

NORTH LINCOLNSHIRE COUNCIL

AUDIT COMMITTEE

REVIEW OF DATA QUALITY

1. OBJECT AND KEY POINTS IN THIS REPORT

- 1.1 Inform the committee of the council's current position with regards to Data Quality
- 1.2 Seek approval for the Data Quality Action Plan attached at Appendix 2

2. BACKGROUND INFORMATION

- 2.1 Each year the council is subject to an audit of its data quality procedures by an external auditor which informs part of the Comprehensive Performance Assessment framework. Data quality is important for ensuring the robustness of data used to inform decision-making and to assess performance.
- 2.2 Following on from Grant Thornton UK's audit in 2006/2007 the council now has the Audit Commission as external auditors.

The data quality audit is based on a three-stage methodology:

Stage 1: Management arrangements review using Key Lines of Enquiries (KLOE)

Stage 2: Analytical review of Best Value Performance Indicator (BVPI) and non-BVPI data for testing based on risk assessment

Stage 3: In depth review of a sample of BVPIs and non-BVPIs to determine accuracy

- 2.3 At the end of the process a judgement is made based on the following:
 - Performing strongly - Well above minimum requirements
 - Performing well - Consistently above minimum requirements
 - Adequate performance - At only minimum requirements
 - Inadequate performance - Below minimum requirements
- 2.4 The council was assessed as **performing adequately** in 2005/2006 and following improvements in data quality arrangements this improved to **performing well** in 2006/2007

- 2.5 In January 2007 the audit committee agreed that the corporate performance team should strengthen its current position and be re-judged as performing well in 2007/2008. This reflects that the Key Lines of Enquiry get amended each year and get progressively harder to reach.
- 2.6 The Audit Commission has now completed our 2007/2008 review of data quality. The final report is attached at Appendix 1. Their findings in the report gives us a judgement of **performing well - consistently above minimum requirements**, achieving the desired level.
- 2.7 The auditors undertook detailed spot checks and tests on six performance indicators, following a couple of agreed amendments all six indicators were declared “fairly stated”. The table below shows the comparison and improvement over the last three years.

Result	Number of Indicators Fairly Stated	Number of Indicators Amended	Number of Indicators Reserved
2005/6	0	8	1
2006/7	6	0	2
2007/8	6	0	0

- 2.8 The auditors have made several recommendations in their report and these have been incorporated into our action plan for 2008/0909 Appendix 2

3. **OPTIONS FOR CONSIDERATION**

- 3.1 The first option for data quality is to remain static and do no further work on data quality.
- 3.2 The second option would be to review the recommendations of the external audit and the guidance from the Audit Commission and to strengthen our current judgement of **performing well** with aim of moving towards **performing strongly - well above minimum requirements** by the time of the 2009/2010 judgement. The action plan at Appendix 2 contains many actions to strengthen and improve our position.

4. **ANALYSIS OF OPTIONS**

- 4.1 The option to remain static, in 3.1, failing to address recommendations from the external auditors and to further develop our approach to data quality could have a negative effect on our judgement and adversely affect the new Comprehensive Area Assessment framework.
- 4.2 The second option in 3.2 enables us to continue to develop our approach to data quality. The action plan at Appendix 2 sets out the

steps that will improve our position. This plan includes developing data quality links with partners, improving controls within the Performance Management System, awareness and training. As well as services benefiting in their day to day operations as a result of trustworthy data, having robust systems and accurate data will enable the council to make sound decisions and will not adversely affect the data quality judgement under the Comprehensive Area Agreement framework.

5. RESOURCE IMPLICATIONS (FINANCIAL, STAFFING, PROPERTY, IT)

(Include in here paragraphs relating to the resource implications of the preferred option as appropriate)

5.1 Staff time in implementing the data quality action plan would be subsumed within current workloads

6. OTHER IMPLICATIONS (STATUTORY, ENVIRONMENTAL, DIVERSITY, SECTION 17 - CRIME AND DISORDER, RISK AND OTHER)

(Include in here paragraphs relating to other implications of the preferred option as appropriate)

6.1 Failure to produce robust data could affect our Use of Resources score under the Comprehensive Area Assessment framework

6.2 Using poor quality data could result in the loss of grant monies reliant on meeting robust targets

7. OUTCOMES OF CONSULTATION

7.1 The Auditor's Data Quality report and Data Quality Action Plan were discussed with the Corporate Performance Working Group on 11/12/08

8. RECOMMENDATIONS

8.1 That the Audit Committee approves the preferred option for data quality as identified at 4.2 and the action plan at Appendix 2 of this report.

