the target level. There were regionally variations, with the East Unit (126%) exceeding this target while regional targets were not met in the West (88%) and the North (89%) due a range of staff resource issues.

There was 241,832 hours of **red light camera enforcement** nationally in 2017/18 against a target of 270,043 hours. This equates to achieving 90% of the targeted level. There were regionally variations, with the West Unit (100%) achieving this target. The target was not achieved in the East (79%) as a number of sites were out of commission for an extended period due to utility works and City of Edinburgh Council's road resurfacing programme. There are no red light sites in the North Unit.

To maximise the Programme's collision and casualty reduction potential the **site selection** process utilised in 2017/18 should continue through 2018/19. Given the reducing number of new sites identified coupled with the regional variations in site locations, alternate site selection criteria should also be considered.

Qualitative evaluation should be undertaken to understand views from those involved in using and/or deploying the **motorcycle camera initiative**. At the same time, consideration should be given to ways to increase operational enforcement hours and how the bike could be crewed more efficiently.

Mobile enforcement deployment should reflect collision and speeding profiles, and include consideration of **extended darkness and weekend deployment**. It is anticipated that this will be addressed by the new shift patterns being developed as part of the Stage 2 Organisational Change Review.

STAFFING

First, it should be noted there was a tragic death in service within the East Unit during 2017/18.

In broad terms, 2017/18 saw a period of general stability across the three safety camera units. However, a number of vacancies do remain across each unit which impacts on the enforcement capability of the programme. It should also be noted that there was a hold on recruitment to fill vacant posts during the reporting year until the conclusion of the Stage 2 Organisational Change.

In the North there were 2-3 clerical vacancies impacting on maintaining enforcement levels in Aberdeen. Within Nigg, one camera enforcement staff member was on long term sick while another post was vacant which reduced the level of enforcement capability in the area by a third.

In the East, there is 1 vacancy. This relates to a camera enforcement assistant post at Dalkeith.

In the West, staffing levels are below establishment levels, with one camera technician post vacant, another on maternity leave and another on modified duties.

Following the introduction of findings from the Stage 2 Review of the Police Scotland Organisational Change Project it is expected that existing vacancies will be filled. This is anticipated to result in improved resilience and ease the pressures in the Units resulting from staff on leave, with the ability to flex resource across offices.

COMMUNICATIONS

Full time Communications Officers are in place in the West and East Units, with a part time Communications Officer in place in the North Unit.

This approach has helped to publicise safety camera activity throughout 2016/17. Highlights include:

- The website (www.safetycameras.gov.scot) receiving around 370 views per day.
- An increasing social media profile. This is evident through the twitter account having over 4,600 followers. This represents a 66% increase in followers throughout the year. A Facebook page was also created in November 2017 with a steady increase in numbers. A particular success has been the use of paid Facebook advertising. A small investment saw over 30,000 Facebook users promote an associated virtual reality video.
- All units supporting various local engagements, including young and pre driver events. This has included delivering innovative schemes, for example, a wheelie bin poster, and making use of innovative technology, for example Virtual Reality (VR) equipment, and the safety camera bike to encourage road users to consider their driving behaviour.
- The administration of Freedom of Information (Fol) Requests and general correspondence. Nationally, 62 Fol requests were received. All Fol and general correspondence responses were completed within the target timescale.

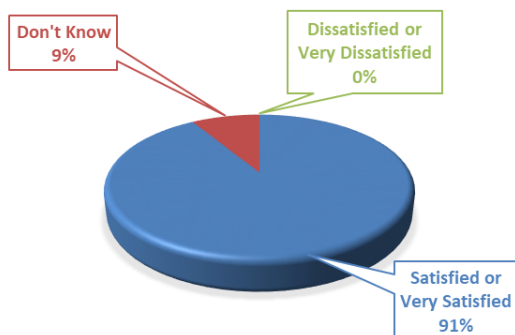
Building on the success of the *Safety Cameras Scotland* brand to date, consideration should be given as to how best to maximise the impact of opportunities to highlight safety camera information (deployment and general information/education). This should aim to enhance the key role safety cameras play on Scotland's roads. As part of delivering this recommendation, it is suggested a plan is developed to capture and measure all activities.

