

TRANSPORT FOR LONDON

AUDIT COMMITTEE

SUBJECT: DATA QUALITY REVIEW – 2007/08

DATE: 25 NOVEMBER 2008

1 PURPOSE AND DECISION REQUIRED

1.1 As part of its assessments of TfL, the Audit Commission conducts an annual review of the arrangements for securing data quality across the Group. This judgement forms part of the Use of Resources assessment.

2 BACKGROUND

2.1 This review determines whether TfL has in place proper corporate management arrangements for data quality, and whether they are being applied in practice. This is the third year in which this work has been undertaken on data quality.

2.2 Work is undertaken by KPMG in their role of appointed auditor for TfL, using a series of statements ('Key Lines of Enquiry') prescribed by the Commission. As part of their work, KPMG also performed a number of checks against specific Best Value Performance Indicators (BVPIs). This is the last year in which there will be a separate review of data quality (see separate paper on Audit Commission developments), since data quality will be taken forward as part of the overall organisational assessment, and the BVPIs have been replaced by a new 'National Indicator' set (NIs) which are reported separately, and relate mainly to area outcomes rather than organisational specific outcomes.

3 CONCLUSION

3.1 Overall, TfL scored as performing well (3 out of 4), consistent with the overall score from last year, although there have been a number of improvements in specific areas.

3.2 TfL has 'performed strongly' (the highest level) in respect of the arrangements over systems and processes and data use and reporting. However, further improvements have been recommended by the external auditors in respect of governance and leadership. The attached report outlines the key findings and management responses to specific recommendations.

4 RECOMMENDATION

4.1 The Audit Committee is asked to NOTE the report and the KPMG findings that TfL's overall performance has been assessed as performing well.

5 CONTACT

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GOVERNMENT

**Data Quality
Review
2007-08**

**Transport for London
7 November 2008**

AUDIT

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1. Recommendations
2. Prior year recommendations

This report is addressed to TfL and has been prepared for the sole use of TfL. We take no responsibility to any member of staff acting in their individual capacities, or to third parties. The Audit Commission has issued a document entitled Statement of Responsibilities of Auditors and Audited Bodies. This summarises where the responsibilities of auditors begin and end and what is expected from the audited body. We draw your attention to this document.

External auditors do not act as a substitute for the audited body's own responsibility for putting in place proper arrangements to ensure that public business is conducted in accordance with the law and proper standards, and that public money is safeguarded and properly accounted for, and used economically, efficiently and effectively.

If you have any concerns or are dissatisfied with any part of KPMG's work, in the first instance you should contact June Awty who is the engagement lead to TfL, telephone 0207 311 6496 email june.awty@kpmg.co.uk who will try to resolve your complaint. If you are dissatisfied with your response please contact Trevor Rees on 0161 246 4063, email trevor.rees@kpmg.co.uk, who is the national contact partner for all of KPMG's work with the Audit Commission. After this, if you still dissatisfied with how your complaint has been handled you can access the Audit Commission's complaints procedure. Put your complaint in writing to the Complaints Team, 1st Floor, Millbank Tower, Millbank, London or by e mail to: complaints@audit-commission.gov.uk. Their telephone number is 0844 798 3131, textphone (minicom) 020 7630 0421.

Executive Summary

The Audit Commission has developed a three-stage approach for assessing data quality, the first stage being a review of management arrangements for data quality. This review determines whether Transport for London TfL has in place proper corporate management arrangements for data quality, and whether they are being applied in practice. This is the third year in which we have undertaken work on data quality.

The findings support our conclusion on your arrangements to secure value for money in relation to the specific criterion on data quality. This requires TfL to have 'a track record of using high quality information on costs to actively manage performance, improve value for money and target resources'.

Stage One

The work on management arrangements focuses on corporate data quality arrangements for your performance information. One of the aims of our work is to help drive improvement in the quality of performance information, leading to greater confidence in the supporting data on which performance assessments are based. The review is structured around five themes:

- Governance and leadership;
- Policies and procedures;
- Systems and processes;
- People and skills; and
- Data use and reporting.

These themes break down into thirteen Key Lines of Enquiry (KLoEs). We have assessed your arrangements against each KLoE and have scored you against each theme as defined below:

Level	Description
Inadequate	Below minimum requirements - inadequate performance
Adequate	Only at minimum requirements - adequate performance
Performing well	Consistently above minimum requirements - performing well
Performing strongly	Well above minimum requirements - performing strongly

We have assessed your overall performance as performing well. You have performed well in respect of your arrangements over policies and procedures and people and skills. You have performed strongly in respect of your arrangements over systems and processes and data use and reporting. However, further improvements are required in respect of your governance and leadership specifically in respect of data quality.