CHIEF EXECUTIVE

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Background Papers used in the preparation of this report

Audit Commission: Data Quality - North Lincolnshire Council - (December 2008)

Audit Commission: Improving information to support decision-making: standards for better quality data (November 2007)

Data Quality

North Lincolnshire Council

Audit 2008/09

December 2008



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Status of our reports

The Statement of Responsibilities of Auditors and Audited Bodies issued by the Audit Commission explains the respective responsibilities of auditors and of the audited body. Reports prepared by appointed auditors are addressed to non-executive directors/members or officers. They are prepared for the sole use of the audited body. Auditors accept no responsibility to:

- any director/member or officer in their individual capacity; or
 - any third party.
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Introduction

- 1 The purpose of this report is to summarise the findings from our work on data quality for 2007/08.
- 2 Auditors' work on data quality and performance information supports the Commission's reliance on performance indicators (PI) in its service assessments for comprehensive performance assessment (CPA).
- 3 Our work on data quality is complemented by the Audit Commission's paper, *'Improving information to support decision making: standards for better quality data'*. This paper sets out standards, for adoption on a voluntary basis, to support improvement in data quality. The expected impact of the Audit Commission's work on data quality is that it will drive improvement in the quality of local government performance information, leading to greater confidence in the supporting data on which performance assessments are based.

Scope of our work

- 4 We have followed the Audit Commission's three-stage approach to the review of data quality as set out in Table 1.

Table 1 Data quality approach

Stage 1	Management arrangements A review using key lines of enquiry (KLOE) to determine whether proper corporate management arrangements for data quality are in place, and whether these are being applied in practice. The findings contribute to the auditor's conclusion under the Code of Audit Practice on the Council's arrangements to secure value for money (the VFM conclusion).
Stage 2	Analytical review An analytical review of 2007/08 BVPI and non-BVPI data and selection of a sample for testing based on risk assessment.
Stage 3	Data quality spot checks In-depth review of a sample of 2007/08 PIs all of which come from a list of specified BVPIs and non-BVPIs used in CPA, to determine whether arrangements to secure data quality are delivering accurate, timely and accessible information in practice. For 2007/08 PI spot checks, the Audit Commission specified that it is compulsory to review two housing benefits PIs at all single tier and district councils as a minimum.

Summary conclusions

Stage 1 – Management arrangements

- 5 The Council's overall management arrangements for ensuring data quality are consistently above minimum requirements.
- 6 There is corporate commitment to data quality, good progress has been made to address issues over the last few years and this has led to a reduction in the number of problems found during the audit.
- 7 The foundations are being put in place to incorporate data quality into the partnership agenda. These initiatives, when embedded should provide all agencies with a good basis to meet some of the forthcoming challenges associated with the introduction of Comprehensive Area Assessment.
- 8 The Performance Management framework is currently being reviewed to strengthen data quality elements.

Stage 2 – Analytical review

- 9 Our analytical review work at Stage 2 identified that the PI values reviewed fell within expected ranges/were substantiated by evidence.

Stage 3 – Data quality spot checks

- 10 Our review and spot checks of PIs found some issues with two out of the six PIs tested and amendments were agreed during the audit.
 - BVPI 165 Pedestrian Crossings was fairly stated after amendment. Originally, an incorrect definition had been used to calculate the indicator.
 - BVPI 78a Housing Benefits Speed of Processing: New claims. This indicator was fairly stated.
 - BVPI 78b Housing Benefits Speed of Processing: Change in circumstances. This indicator was fairly stated after amendment.
 - BVPI 199 Cleanliness of Public Spaces - Graffiti. This indicator was fairly stated.
 - H18 Percentage of Private Sector Homes vacant for more than 6 months. This indicator was fairly stated.
 - Non-BVPI Repeat Homelessness. This indicator was fairly stated.
- 11 An action plan has been agreed with the council (see Appendix 1) to address the issues arising from this review.

Detailed findings

Management arrangements (Stage 1)

12 Overall, the Council's corporate arrangements for data quality are consistently above minimum requirements.

Governance and leadership

13 There is top level commitment and support for data quality from the Head of Strategic Development. Accountability for data quality is defined within the performance management framework and data quality is considered as part of the performance appraisal system for senior staff. For other key staff, responsibility of every member of staff entering, extracting or analysing data is less clear.

14 Whilst there is a member with lead responsibility and there is some reporting to the Audit Committee via audit reports these could be made more effective by a greater focus on assessing and evaluating the controls rather than just reporting on the errors found. Members do not therefore get an overall summary of the assurances for all aspects of information governance.