LOCAL ENGAGEMENT

In July 2018 a customer satisfaction survey was circulated to all road authorities in Scotland to allow them to feed back on local engagement in the new three-Unit structure. 23 road authorities responded to the survey and the findings are summarised below:

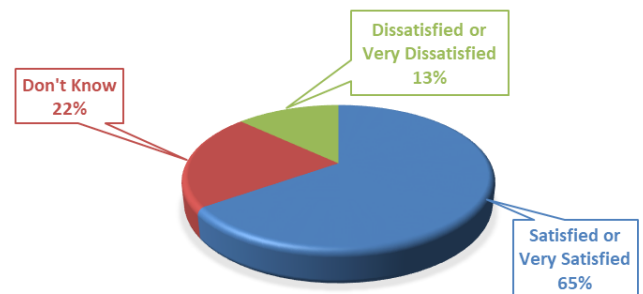
Question 1.

How satisfied are you with the engagement you have with the Safety Camera Unit in your area?



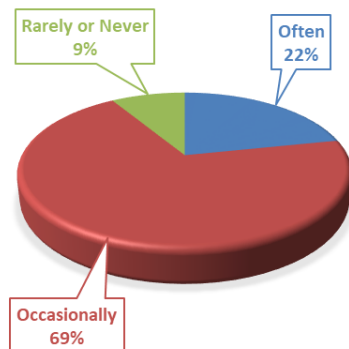
Question 2.

How satisfied are you with safety camera enforcement undertaken in your area?



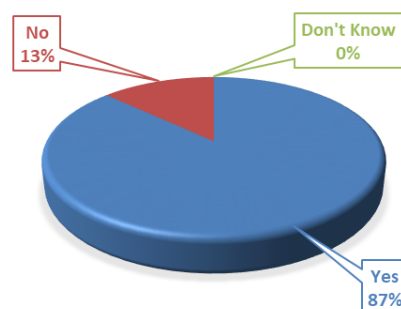
Question 3.

How regularly do you engage with your Safety Camera Unit?



Question 4.

Do you consider this to be an appropriate level of engagement?



The results of the 2017/18 Local Engagement survey continue to show an improvement in the level of satisfaction and appropriateness with both engagement and safety camera operations amongst the road authority community. Going forward, consideration should be given to replacing one of the current questions and possibly adding a fifth question in order to further explore areas that might present enhanced engagement opportunities.

FINANCE

The Safety Camera Programme budget for 2017/18 was £4.4m, with funding provided through central grant from Scottish Government. The funding arrangements for the provision of grant to Police Scotland (through the Scottish Police Authority) worked well through 2017/18.

Programme expenditure for 2016/17 and actual Police Scotland spend is set out at Annex B. A contribution of £378,775 was made by Transport Scotland to fund the delivery of the A90 Average Speed Camera scheme. This is in line with the original funding proposal laid out in the January 2017 paper to the Investment Decision Making Board which noted that scheme funding would come from existing Safety Camera Programme and Strategic Road Safety budgets.

Expenditure must continue to maximise the Programme's collision and casualty reduction potential. Budgets should be fully invested across the balance of staffing and required capital purchases.

CONCLUSION

Enforcement

To maximise the Programme's collision and casualty reduction potential the **site selection** process utilised in 2017/18 should continue through 2018/19. Given the reducing number of new sites identified coupled with the regional variations in site locations, alternate site selection criteria should also be considered.

Qualitative evaluation should be undertaken to understand views from those involved in using and/or deploying the **motorcycle camera initiative**. At the same time, consideration should be given to ways to increase operational enforcement hours and how the bike could be crewed more efficiently.

Mobile enforcement deployment should reflect collision and speeding profiles, and include consideration of **extended darkness and weekend deployment**. It is anticipated that this will be addressed by the new shift patterns being developed as part of the Stage 2 Organisational Change Review.

Staffing

Following the introduction of findings from the Stage 2 Review of the Police Scotland Organisational Change Project it is expected that existing vacancies will be filled. This is anticipated to result in improved resilience and ease the pressures in the Units resulting from staff on leave, with the ability to flex resource across offices.

Communication

Building on the success of the *Safety Cameras Scotland* brand to date, consideration should be given as to how best to maximise the impact of opportunities to highlight safety camera information (deployment and general information/education). This should aim to enhance the positive role safety cameras play on Scotland's roads. To deliver that aim, it is recommended a plan to capture and measure all activities be developed.

Local Engagement

The results of the 2017/18 Local Engagement survey continue to show an improvement in the level of satisfaction and appropriateness with both engagement and safety camera operations amongst the road authority community. Going forward, consideration should be given to replacing one of the current questions and possibly adding a fifth question in order to further explore areas that might present enhanced engagement opportunities.

Finance

Expenditure must continue to maximise the Programme's collision and casualty reduction potential. Budgets should be fully invested across the balance of staffing and required capital purchases.

