

# ARGYLL & BUTE COUNCIL

## Internal Audit Section

### INTERNAL AUDIT REPORT

CUSTOMER DEPARTMENT	DEVELOPMENT AND INFRASTRUCTURE SERVICES
AUDIT DESCRIPTION	RISK BASED AUDIT
AUDIT TITLE	ROADS MAINTENANCE PRIORITISATION
AUDIT DATE	JUNE 2015

2015/2016



## 1. BACKGROUND

This report has been prepared as a result of the Internal Audit review of Roads Maintenance within Development and Infrastructure Services as part of the 2015/16 Internal Audit programme. The Roads Management and Maintenance Strategy as outlined in the Roads and Amenity Service plan is to “prioritise routes which are likely to contribute to economic growth and improved quality of life and contribute positively to the Council's Economic Development Service Plan”. The road network plays a vital role in supporting the local economy; facilitating the movement of people, goods and services throughout the area and connecting people with economic opportunities. The main legislation is contained in the Roads (Scotland) Act 1984, Section 1, which imposes a duty on local roads authorities, to maintain all public roads, to keep a list of “public roads” and to maintain and manage the list.

The Council's policy and procedures on Roads maintenance is detailed in the Roads Maintenance and Asset Management Plan (RMAMP). The purpose of this plan is to design a sustainable maintenance regime capable of managing the road network asset within the available resources and ensuring that the asset will be available for future generations.

The Society of Chief Officers of Transportation Scotland (SCOTS) has been working with all local authorities and Audit Scotland to develop a nationally consistent framework for the development of Roads Asset Management Plan. The Council's Annual Status and Options Report (ASOR) (2013), provides a baseline from which annual asset management reporting and planning can be developed. Roads maintenance for both reactive and planned maintenance is derived via a number of methods namely:

- Roads Scanning
- SCRIM Survey (measures skid resistance)
- Prioritisation i.e. strategic, main distributor, urban distributor, minor road, minor urban road
- Inspection by roads engineers
- Public complaints via the call centre and web site.

The Roads department uses an Asset and Management system (WDM) which captures and holds the required data in order to carry out both reactive and planned maintenance and to assign the relevant prioritisation.

Roads surfaces are scanned on a periodic basis depending on the category assigned to that road and this information is uploaded into the asset management system. This information is then used to prioritise the planned maintenance for the following year.

Reactive maintenance programs are as a result of road inspections and public complaints via the call centre and web site. The information is captured on the WDM system and on a daily basis the relevant area roads inspector will assess the information and issue an appropriate works instruction. The work will then be carried out in the appropriate timescale depending on the prioritisation assigned.

The overall Roads Maintenance budget for 2015/16 is £3.9m compared to £4.1M in 14/15, excluding winter maintenance and coastal protection activity. The Roads capital budget for 2015/16 is £4.3M as opposed to £6.8M in 2014/15.

## **2. AUDIT SCOPE AND OBJECTIVES**

The main objective and scope of the audit is as follows:

- A review of procedures and policy in relation to prioritisation of maintenance
- The application of policy and procedures
- Monitoring, recording and reporting of performance

## **3. RISKS CONSIDERED**

- ORR- Failure to have robust system in place to prioritise routes
- ORR- Failure to partnership/contractors in place to deliver work schedule
- ORR- Failure to prioritise routes to contribute to economic growth

#### 4. AUDIT OPINION

The level of assurance given for this report is Limited

<b>High</b>	Internal Control, Governance and the Management of Risk are at a high standard with only marginal elements of residual risk, which are either being accepted or dealt with.
<b>Substantial</b>	Internal Control, Governance and the Management of Risk have displayed a mixture of little residual risk, but other elements of residual risk that are slightly above an acceptable level and need to be addressed within a reasonable timescale.
<b>Limited</b>	Internal Control, Governance and the Management of Risk are displaying a general trend of unacceptable residual risk and weaknesses must be addressed within a reasonable timescale, with management allocating appropriate resource to the issues.
<b>Very Limited</b>	Internal Control, Governance and the Management of Risk are displaying key weaknesses and extensive residual risk above an acceptable level which must be addressed urgently, with management allocating appropriate resource to the issues.

This framework for internal audit ratings has been developed and agreed with Council management for prioritising internal audit findings according to their relative significance depending on their impact to the process. The individual internal audit findings contained in this report have been discussed and agreed with management.

