



BRISTOL INTERNAL AUDIT

INTERNAL AUDIT ACTIVITY REPORT FOR THE PERIOD OF 1 April 2019 to 31 August 2019



1. Introduction

- 1.1 The role of the Internal Audit function is to provide Members and Management with independent assurance that the control, risk and governance framework in place within the Council is effective and supports the Council in the achievement of its objectives. The work of the Internal Audit team should be targeted towards those areas within the Council that are most at risk of impacting on the Council's ability to achieve its objectives. In addition, the team provide a Counter Fraud Service to the Council to enhance arrangements for the prevention, detection and investigation of fraud.
- 1.2 Upon completion of an audit, an assurance opinion is given on the effectiveness of the controls in place. The results of the entire programme of work are then summarised in an opinion in the Annual Internal Audit Report on the effectiveness of the internal control, governance and risk management arrangements within the organisation.
- 1.3 This second activity report provides the Audit Committee and Management with an update on the work completed by the Internal Audit team for the period of 1st April to 31st August 2019.
- 1.4 Additionally, the report provides an update on the approved Annual Internal Audit plan and highlights any proposed changes thereof, as well as updates in the following areas:
 - Outcomes from internal audit and counter fraud activities including summaries of completed audit reviews where the level of assurance was concluded as 'Limited'
 - Internal Audit Resources, as required by the Public Sector Internal Audit Standards (PSIAS)
 - Grant certification
 - Recommendation Implementation status
 - Counter Fraud Activity
- 1.5 Full details of all of the Internal Audit work completed or in progress at the half year stage will be provided in the Half-Year report which is presented to the Committee at its November meeting.

2. Key Messages

- Further work is required to improve the control environment and strengthen management assurance arrangements as well as streamlining audit processes to ensure the organisation makes sufficient progress in moving from the 'Limited' Assurance opinion in the last three years to a more positive position in future years.
- The Audit Plan is constantly under review to reflect the fast changing operating environment as well as ensuring that the Internal Audit Service has the capacity and capability to deliver the assurance requirements on the plan;
- 10 grants with a total value of £13.7m have been certified to date with no compliance issues identified;
- Counter Fraud work has identified circa £448k recoverable savings to date in 2019/20;

- Recommendation implementation rate at 47% fully implemented, when compared to 75% target. Limited follow up reviews have however been completed.

3. Updates

3.1 Annual Risk Based Internal Audit Plan Status:

Work completed to date included finalising audit reviews that were carried forward from 2018/19 and completion of some of the reviews on the 2019/20 Audit Plan. Table (1) below provides details of the reviews finalised in the period, together with the level of assurance obtained in each review. Where reviews have concluded a 'Limited' level of assurance during quarter 2, summaries providing the reasons and remedial actions agreed are also provided at Appendix A to this report. As per Table (1), out of the 18 engagements finalised 9 had a 'Limited' assurance conclusion highlighting the need to prioritise any initiatives to strengthen the control environment.

Internal Audit continue to work with management in order to facilitate improvements in the control environment, this includes:

- Improving engagement with the business by implementing a new client engagement model that enables greater understanding of the business
- Early and continuous involvement of service management in the audit process
- Working collaboratively with service management in developing robust management actions required to addresses any weaknesses identified during audits.
- Reviewing the process for following up, monitoring and reporting the implementation of agreed management actions.

Progress in the delivery of the approved 2019/20 Audit Assurance Plan is behind schedule, as the percentage of the plan completed to draft report stage at this point in the year is, 22% against a target of 30%. Resources expended in the completion of brought forward work from 2018/19 has exceeded that which was planned and this has impacted on the number of reviews from the 2019/20 Assurance plan that have reached the draft report stage in the period. Resource matters are further discussed in Section 3.3 below.

By necessity, the Audit Plan must be flexible to ensure it remains relevant to risks facing the Council throughout the year. Consequently, a high level review of the plan has been undertaken resulting in a proposal to defer all project / programme assurance and assurance mapping activities not yet started to enable Internal Audit to build capacity and capability in these two key areas. The proposed changes are summarised in Table (2).