15 The Council has also identified a number of service based data quality 'champions' who have been actively involved in strengthening data quality arrangements and who are keen and enthusiastic in implementing the necessary changes. This has seen a reduction in qualification of indicators over the last two to three years.

Recommendation
R1 Enhance member involvement by providing regular reports that evaluate the controls in place to give overall assurance for the all aspects of information governance.

Policies

16 Rather than a specific data quality policy, the Council's Performance Management Framework encompasses aspects of data quality and also contains a DQ protocol that applies to all services. Plans are in place to enhance the framework and extend it to encompass partnership working.

17 An action plan that underpins data quality aspects of the performance management framework has been developed. Progress is being made on the action plan and this is overseen by the Strategic Performance Team who spread good practice and monitor compliance with the framework.

- 18** Whilst this approach has led to improvement in data quality, to raise the profile of good data quality even further, consideration should be given to adopting a formal data policy. This should ensure that staff at all levels who have a responsibility for providing or handling data and/or data information systems where the work they do on a regular basis feeds into the overall performance and policy priorities of their service area.

Recommendation

- R2** Consider adopting a formal data quality policy to ensure that staff at all levels who have a responsibility for data are clear of their responsibilities. The policy should make reference to the six key characteristics of good data quality (as per paragraph 26).

Systems and processes

- 19** Performance information is captured electronically and systems have in-built quality control parameters to ensure good quality data.
- 20** Whilst there is evidence of a validation of Performance Indicators, controls have not been identified in any detail. Although performance information systems are subject to process mapping, these process maps do not identify controls; control mapping would be a useful addition to the process maps.
- 21** Once controls have been mapped they should be subject to review at least annually to ensure that they are working effectively. Reports of annual reviews should be reported to top management and the Audit Committee.
- 22** A data sharing protocol has been drafted and shared with partners, once the protocol has been agreed, systematic arrangements for ensuring that key data supplied by third parties is fit for purpose. For example through data quality assessments carried out by internal audit.

Recommendations

- R3** Performance Information systems should be subject to control mapping and annual testing to prevent manipulation and error.
- R4** Controls should be subject to annual review and reports of reviews reported to top management.
- R5** Systematic arrangements should be put in place for validating information from third parties to ensure data is fit for purpose.
- R6** Review the work of Internal Audit to ensure that they encompass the new partnership agenda into their work.

Detailed findings

People and skills

- 23** Responsibility for data quality is clear at senior level and data owners are clearly identified. Responsibilities for operational staff are less clear, although the council has plans to strengthen this area with the introduction of competencies and further clarity of data quality targets through service planning and in personal target setting.
- 24** Staff have access to guidelines when updating the data via the performance management system.
- 25** There is an effective network of champions and data quality service leads to drive improvement. There are various training programmes in place, although these tend to focus on the performance management system rather than data quality in detail.
- 26** Any future training should encompass the six key characteristics of good data quality as specified in the Audit Commission's paper, *'Improving information to support decision making: standards for better quality data'*. The six key characteristics are as follows.
- Accuracy.
 - Validity.
 - Reliability.
 - Timeliness.
 - Relevance.
 - Completeness.

Recommendations

- R7** As part of spot checking operational staff should be tested on their knowledge of the guidance and data quality objectives as part of the programme of review.
- R8** Once the competency framework is fully in place, data quality targets should be set for all relevant staff and training needs reviewed.
- R9** Carry out specific training on the six dimensions of good data to all relevant staff.

Data use and reporting

- 27** The quarterly performance reporting process clearly links performance information to key service delivery targets and achievements. Actions are identified for poorly performing areas.
- 28** The council has verification and sign off procedures to ensure that information supplied is accurate, relevant, valid and complete. This includes data for external reporting including non BVPIs and government department returns. Our audit of BVPI 165 Pedestrian Crossings with facilities for disabled people identified that the latest definition had not been complied with, indicating that the verification and sign off procedures had not been robustly applied in all cases.

Recommendation

R10 Ensure that data verification and sign off procedures are effective and robustly applied to all PIs.

Analytical review (Stage 2)

29 An analytical review of the following BVPIs and/or non-BVPIs was carried out. The findings, subject to the validation of a sample of PIs in stage 3 spot checks, are shown in Table 2.