A system of grading audit findings, which have resulted in an action, has been adopted in order that the significance of the findings can be ascertained. Each finding is classified as High, Medium or Low. The definitions of each classification are set out below:-

<p><b>High</b> - major observations on high level controls and other important internal controls. Significant matters relating to factors critical to the success of the objectives of the system. The weakness may therefore give rise to loss or error;</p> <p><b>Medium</b> - observations on less important internal controls, improvements to the efficiency and effectiveness of controls which will assist in meeting the objectives of the system and items which could be significant in the future. The weakness is not necessarily great, but the risk of error would be significantly reduced if it were rectified;</p> <p><b>Low</b> - minor recommendations to improve the efficiency and effectiveness of controls, one-off items subsequently corrected. The weakness does not appear to affect the ability of the system to meet its objectives in any significant way.</p>
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## 5. FINDINGS

The following findings were generated by the audit:

### A review of procedures and policy in relation to prioritisation of maintenance

- The Council has a Roads Maintenance and Asset Management Plan (RMAMP) 2004 which is deemed to be the council's policy and procedure. The 2004 RMAMP was accepted by full Council in February 2004.
- The RMAMP sets out the condition standards for the various elements of the road network and optimum timescales for the various activities that are undertaken to maintain the condition of the road network. The main areas contained within the RMAMP are :
  - Collecting inventory
  - Establishing the hierarchy of the Roads
  - Setting standards for condition of the network to be maintained at
  - Inspecting
  - Prioritising repairs
  - Matching workload to available budget
  - Programming work
- A review of the RMAMP showed that there is a procedure for allocating a hierarchy to roads which is used to prioritise planning for planned maintenance detailing the :
  - Hierarchy description
  - Type of Road
  - Detailed description

It was noted that the roads hierarchy is dated 2004 with development underway on an updated RAMP.

- The RMAMP sets out the criteria for handling both reactive and planned maintenance. "For Routine Maintenance, priorities will be defined for all categories of work. Each category may be undertaken separately according to the frequency defined in each case but it will be more efficient to combine a number of operations into a co-ordinated programme. This will particularly apply to remote rural areas where travel plays a significant part in the operation. This may mean a delay in undertaking some works in order to achieve greater efficiency."

- The programme of planned maintenance has been outlined in the roads reconstruction capital programme and has been evidenced as approved by Environment, Development and Infrastructure Committee. It was evidenced that WDM system creates a list of proposed programme maintenance using data populated from the annual road condition survey via road scanning and physical roads inspections. The proposed rankings are then discussed at area level by roads personnel considering traffic flows, recorded collisions, known development (including timber extraction), SCRIM etc. and a capital programme for the following year is then proposed. The 2004 RMAMP states that “the determination of priorities will be objectively based and use accurate condition data”.
- It was noted that a Roads Maintenance Manual is currently being developed.
- The Society of Chief Officers of Transportation Scotland (SCOTS) has been working with all local authorities including Argyll and Bute and Audit Scotland to develop a nationally consistent framework for the development of Road Asset Management Plans (RAMPs) It is noted that Roads Management is currently progressing a revision of the 2004 RMAMP in line with the SCOTS recommendations. Development work is ongoing and a revised RAMP is due to be presented to EDI in winter 2015/16.

#### The application of policy and procedures

- The programme of planned maintenance has been outlined in the Roads Capital reconstruction capital programme and has been evidenced as approved by and Environment, Development and Infrastructure Committee.
- It was evidenced that WDM system creates a list of proposed programme maintenance using data populated from the annual road condition survey via road scanning and physical roads inspections. The proposed rankings are then discussed at area level by roads personnel and a capital programme for the following year is then proposed. It was noted that included in the agreed programme for the following year were schemes which were not included within the list proposed by WDM but were included in the capital programme and vice versa. Explanations offered in respect of these variations were:

Schemes included in capital not in WDM proposed list

- (a) WDM has parameters that exclude scheme lengths of less than 300m with maximum join distance of 50m. If there are a number of schemes within short distances of one another they will be included as it is cost effective to carry them out at the same time.
- (b) Schemes may be added in due to other factors including: engineering judgement and local knowledge of road condition, carrying out works that would help preserve the Revenue Budget (e.g. a section of road that continually has pot holes), a section of road which is a source of significant complaint (from the Public and or Members)
- (c) Schemes may be dropped and put together as one scheme which occurred in Bute in 2014/15 which had 13 proposed small schemes within WDM but these were amalgamated into one large scheme. Also on Tiree during 2014 where the programme was adjusted to maximise benefits of economies of scale.
- (d) Ranking does not reflect any winter damage after the road condition survey is carried out.

Schemes excluded from WDM

- (e) The scheme may score high but is used by only a couple of houses e.g. remote rural access.
- (f) The annual scanner survey collects data for all 32 Scottish local authorities. The national annual survey collects 100% of A class mainland roads in one direction, 50% of B class roads, 25% of C class roads and 10% of Unclassified roads. This can lead to dated scanner information being held in the WDM system which required a greater degree of engineering judgement to be applied. In 2014 Argyll and Bute commissioned additional survey work to enable the full network to be surveyed. This has provided an up to date network condition and will also provide a benchmark to compare future the Road Condition Index.
- (g) There has been a focus over the last 3 years on the larger proportion of the budget is spent on Strategic Roads as a priority. Lower Hierarchy roads can be dropped in favour of the higher ranking roads.