Table (1) all assignments completed to date:

No.	Assignment:	Level of Assurance:	Commentary:
1	Housing Options – Payment to voluntary groups	Reasonable	Satisfactory level of control – no issues identified.
2	Business & Service Planning	Reasonable	A good framework has been rolled out, but requires time to fully embed.
3	Financial Review of Park Cafes	Reasonable	Good controls within the limitations of current technology.
4	Public Health Ring-Fenced Grant Governance	Reasonable	Grant returns have been made in the appropriate format and within the specified

No.	Assignment:	Level of Assurance:	Commentary:
			timescales. All expenditure review was appropriate under the grant rules.
5	Care Act – Deferred Payments	Reasonable	Charges were appropriately placed on relevant properties. Guidance is available to service users who may be subject to a charge on their property.
6	Colston Hall – Initial Project Governance	Reasonable	Project objectives directly support the key commitment to ‘Keep Bristol a leading cultural city’.
7	Bribery & Corruption	Reasonable	Good management awareness within the areas reviewed of the risks associated with bribery and corruption.
	Risk Management Review 2018/19	Reasonable	A reasonable risk management framework is now in place, but it requires time to fully embed.
	Schools Financial Governance Study	N/A	Overarching summary provided at Appendix A
8	Apprenticeship Levy Account	Limited	Summary provided to July 2019 Committee.
9	IT Project Management Approach (Design & Security)	Limited	Summary provided to July 2019 Committee.
10	Effectiveness of the New Procurement Arrangements	Limited	Summary provided at Appendix A
11	Data Sharing with Partners	Limited	Summary provided at Appendix A
12	Financial Interfaces	Limited	Summary provided at Appendix A
13	Direct Payments - Full Study	Limited	Summary provided at Appendix A
14	Traffic Control Services Cloud/Resilience (Operations Centre)	Limited	Summary provided at Appendix A
15	Strengthening Families Transformation Phase II	Limited	Summary provided at Appendix A
18	Information Technology (IT) Transformation Programme	Limited	Summary provided in separate report to this Committee meeting. The item is to be considered in confidential session to avoid likely disclosure of exempt information under paragraph 3 of part 1 of schedule 12 A of the Local Government Act

Table 2 – Proposed Plan Amendments:

No.	Reasonable Assurance Area	Assignment	Description
1	Programmes and Projects	Programmes and Project Assurance	Contingency allowance for ongoing embedded assurance to key programmes and projects across the Council.
2	Risk Management	Assurance Mapping provision - To review the effectiveness of mitigating actions to manage the risk identified in the Corporate Risk Register	Contingency allowance for working with management to develop assurance maps that identify and record the key sources of assurance on the management and mitigation of key strategic risks to the Council ensuring that the identified sources are well coordinated.

3.2 Grant Certification:

To date, the team has audited and certified 10 grant claims to the value of approximately £13.7m. Work is progressing on further certifications in quarter two.

3.3 Resources:

Since the beginning of the year, the Service has been carrying vacancies in the Assurance and the Counter-Fraud Teams, as well as being impacted by long-term sickness. These vacancies are currently being assessed as part of a wider review to determine the nature and level of resources required to effectively deliver the 2019/20 Audit Plan as well as exploring options for building capacity and capability that can meet the complex assurance needs of the Council now and into the future.

2019/20 is viewed as a transition year, both in terms of a new Chief Internal Auditor and the delivery of the Service's key priority of fully automating its processes as well as increasing the use of data analytics. The proposal to defer the two reviews cited in Table 2 above will also free the time for the Service to build capacity, develop relevant methodologies and deliver the audit automation project. The automation project is not only key to improving internal audit efficiency and effectiveness but will enhance management arrangements for monitoring and reporting agreed management actions. This will also enable Internal Audit to provide deeper insights to the business as well as enrich the audit customer experience.