Scottish Safety Camera Programme Enforcement Hours - Summary 2017/18

Annex A

Fixed

	East	West	North
Op Plan Hours	118557	121478	69126
Actual Hours	116132	134423	61435
No of Cameras	16	18	9
No of Sites	65	63	17
Ave.Hrs/Site/Month	149	178	301
Predicted % Availability	85%	77%	88%
Actual % Availability	83%	85%	78%
Against Op Plan KPI	98%	111%	89%

The East Unit has almost achieved its target for fixed enforcement however repeat faults with one camera, estimated to have been offline for approximately three months, has adversely affected fixed camera deployment overall. The West Unit has exceeded its Op Plan target however staffing levels were below target, with one Camera Tech short in Glasgow and one on maternity leave from mid-March. The North Unit has seen reduced deployment due to staffing issues in order to manage demand and not overload back office in view of additional activity associated with new average speed systems.

Mobile

	East	West	North
Op Plan Hours	5040	4093	8016
Actual Hours	5095	4031	6431
No of Vans	8	6	13
No of Sites	66	47	53
Ave.Hrs/Site/Month	6.4	7.1	10.1
Against Op Plan KPI	101%	98%	80%

In the East the Op Plan target was slightly exceeded, while in the West enforcement figures were on target in the early part of 2017-18 but Camera Tech resignations, long term injuries and maternity leave have impacted deployment in the second half of the year. In the North, enforcement hours have reduced due to ongoing vacancies, maternity leave, sickness and reduced deployment due to assisting in back office and court commitments.

Of Which Darkness:

Darkness Op Plan Hours	220	216	762
Darkness Actual Hours	300	227	902
As % of Enforcement	6%	6%	14%
Against Op Plan KPI	136%	105%	118%

In all Units, the Op Plan target was exceeded. In the West, Hours of Darkness enforcement recovered above expectations during Q4 resulting in an overall positive picture for the year. The North Unit exceeded their proposed hours, potentially due to less of an impact in allowances given for leave, sickness and court attendances.

Of Which Weekend:

Weekend Op Plan Hours	960	768	2040
Weekend Actual Hours	1205	676	1823
As % of Enforcement	24%	17%	28%
Against Op Plan KPI	126%	88%	89%

The East Unit has exceed its Op Plan target. Staff shortages in the West impacted on weekend enforcement in the early part of 2018. Ongoing vacancies, maternity leave and sickness abstractions in the North have affected weekend deployments.

Of Which Roadworks:

Road Works Hours	0	0	0
As % of Enforcement	0%	0%	0%

There were no occasions where mobile units were deployed in support of roadworks.

Of Which Short Term Deployment:

STD Hours	37	6	0
As % of Enforcement	1%	0.1%	0%

In the East and West, Short Term Deployments were used sparingly and in response to specific needs, e.g. Northwest 200 and the Gumball Rally. There were no short term deployments in the North Unit.

Red Light

	East	West	North
Op Plan Hours	131164	138879	N/A
Actual Hours	103287	138545	N/A
No of Cameras	18	18	N/A
No of Sites	21	23	N/A
Ave.Hrs/Site/Month	410	502	N/A
Predicted % Availability	83%	88%	N/A
Actual % Availability	66%	88%	N/A
Against Op Plan KPI	79%	100%	N/A

In the East a number of sites were out of commission for an extended period due to utility works and the City of Edinburgh Council's road resurfacing programme. The West Unit achieved its Op Plan target. A number of Gatso wet film sites were decommissioned following the site selection process. There are no red light sites in the North Unit.

**SCOTTISH SAFETY CAMERA BUDGET
2017/18**

INCOME

Description	Value
Grant Allocation	£4,400,000
Transport Scotland Contribution to A90 ASC	£378,775
Total Income	£4,778,775

EXPENDITURE

Description	Value
Grant Payments	£3,438,518
Camera Calibration and Maintenance	£151,754
A90 Technology Upgrade	£859,545
Site Selection Outcomes	£218,100
Back Office Systems Maintenance	£75,793
Road Authority Charges	£26,075
Workshops, Conference Fees and Reports	£8,992
Total Expenditure	£4,778,775

Balance	£0
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**Grant Payment Breakdown:
Police Scotland Actual
Expenditure**

Description	Value
North	£1,129,350
East	£1,205,002
West	£1,096,371
2016-17 Unforeseen Costs	£7,795
Total	£3,438,518
Grant Payments	£3,438,518
Balance	£0