We have provided our key findings in Section One and have raised 4 recommendations, summarised in Appendix 1. We report on the implementation of prior year recommendations in Appendix 2.

Executive Summary

Stage Two

During Stage Two of the process we followed up issues arising from the analytical review of 2007/08 BVPI and non-BVPI data, used in the Comprehensive Performance Assessment carried out by the Audit Commission. This analytical review informed our selection of a sample for testing at Stage Three.

Stage Three

When deciding how many and which PIs to review at Stage Three, in addition to those identified for review by the Audit Commission, we used the results from stage one and our cumulative audit knowledge and experience to determine the total number of PIs for review. As part of the 2006/07 BVPI audit we identified a number of issues around data accessibility from contractors undertaking street lighting repairs which led to reservations in respect of BVPI 215a and b. As there have been changes to the way in which these contracts are managed and due to the issues previously these have been selected for testing again in the current year. The focus of the KLoEs this year on partnership working and sharing information means that this area is of particular interest given the close working relationships with third parties. As a result of this, we have identified two BVPIs to review. The following were selected:

- BVPI 215 a & b – Rectification of street lighting – non DNO & DNO
- BVPI 165 – Pedestrian crossings with facilities for disabled people

The results of these spot check reviews indicate that the data quality underpinning your PIs is adequate and there have been some notable improvements since 2006/07, although reservations have been issued for BV 215 a & b due to continuing issues with the information provided by contractors in the North region and because of the lack of fully functional systems. However, improvements from the prior year were noted in the South and Central regions. Also, a reservation has been issued in relation to BV165 relating to pedestrian crossing facilities for disabled people due to the data base providing information only at the last date of inspection, which may not be up to date following, for example, vandalism.

The results of our data quality spot checks are summarised in Section Two.

Best Value Performance Plan Report

In prior years we reviewed your Best Value Performance Plan in accordance with the Local Government Act 1999 and the Audit Commission's Code of Audit Practice. From 2007/08, there is no requirement for this to be audited.

Management Arrangements

We have assessed your **overall level of performance as performing well**. You have performed strongly in respect of your arrangements over KLoES 3.1, 3.2, 3.3, 5.1 and 5.2. You have performed well in respect of your arrangements over KLoEs 1.1, 2.2, 3.4, 4.1 and 4.2. However, further improvements are required in respect of your arrangements over KLoEs 1.3 and 2.1. Details of how these improvements can be made can be seen at Appendix 1.

The table sets out key drivers behind each theme, and details areas where you are currently meeting requirements and areas where further development is required.

Theme	2006/07 results	2007/08 results	Key issues
Governance & Leadership	Adequate	Adequate	<ul style="list-style-type: none"> ✓ You have a corporate Data Quality Strategy with the CFO having overall responsibility for Data Quality with day to day responsibility falling to the Director of Business Planning and Reporting. (KLoE 1.1) • There has been a lack of progress in embedding the network of data quality Champions and associated reporting framework, and developing their roles. (KLoE 1.1 and 1.3) • Linkages between data quality and strategic aims could be further improved. (KLoE 1.2)
Policies & Procedures	Performing well	Performing well	<ul style="list-style-type: none"> ✓ All staff can access the Data Quality strategy via the TfL intranet. Any changes to policies relating to data/information-such as the Freedom of Information Policy are cascaded to all employees through departmental reporting lines as well as through the intranet. (KLoE 2.2) • You have developed a Data Quality Strategy which is supported by a number of other policies and procedures. These are fully available to staff via the intranet. However, the data quality strategy has not been formally approved. (KLoE 2.1)
Systems & Processes	Performing strongly	Performing Strongly	<ul style="list-style-type: none"> ✓ The SAP Data Management Team have been utilised to test and comment on the accuracy of SAP data (financial and non financial) on a four weekly basis. This annual report stated that data quality has improved throughout the period ranging from 91-98% accurate. (KLoE 3.1 and 3.2) ✓ You have integrated arrangements for collecting, recording and compiling data into your wider business planning. (KLoE 3.3)
People & Skills	Adequate	Performing well	<ul style="list-style-type: none"> ✓ Staff are clear on their roles and responsibilities in relation to data quality. For relevant staff data quality objectives are included in their appraisal targets and within job descriptions. (KLoE 4.1) • No action plans are in place to address weaknesses identified through internal and external reviews. This includes a lack of dedicated data quality training modules. (KLoE 4.2)
Data Use	Performing strongly	Performing strongly	<ul style="list-style-type: none"> ✓ All data is subject to approval by senior management prior to external reporting. Action is taken to ensure that data is accurate and complete prior to publication. (KLoE 5.1) ✓ Reporting to the Board in the form of Operational and Financial reports and BMR reports is detailed and well supported through extensive data, which is checked before being published, as well as extensive accompanying narrative. (KLoE 5.2)