3.4 Counter Fraud Update:

- The Committee will receive full reports on counter fraud work undertaken by the team in November 2019 (half year) and May 2020 (Annual). To update, however, the following represents the significant outcomes of fraud work for the year so far:
- 13 housing properties have been recovered as part of the continued tenancy fraud initiative;
- 1 property recovered as a result of National Fraud Initiative (NFI) intelligence
- £443k in recoverable saving have already been identified this year
- Key Amnesty – Please see section 3.5.1 below for outcome details

Fraud Area	Recoverable	Notional	Weekly cost avoidance
Tenancy Fraud	£37,830	£1,302,000	£1,262
Benefits	£308,463	-	£690
Council Tax Reduction	£1,650	-	£413
Direct Payments	£5,298	-	£268
NFI	£25,149	-	-
NFI HMRC Pilot	£66,758	-	-
Pool Car Misuse	£2,849	-	-

Figures used for notional savings are: Council property recovered = £93,000 (figure recommended by Cabinet Office)

NB: The above does not reflect the extent of recovery of any savings.

3.4.1 Key Amnesty Outcomes:

As Members are aware, the Counter-Fraud team instigated a Tenancy Fraud campaign whereby a Key Amnesty exercise was undertaken during the period of April to May 2019. A summary of the outcomes from the exercise is provided below:

- 470% increase in referrals has resulted with 30 cases currently being actively investigated
- 1 voluntary surrender of keys (BCC)
- 7 voluntary surrender of keys during the amnesty period for 'no apparent reason' by people previously or currently subject to tenancy fraud investigation
- 2 - 3 United Housing Association regains

Work on the referrals received will continue throughout the next quarter, with a further update provided to the Committee in the Counter-Fraud Half Year report at the November Audit Committee meeting.

3.5 Recommendation Implementation:

A limited number of Follow Up reviews have been completed during the period and an analysis of the rate of implementation of recommendations is summarised in Table (3) below. For the 4 concluded Follow Up audits in this period, 94% of recommendations were either fully (47%) or partially (47%) implemented against a target of 75% fully implemented. This target has been revised from the 2018/19 target of 90% fully/partially implemented, as only fully implemented recommendations can maximise the impact on the control framework and the level of assurance that can be derived from that framework.

For each of these Follow Up reviews, the objective was to test whether the recommendations identified in the original audit report had been implemented. Internal Audit continues to work with management to improve the control environment, as detailed in section 3.6 below. Internal Audit can supply further details to Members on any of the reports detailed in table (3) if required.

Table (3) Summary of Implementation of Internal Audit Recommendations:

Follow Up Review:	Date of Org. Report	Total Recs:	Implemented or Superseded		Partially Implemented		Not Implemented		Total:
			H	M	H	M	H	M	
Security Services Cash - in- Transit (Further follow-up)	30/06/2017	4		2		1		1	4
Sale of Council Assets (follow-up)	07/09/2017	5		2		3			5
Contract Management: Council Wide	31/03/2019	5		2	3				5
Carbon Reduction Commitment	15/10/2018	3		2		1			3
Totals:		17	0	8 (47%)	3 (18%)	5 (29%)	0	1 (6%)	17

3.6 Proposed changes to internal audit reporting

It is proposed that Internal Audit will no longer make audit recommendations as a standard requirement in Internal Audit reports. This is meant to enhance the value of audit outcomes and importantly address some of the challenges faced in the implementation of agreed audit recommendations as well as increasing management ownership and accountability. The proposed process will see Internal Audit drafting reports highlighting the findings or weaknesses, their causes and the associated risks and implications. Internal Audit will then engage with the Senior Responsible Officers to agree the appropriate management actions required to address the weaknesses identified. This collaborative approach will ensure that the agreed management actions are business driven and management takes full responsibility for the implementation and reporting of the actions. The process for monitoring the implementation of the agreed management actions will be embedded in the performance management arrangements at Service level.