Detailed findings

Table 2 Analytical review findings

2007/08 Performance indicator	Assessment	Comment
BVPI 82a Recycling performance.	Variance from 2006/07 attributable to real performance improvement.	n/a
BVPI 82b Composting performance.	Variance from 2006/07 and value within Audit Commission parameters.	n/a
BVPI 165 Pedestrian Crossings with facilities for disabled people.	Variance from 2006/07 and value within Audit Commission parameters.	n/a
BVPI 199a Cleanliness of public spaces and litter and detritus.	Variance from 2006/07 attributable to performance improvement.	Council investing resources.
BVPI 199b Cleanliness of public spaces graffiti.	Variance from 2006/07 attributable to performance improvement.	Council investing resources.
BVPI 199c Cleanliness of public spaces: fly posting.	Variance from 2006/07 attributable to performance improvement.	Council investing resources.
BVPI 78a Average time for processing new claims.	Variance from 2006/07 attributable to performance improvement.	Council investing resources.
BVPI78b Speed of processing: change in circumstances.	Variance from 2006/07 attributable to performance improvement.	Council investing resources.
C13 Cost per library visit.	Variance from 2006/07 and value within Audit Commission parameters.	n/a
Non-BVPI Percentage of total private sector homes vacant for more than six months.	Variance from 2006/07 and value within Audit Commission parameters.	n/a
Non-BVPI Repeat Homelessness.	Variance from 2006/07 attributable to performance improvement.	n/a

- 30 All other PIs reviewed were found to be complete and within plausible and permissible values.

Data quality spot checks (Stage 3)

- 31 A number of PIs were reviewed using a series of detailed spot checks and audit tests. Our findings are shown in Table 3.

Table 3 Spot check findings

Performance indicator	Assessment	Comment
Housing Benefits BVPI 78a Average Time for processing new claims.	Fairly stated	Some minor errors found but insignificant given the size of the population.
Housing Benefits BVPI 78b Speed of processing change of circumstances.	Fairly stated	A number of errors found in testing but most of these had been identified and corrected by the validation arrangements.
Environment BV165 Percentage of Pedestrian Crossings with facilities for disabled people.	Fairly Stated	An amendment (from 100 per cent to 15.6 per cent) was agreed to this PI due to the definition not being correctly applied. Reference has not been made to the latest guidance when compiling the indicator. This meant when the definition changed, the number of compliant crossings had not been reviewed. The issues were resolved and a fairly stated indicator was provided. The indicator had been subject to validation checks which did not identify the issues found during the audit.
BV199 Cleanliness of Public Spaces – Graffiti.	Fairly Stated	No issues arising.

Detailed findings

Performance indicator	Assessment	Comment
Housing H18 Percentage of Private Sector Homes vacant for more than six months.	Fairly Stated	Some minor definition issues but they did not have a material impact on the result, these had not been identified by the council's validation procedure.
H25 Repeat Homelessness.	Fairly Stated	Issues resulting in qualification of this indicator last year have been addressed.

Appendix 1 – Action Plan

Page no.	Recommendation	Priority 1 = Low 2 = Med 3 = High	Responsibility	Agreed	Comments	Date
5	R1 Enhance member involvement by providing regular reports that evaluate the controls in place to give overall assurance for the all aspects of information governance.	3	Nigel Manders	Yes	Via reports to Corporate Quarterly Performance Review.	Q'ly 2009/10
6	R2 Consider adopting a formal data quality policy to ensure that staff at all levels who have a responsibility for data are clear of their responsibilities. The policy should make reference to the six key characteristics of good data quality (as per paragraph 26).	3	Andy Hopkins	Yes	Consider extending DQ Protocol into a Data Quality Policy, that sits under the Performance Management Framework.	March 2009
6	R3 Performance Information systems should be subject to control mapping and annual testing to prevent manipulation and error.	3	Andy Hopkins	Yes	Discuss controls with Internal Audit and speak to services to develop process maps. Further develop PMS controls.	March 2009
6	R4 Controls should be subject to annual review and reports of reviews reported to top management.	3	Nigel Manders	Yes	Review would be part of DQ audits and reported to Corporate Quarterly Performance Review/Audit Committee.	2009/10
6	R5 Systematic arrangements should be put in place for validating information from third parties to ensure data is fit for purpose.	3	Andy Hopkins	Yes	Following training service champions need to agree processes.	2009
6	R6 Review the work of Internal Audit to ensure that they encompass the new partnership agenda into their work.	3	Andy Hopkins	Yes	Work has begun on this and will develop.	Ongoing