Data Quality Spot Checks

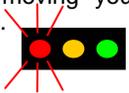
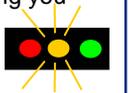
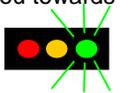
Our Stage Two and Three analytical review work identified that the PI values reviewed fell within expected ranges and were substantiated by evidence. We carried out spot checks on two of your PIs. As a result of our audit work no PIs were amended and reservations issued on one of the PIs as summarised in the table below.

PI	Description	Value stated	Conclusion
Spot Checks			
BV 165	The percentage of pedestrian crossings with facilities for disabled people	32%	<p>Reservation issued</p> <ul style="list-style-type: none"> We have observed that there is a departure from the standard up-stand allowance for kerbs up to a maximum of 15mm, which exceeds the total 9mm set out in guidance issued by the DfT (6mm plus 3mm for wear). We tested twenty crossings, eighteen of which were compliant per TfL records. In 2/18 cases they were found to be non compliant and the database stated that they were compliant. Due to the large number of crossings it is difficult for TfL to keep the database updated with unplanned changes to crossings (e.g. vandalism). As such they database holds information as at the last date of inspection if no works have taken place in that area. In these two cases the crossings had altered without the surveyor's knowledge hence it was not possible to ascertain at what point the crossing became non-compliant.
Reviews			
BV 215a	The average number of days taken to repair a streetlight fault which is under the control of the Local Authority	10.05	<p>Reservation issued:</p> <ul style="list-style-type: none"> Data captured for these PIs is sourced from contractors. 2007/08 was the first year of new contracts over three areas (reduced from five areas). These contract requirements specify data quality requirements included. A specific improvement is the introduction of the 98% target which encourages contractors to attempt to clear the backlog maintenance inherited through the old contracts. Recording of data is performed by the three area teams. These teams are subject to bi-annual audit internally. These audits revealed that the North area was unable to produce supporting evidence and thus we were not able to corroborate their figures. We were able to visit the sites of both South and Central teams and found that in both cases the quality of information had improved from the prior year. However the AIMS system, which will be used to record jobs, had not been implemented as intended on 01.04.08 and thus the standard content of supporting documentation was variable. The use of paper records by the central team gave rise to doubts over the accuracy of the figures which have been provided. The improvement in recording data since the prior year meant we were able to test whether the start date and completion date entered onto systems were correct for both South and Central. In all cases where information was available to check the time taken has been correctly calculated, However, there remain some elements of the data not included in contractor records. The use of AIMS by all contractors and by TfL should reduce prevent this going forward.
BV 215b	The average number of days taken to repair a street light, where the response time is under the control of a Distribution Network Operator (EDF)	33.89	

Appendix 1

Recommendations

This appendix summarises the recommendations we have identified relating to your data quality management arrangements. We have given each a risk rating (as explained below) and agreed with management what action you need to take.

Priority rating for recommendations		
<p>Priority one: Addressing these issues is essential to assist in moving you towards an improved rating.</p> 	<p>Priority two: Addressing these issues is desirable to assist in moving you towards an improved rating.</p> 	<p>Priority three: Addressing these issues will assist in moving you towards an improved rating.</p> 