3.6 Proposed Revised Internal Audit Opinions:

Internal Audit has given further consideration to the proposed revision to the assurance opinions in light of the feedback received from Members, at the July 2019, Audit Committee regarding the level of assurance that can reasonably be provided. The proposed new opinions which align with the annual opinion and are consistent with Audit Committee reporting are detailed below. These changes are supported by CLB and consultation with the wider management team is scheduled for September. The changes will come into effect once this engagement is completed.

Level of Assurance	Definition
Substantial	There are sound risk management, internal control and governance processes which are designed to achieve the service objectives, with key controls being consistently applied.
Reasonable	Whilst there is basically sound risk management, internal control and governance processes, there are some weaknesses which may put service objectives at risk.
Limited	There are weaknesses in the risk management, internal control and governance processes; putting service objectives at risk.
No	The risk management, internal control and governance processes are generally poor and as such service objectives are at significant risk.

APPENDIX A - SUMMARIES OF COMPLETED AUDITS

A. Corporate

A1. Data Sharing with Partners

The General Data Protection Regulation (GDPR) 2016 protects citizens' rights in relation to how their personal data is used. It came into effect on 25th May 2018 and non-compliance can result in significant fines. The Regulation sets out certain restrictions and conditions when the authority shares personal data with third party organisations. This is to ensure that personal data is protected adequately and handled properly by others.

In response to the requirements of the GDPR, the Council has implemented a requirement for Data Sharing Agreements when sharing personal information with third parties to ensure that the obligations of the data controller (the person or organisation that decides why and how personal data is processed) and the data processor (a person who processes the data under contract on behalf of the Data Controller) are met and that citizen's rights are protected.

The purpose of this audit was to review the arrangements in place for data sharing agreements where personal data is passed between the council and external organisations. Specifically the audit reviewed:

- Leadership and Governance
- Policies and Procedures
- Training & Understanding
- Review of Data Sharing Agreements
- Monitoring arrangements

The audit excluded internal data sharing arrangements.

Based on the completion of the fieldwork, an unsatisfactory opinion was assigned and **Limited Assurance** given. The key findings identified in the Internal Audit review were:

- The Council has formed an Information Governance Service (IGS) with objectives of implementing and embedding an information governance framework across the Council. This includes overseeing compliance with all aspects of information governance (data protection; information security; information management; records management, information and subject access requests and training) including compliance with GDPR. However the team are not currently resourced adequately to meet its full objectives.
- The role of IGS needs to be communicated across the council so that services understand the support and assistance it can provide in the areas of data sharing as well as its wider remit. Nominated points of liaison with the IGS would benefit services.
- Guidance and template documentation has been provided to services via a data sharing web portal however it is in need of review and updating to enable services to better understand and meet their obligations.

- Data sharing agreements are being used but adequate sign off was not in place for 70% of the sample reviewed. Sign off was either not by the Information Asset Owner as required or the agreements had not been signed at all.
- Governance and oversight arrangements, by the IGS, over data sharing agreements are hindered by outdated registers of information asset owners and incomplete Information Sharing Agreement Registers.

The audit identified areas for improvement, for which 12 recommendations were made, which included:

- Benchmarking the resourcing requirements of the Information Governance Service so that it can carry out and delivery its statutory function.
- A regular review process to ensure that the correct information governance custodianship is kept up to date.
- Monitoring of data sharing agreements by the IGS to ensure that they comply with the terms agreed and are correctly approved.
- Ensuring services are aware of the need and maintain Data Sharing Registers on Sharepoint and if no register is in existence, that immediate action is taken to create one.
- Review of agreements by the Statutory Data Protection Officer to confirm records and arrangements are appropriate.

All recommendations, including those detailed above, have been provided to management, and agreement has been obtained as well as appropriate implementation time scales.

B. People

B1. Schools Financial Governance Study

Bristol City Council (BCC) has responsibility for 71 maintained schools city-wide, with a combined budget of £134m for 2018/19 financial year, which is devolved to each individual school to manage year on year.