Detailed findings

Page no.	Recommendation	Priority 1 = Low 2 = Med 3 = High	Responsibility	Agreed	Comments	Date
7	R7 As part of spot checking operational staff should be tested on their knowledge of the guidance and data quality objectives as part of the programme of review.	3	Andy Hopkins	Yes	As part of data quality audits.	Ongoing
7	R8 Once the competency framework is fully in place, data quality targets should be set for all relevant staff and training needs reviewed.	3	Andy Hopkins	Yes	To be developed.	During 2009/10
7	R9 Carry out specific training on the six dimensions of good data to all relevant staff.	3	Andy Hopkins	Yes	Training with DQ Champions. Audit Commission session at Managers. Briefing.	2009
8	R10 Ensure that data verification and sign off procedures are effective and robustly applied to all PIs.	3	Andy Hopkins	Yes	Review verification process.	March 2009

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Data Quality Action Plan

Action	Who	By When	Actioned Date
Member Training			
Member awareness of Data Quality	Nigel Manders	Mar 2009	
Data Quality Training			
1. Officer training on PMS to be developed to include section on Data Quality	Nigel Manders/ Andy Hopkins	Jan 2009	
2. Session at Managers Breakfast Meeting by Audit Commission on 6 Dimensions (AC Ref. R9)	Andy Hopkins/ Audit Commission	Next Briefing March 09?	
3. Look at incorporating DQ into induction process	Andy Hopkins	2009	
4. See Competencies below			
Auditing/Reporting DQ			
1. Create list of audits for 08/09 – Strategic Performance	Andy Hopkins	July 2008	July 2008
2. Complete audits (AC Ref R7)	Antony Rowland	March 2009 Ad hoc	
3. Reporting on findings to Service Heads	Antony Rowland	Quarterly	
4. Reporting DQ at Corporate QPR (AC Ref R1/R4)	Nigel Manders	Quarterly	
5. Internal Audit Partnership Audits (AC Ref R6)	Internal Audit	Begun Nov 08	
Data Quality and Partners			
1. Draft Shared Data Quality Protocol to next PPWG	Andy Hopkins	May 2008	May 2008
2. Agreed Shared Data Quality Protocol completed	Andy Hopkins	Mar 2009	
Data Quality Policy			
1. Extension of Data Quality Protocol into DQ Policy (AC Ref R2)	Andy Hopkins	Mar 2009	

2. Review verification process (AC Ref R10)	Andy Hopkins	Mar 2009	
Revision of Performing Together			
Review of Performance Framework Document	Andy Hopkins	Mar 2009	
CPWG Terms of Reference			
Agree Terms of Reference for group (to include responsibility for DQ)	Nigel Manders	June 2008	June 2008
PPWG Terms of Reference			
1. Draft Terms of Reference to group (to include responsibility for DQ)	Nigel Manders	Jan 2009	
2. Agree Terms of Reference for group	Nigel Manders	Mar 2009	
Data Quality Competencies			
1. Initial discussions with Learning & Development Steering Group on inclusion of data quality into the general competency requirements of all staff	Nigel Manders	21/4/08	April 2008
2. If agreed, generic competencies will include DQ and will rolled out at the end of year Any training requirement being undertaken in 2009 (AC Ref R8/R9)	Nigel Manders/HR	2009	
3. Review DQ for Management Competencies	Nigel Manders/HR	2009	
Data Quality FAQ's			
Add DQ FAQ's to PMS (AC Ref. R9)	Andy Hopkins	Jan 2009	
Data Quality Newsletter			
1. DQ article in Managers Newsletter "Nuggets" (AC Ref. R9)	Andy Hopkins	Dec 2008	Dec 2008
2. DQ article in staff newsletter "People" (AC Ref. R9)	Andy Hopkins	Mar 2009	
Intranet			
DQ page on Intralinc (AC Ref. R9)	Andy Hopkins	Feb 2009	

PMS Data Quality			
1. Review DQ checklist in PMS (AC Ref R3)	Andy Hopkins	Mar 2009	
2. Set Base Data for all NI's (AC Ref R3)	Andy Hopkins	Mar 2009	
3. Set decimal precision for all NI's (AC Ref R3)	Antony Rowland	Mar 2009	
4. Link all NI's to ESD Toolkit (AC Ref R3)	Andy Hopkins	Mar 2009	
5. Process Maps to include controls (AC Ref R3)	Andy Hopkins	Mar 2009	
PMS Audit			
Internal audit of PMS (AC Ref R3)	Nigel Manders/ Internal Audit	Dec/Jan 09	
Third Party Data			
Develop process with services to validate 3 rd party data (AC Ref R5)	Andy Hopkins	2009	
Audit Committee			
Take recommendations on DQ to Audit Committee	Andy Hopkins	Jan 2009	
Data Quality Monitoring			
Monitor progress of Action Plan	Andy Hopkins	Monthly	

AC Ref – Refers back to the Audit Commissions report December 2008 recommendations