No.	Priority	Recommendation	Management response	Officer and due date
1	● (two)	<p>Governance and leadership</p> <p>The Data Quality Board and Panel should provide leadership to the data quality agenda and support to officers involved in ensuring data quality.</p> <p>It should be considered whether the process could be rationalised through data quality Champions being represented on the panel thus enhancing the status of the Champions and minimising reporting lines.</p> <p>Data quality should also be considered at a more strategic level with business goals taking into account the need for robust data. This could be achieved through the development of an action plan to address weaknesses identified through this and other reviews. To support this the data quality strategy should be refreshed if necessary and authorised.</p> <p>Whilst the Data Quality Panel has developed a local risk register there is little evidence of this explicitly impacting upon the corporate risk register. There is thus a need to further embed data quality in risk management.</p>	<p>TfL will review the role of the Data Quality Champions and Data Quality Board, and establish action plans where necessary.</p> <p>Data Quality impacts on overall risk management will be considered.</p>	<p>Director, GBP&P</p> <p>Head of Risk Management</p>
		<p>Policies and procedures</p> <p>Data used by TfL in performance reporting can come from third parties, for example from the police or from private contractors. The data quality strategy is not primarily focussed on data sharing and thus a protocol should be developed whereby all data received from a third party is subject to scrutiny through checking and through contractual declarations of responsibility.</p> <p>This should include a policy on consulting with data providers when new systems are under development.</p> <p>The Data Quality Strategy should be formally approved.</p>	<p>A review of data quality implications will be taken forward as part of an overall review into TfL's commercial arrangements.</p> <p>TfL will review whether its Data Quality Strategy should be approved by the TfL Audit Committee.</p>	<p>CFO</p> <p>CFO</p>
3	● (three)	<p>People and skills</p> <p>The implementation of the new structure including Data Quality Champions, Data Quality Panel and Data Quality Board has not been effective due to the lack of drive behind the Champions and the infrequency with which the Panel and Board have met, which has led to the responsibility for data quality falling to managers.</p> <p>Clarity over roles and responsibilities is needed with close working between the business performance team and IM required. Relevant staff should be given targets around delivering tangible improvements in data quality. To ensure a standard approach in this way tailored training should be offered.</p>	<p>The Business Performance team will appoint a lead analyst to focus on Data Quality and be the primary interface with IM. Training will be considered.</p>	<p>Director, GBP&P</p>

Prior Year Recommendations

This appendix summarises the progress made to implement the recommendations that we identified in our previous Data Quality reports. We have outlined areas which we raised in our prior year report which have not been addressed in the current year, except for recommendations which have been superseded in appendix one above. The following recommendations therefore are to be addressed. In summary:

Theme	Recommendation	Progress made	Work needed (Y/N)	Update 07/08
Governance and leadership	<p>The governance arrangements you have put in place over the year are fully embedded and can demonstrate a positive impact to your performance on data quality.</p> <p>Your commitment to data quality is explicitly outlined in key strategic documents such as your corporate plan.</p> <p>Your commitment to data quality is fully integrated into your planning reporting and monitoring processes.</p> <p>You communicate your commitment to data quality to all staff. As part of this process you should undertake a review of staff awareness of data quality issues.</p> <p>Your Data Quality Strategy is fully linked to your corporate strategic objectives.</p> <p>There is a formal programme of data quality review. This should be proportionate to risk and reported to the Data Governance Board. It should include reporting on the accuracy of data supporting key performance indicators.</p> <p>Data quality is embedded into corporate risk management arrangements. You should undertake regular assessments of the risks associated with unreliable and inaccurate information.</p> <p>You undertake benchmarking exercises to review the effectiveness of your data quality monitoring arrangements.</p>	<p>The SAP data management team have been testing data throughout the year – although this is not reported to the data quality board. All other issues remain outstanding.</p>	Yes	See recommendations 1 and 2 above in appendix 1 above.
Policies and procedures	<p>Operational processes and guidance continue to be developed and updated.</p> <p>Relevant staff are now fully involved in the development and updating of data quality policies, procedures and guidance notes.</p> <p>Your data quality strategy explicitly states the requirements for data received from/passed to 3rd party sources.</p> <p>Data Champions provide regular formal reports on compliance which are reported to the Corporate Data Quality Champion and the Data Governance Board.</p> <p>Instances of failure of compliance with corporate policies and procedures and national standards, or poor performance against data quality targets, are investigated and corrective action taken.</p>	<p>As the data quality strategy has still not been formally approved there it has not been possible to note progress in this area. Furthermore the lack of progress made by data Champions has restricted progress.</p>	Yes	See recommendations 2 and 3 in appendix 1 above.
Systems and processes	<p>A formal set of data quality requirements is applied to all data you use which is shared externally, or which is provided to third parties.</p> <p>A series of internal reviews are planned covering the framework for data sharing.</p>	<p>No further progress.</p>	Yes	See recommendation 3 in appendix 1 above
People and skills	<p>You can demonstrate you have an effective team of data quality Champions that have successfully driven improvement.</p> <p>You can demonstrate you have assessed how well staff understand their data quality roles and responsibilities.</p> <p>Formal Data Quality objectives and standards are set for all relevant staff.</p> <p>Although some departments are addressing weaknesses identified from data quality reviews through training, this should be developed corporately.</p> <p>All data quality Champions receive enough training so as to have the necessary skills to perform their role. This could be addressed by regular formal training sessions.</p> <p>There are corporate arrangements in place to ensure that data quality training is periodically evaluated and adapted to respond to changing needs.</p>	<p>The Champions have not demonstrably driven improvements. In all other areas there has been no further progress,</p>	Yes	See recommendation 4 in appendix 1 above.