There is a level of financial acumen required to manage a school budget which should be drawn from the school governors, head teachers and finance leads within the school, with support from the Council's Trading with Schools (TWS) arm and the Finance function. The level of financial skills and experience within schools has historically been varied, as identified by numerous internal audit reviews of individual schools in past years.

Due to this variable, Internal Audit made the decision to undertake an in-depth study of the level of financial understanding across the 71 schools under the Council's responsibility, while at the same time taking the opportunity to understand the level of understanding that existed within schools with regards to fraud awareness and the whistleblowing process.

An extensive amount of data was collected as part of this study, too much to summarise in a report, however a summary of the key finding and conclusion drawn from the study is provided below:

- 87% of schools responded either directly or as a result of an Internal Audit visit;
- 71% of respondents stated that the Governing body has approved a scheme of delegation;
- 61% of respondents either had a Fraud Policy or access to one, with 60% of schools having Fraud and Whistleblowing policies that were communicated and appropriately accessible;
- 69% of respondents confirmed that the governing body have a good understanding school funded and schools financial reporting requirements;
- School Development Plan forecasting and costing was inconsistent;
- Whilst the number of schools in deficit for 2018/19 had decreased, (9 in 2018/19 against 14 in 2017/18,) the number of schools forecasting a deficit within the next four years increases to 24 by 2022/23;
- There is no correlation between Ofsted ratings against the assessed level of financial governance within schools

Overall, 48% of schools were rated as having "Good Financial Governance", with 18% of schools rated as having "Reasonable Financial Governance", and 34% rated as having a level of Financial Governance that was in need of improvement.

Recommendations for improvements were made and agreed by relevant responsible officers. Implementation of said recommendations will be monitored as part of the ongoing Schools audit programme for 2019/20.

B2. Direct Payments Joint Review

The Direct Payments scheme gives service users in both Adults and Children's services, the funding to directly commission their own care, rather than follow the traditional route of commissioning care from the Council.

The objective of this assignment was to provide an independent opinion on the adequacy and effectiveness of the Council's governance, risk management and internal controls in respect of Direct Payments made to both Adults and Children, including the risk of fraud.

Based on the completion of the fieldwork, a **Limited Assurance** Audit opinion was assigned. The key findings are summarised as follows:

- The Direct Payments Policy 2010 is out of date and does not reflect The Care Act 2014 and Regulation.
- The Regulations do not specifically require recovery of "excessive contingencies", however this is the Council's most common reason for Direct Payment recovery.
- Finance has begun standalone financial probity reviews.
- Financial reviews allow four weeks of contingency, when the current policy states eight weeks.
- The Care Act 2014 requires that care reviews are carried out annually at a minimum, with the emphasis on care needs, self-determination, safeguarding and financial probity; however in 2018/19 only 13% of adult service users were recorded as having received a review.
- Although legislation for children does not specify annual care reviews, in 2018-19 53% were recorded as having had an annual care review.
- Children Social Care relies on spreadsheets with their inherent data integrity issues to manage direct payments.
- No link is documented between the Children's spreadsheet and the payment schedule it generates.

The audit identified 15 **areas for improvement**, of which 4 recommendations were high priority. The high priorities are:

- The need for a new Direct Payment Policy, which incorporates Children's Services, the current requirements of The Care Act 2014 (and its regulations) and The Children & Families Act 2014.
- The requirement for the Direct Payments Team to obtain legal advice about the appropriateness of recovering "excessive contingencies" without first doing a care review.
- The Development of a care review process, including initial reviews and annual reviews. Focussing these reviews on the care needs of the client and satisfying the Council's safeguarding responsibilities.
- To extend the care review process to include financial probity reviews, with emphasis on those clients who are likely to be an employer.

All recommendations, including those detailed above, were discussed with the appropriate management and agreement to implement within an appropriate timescale was obtained.

B3. Strengthening Families Transformation Programme – Second Embedded Assurance Review

The Council's vision for children and families in Bristol is that they get the "right response, the right assessment, the right help, at the right time".

The Statement of Intent for the Strengthening Families Programme is to make cost savings whilst holding our ambition of improving outcomes, commissioning and delivering quality services and keeping "children and families" at the heart of what we do.

This is the second embedded assurance review Internal Audit has carried out on this programme. The first review, which was carried out in 2018, focussed on the first two stages of the programme, Start up and Initiation and concluded a **Reasonable** level of assurance.

This second review focussed on stage three of the programme – Delivery, providing assurance on the following areas:

- **Financial Benefits** – previous audit recommendations, measuring outcomes, reviewing responses to changes in scope and VFM
- **Risk Management** – review of project risk register
- **Governance (strategy & decision-making)** – previous audit recommendations, effectiveness of recording systems
- **Cost Management** – review of budgetary control systems
- **Communication** – review progress reports to stakeholders, consider efficiency of escalation measures

Based on the fieldwork completed a **Limited** level of assurance was concluded. This was predominantly due to concerns that the financial benefits of the programme may not be achieved. Other findings from the review are summarised below:

- **Project Plan:**
 - A detailed five year plan was prepared for Cabinet at the approval stage with key events and an annual timeline. The detailed five year plan was costed with assumptions being made for the impact of specific events.
- **Benefits and Savings (Costs and Outcomes):**
 - Programme performance reporting is not straight forward.
 - Teams need to keep under review how they intend to deliver the programme savings once the programme has been handed over.
 - Key information to support handover to service teams requires finalisation and this is in progress.
- **SMART Measures:**
 - Project objectives have clear measures, however these measures are not always presented in reporting as SMART KPI's.
 - There is no reporting of the progression pathways of cared for children.
- **Active Risk Management:**
 - A key risk of increasing children numbers in Bristol is not included on the RAID risk log.
 - Risks are managed through a RAID log, however there are errors in the recording and progress of risks to mitigation.

The audit identified 9 **areas for improvement**, these included:

- The need to revise savings and success of the programme in order to reflect the remainder due after 30th September 2019 when the Project Management Office (PMO) support finishes.
- The need for Service Teams to regularly re-evaluate the saving expectations and refer to EDM and Finance Partners. Finance should be kept informed about revised savings expectations.
- That all SMART KPI's should be measured numerically. Prior month numeric to be included in the report and changes explained. Service Teams to continue to enhance pathway analysis for all new children entering care.

All recommendations, including those detailed above were discussed with the relevant officers.

Internal audit will be carrying out a third review at the end of September 2019, when the PMO hands over full delivery of the programme to the Service Teams.

C. Resources

C1. Financial Systems Interfaces

The Council uses Unit4 Business World (ABW) as its online corporate finance system to record financial transactions to enable budget monitoring and the preparation of the Council's annual financial statements and accounts.

Information is passed between ABW and other Council applications through automated or semi-manual data exchanges, which are recognised as input and output ABW interfaces. The business objective of the ABW interfaces is to provide a secure, robust and resilient methodology to transfer financial information between ABW and other applications.

The risks associated with the ABW interfaces were assessed as follows:

- Unreliable communication between systems necessary to support business activities and management decisions.
- Data integrity, completeness of information.
- Data security.
- Malfunctioning interfaces affecting data integrity and discrediting financial reports with a significant negative influence on business decisions.

The objective of the assignment was to provide an independent opinion on the adequacy and effectiveness of the Council's governance, risk management and internal controls regarding input and output ABW interfaces.

Based on the completion of the fieldwork, a **Limited** Assurance Audit opinion was assigned. The key findings from the review are summarised as follows:

- Internal Data Sharing Agreements were not in place to comply with GDPR requirements
- Undocumented ABW interfaces without formal change control
- Obsolete interfaces with no process for review to ensure such interfaces are promptly deleted
- Data Security issues
- High reliance is placed on manual interaction, which increases risk and impacts on resources
- Failure to identify incomplete files at download stage resulting in the need for further manual intervention.

A number of Audit recommendations were made to help address the level of assurance in this area, they included:

- The need for a data flow assessment of all of the financial systems that flow into ABW.
- The benefits of an interface specification for each current interface, with all changes to interfaces documented, and appropriate document control management
- A review of current interfaces and deletion of those which are now obsolete. This practice should be incorporated into 'business as usual' so obsolete interfaces are promptly deleted
- Confirmation with data security requirements
- Inbound interfaces should be reviewed for the possibility of full automation.
- A resolution to the issue of incomplete files needs to be urgently sought.

All recommendations have been provided to management, and agreement has been obtained, with appropriate timescales for implementation.

C2. Effectiveness of the New Procurement Arrangements

A new Category Management 'Hub and Spoke' approach was agreed by the Director of Finance in November 2018. This comprised a centralised procurement resource to act as the main hub for leading and managing the way procurement and contract management is undertaken Council wide, through the procurement cycle.

The purpose of the assignment was to evaluate the effectiveness of implementation of the new approach. Specifically, the audit approach included the following:

- Review of approach towards new ways of delivery
- Progress made towards delivering the approach
- Effectiveness of new approach in ensuring consistent good contract management across the Council and ensuring the Council's Procurement Rules are adhered to.

Based on the completion of the fieldwork, an opinion of **Limited Assurance** was assigned. The audit identified areas for improvement, which included;

- The need for full agreement to the new approach and a supporting action plan
- The establishment of clear lines of responsibility for ICT contracts
- An agreed process for preparing and updating Category Plans together with a timescale for implementation of 2019/20 plans
- Establishment of a clear escalation process to identify and stop out of contract payments
- The use of Client Engagement Plans together with clear procedures, including lines of responsibility and communications between Category Managers and clients (contract managers)
- Improved management information and reporting
- Establishment of an overarching Contract Monitoring framework, with consideration to the size, value and complexity of the procurement
- Training and support to be provided when overall Category management approach has been finalised
- Provision of standard documentation, according to Category and type of contract
- Ensuring that procurement and contractual risk is considered in Service Plans and escalated where appropriate.

All recommendations have been provided to management, and agreement has been obtained together with appropriate implementation time scales.

D. Growth and Regeneration

D1. Traffic Control Services – Cloud and Resilience

The Operations Centre is part of the Smart City agenda, focused on the needs of the citizens and aided by an information platform geared towards the safety needs of citizens. The project brings together Traffic Management, Bus Lane Enforcement, Public Space Monitoring, Out of hours, Concierge and Telecare Services. The Operations Centre relies on a sound technological infrastructure which is provided via the ICT service.

The objective of the audit was to review the cloud based technologies in use at the operations centre to ensure security and resilience of operations. Currently, only the Traffic Control Services has a cloud platform, which is third party hosted, and as such the audit work covered arrangement in this service only.

Specifically the audit reviewed:

- Governance arrangements over 'cloud' and its resilience.
- System and data security controls at the interfaces between Bristol architecture and third party and telecommunications infrastructure.
- Third party hosting arrangements.
- Business Continuity, including back-up and recovery.

Based on the completion of the fieldwork, a **Limited** level of assurance was concluded, with a number of areas identified for improvement. The key findings identified were:

- Systems and data security arrangements in the 'cloud' (third party arrangements) were satisfactory and to industry standard
- The third party has best practice business continuity plans which are appropriately tested
- Security, governance and business continuity arrangements within the Traffic Control Service were not to industry standard.

The audit identified areas for improvement, for which 10 recommendations were made to the Traffic Control Services Manager, which included:

- Updating and testing business continuity plans
- Testing of failover processes
- Reviewing the operational level agreement with the ICT service to align support to full operating hours
- Testing the emergency generator to ensure resilience against power outage
- Improvement to a number controls to enhance resilience and security.

All recommendations, including those detailed above, have been provided to management, and agreement has been obtained as well as appropriate implementation time scales.