- A summary of the Roads Reconstruction Capital schemes carried out in 2014/15 is as follows: :

<b>Area</b>	<b>Number of schemes</b>	<b>Amount spent</b>	<b>Comments</b>
Mid Argyll	7	£834,000	All schemes delivered on time
Kintyre	10	£610,000	All schemes delivered on time
Islay, Jura and Colonsay	10	£690,000	All schemes delivered on time
Lorn	9	£749,000	All schemes delivered on time
Mull	6	£1,540,000	All schemes delivered on time
Cowal	4	£1,665,000	All schemes delivered on time
Bute	3	£371,000	All schemes delivered on time
Helensburgh and Lomond	14	£893,000	2 schemes delayed due to utility issues
<b>Total</b>	<b>63</b>	<b>£7.352,000</b>	

- A review of the schemes carried out during 2014/15 showed that there were schemes included that were not proposed via WDM and also schemes proposed by WDM that were not carried out. However in terms of the documentation provided there was no audit trail to confirm the rationale behind why schemes were included or excluded in terms of the various reasons outlined above.
- There is no reference in the RMAMP (2004) or any procedural document that details the various reasons as to why schemes may be included or excluded from the proposed capital works.
- A hierarchy is assigned to each road within Argyll and Bute which is reflective of the needs, priorities and actual use. The hierarchies also take account of local circumstances such as schools and hospitals. A weightings process is also in place to differentiate between strategic, main distributor, minor road, etc. It was noted that the Development and Infrastructure paper agreed by full Council in October 2014 outlines a revised proposed hierarchy which has yet to be agreed.
- It was evidenced from the WDM system that reactive maintenance works orders are captured within the system and allocated a priority category based on the nature of the defect and the road priority.



### Monitoring, recording and reporting of performance

- Section 8.1 of the 2004 RMAMP states that “In order to demonstrate continuous improvement, performance has to be continually measured and this is undertaken through performance indicators, standards and targets”
- It was evidenced that included within the Pyramid Performance Management system a range of performance measures are monitored. Although not an exhaustive list these include :
  - % of CAT 1 roads defects by area being completed on time
  - % of roads instructions being completed on time
  - % of roads reconstruction capital projects being completed on time and on budget
  - Planned road repairs as a % of revenue budget

It was noted that included within the RMAMP (2004) are examples of three performance indicators namely:

- No. of public liability claims per 100km of road network
- No. of defects reported during safety inspections
- Reactive repairs as a % of revenue budget

A review of performance indicators within Pyramid showed that these particular performance indicators in the RMAMP are not included and consequently this highlights that there are potential gaps in information being reported in relation to the condition of the road. However the Annual Status and Options Report provide an annual analysis of road condition which supersedes the PIs detailed in the 2004 RAMP. It was also noted that there are a range of new performance indicators currently under development and subject to approval.

The RMAMP (2004) section 8.4 states that benchmarking will be used to provide a means of comparing our performance with that of others. It was noted that there are no current KPI's included within Pyramid that benchmark the Council against other local authorities. It was noted, however, that recording of benchmarking information does take place within the Association for Public Service Excellence (APSE) reporting which includes a wide range of performance measures and that section 3.13 of the Annual status and options report (2014) presented to the Environment, Development and Infrastructure committee in November 2014 includes benchmark comparisons to both Highlands and Islands Council and Devon Council. Benchmarking data is also included in reports to committee on Local Government Benchmarking (Improvement Service).

- It was evidenced that a Quarterly Revenue performance report (Finance) is prepared and presented to each area committee from information obtained from the Roads costing system (TOTAL). The report details:
  - Actual spend to date against budget
  - Overall budget
  - Percentage spend
  - Estimated quantity of works carried out

It was noted that there was limited management information provided within this report.

- It was noted that performance scorecard information is reported to the Environment, Development and Infrastructure Committee on a quarterly basis however this does not make explicit reference to Roads Maintenance data.
- It was noted that each area Committee is presented on a quarterly basis with score card information which includes Roads Maintenance performance information. A review of the score card information showed that for each area three KPI's are reported namely :
  - % Road area resurfaced against target
  - % Road area surface treated against target
  - % Cat 1 road defects repaired timeously against target

Financial information is also reported, namely % of planned repairs against budget.

- The WDM system is one of the main systems for Roads Maintenance data. It was noted during the audit that management is not comfortable with access and reporting from the system.
- It was noted that there are approximately 5000 works instruction recorded in the WDM system since initial implementation in 2007 under the heading "no further action". These relate to calls received by the call centre which have already been reported or are not part of roads remit.
- It was noted that the controls within WDM system require review i.e. the system can accept a works order completion date which is earlier than the instruction date.

## **6. CONCLUSION**

This audit has provided a Limited level of assurance. There were a number of recommendations for improvement identified as part of the audit and these are set out in Appendix 1 and 2. There are two high and three medium recommendations set out in Appendix 1 which will be reported to the Audit Committee. There are three low recommendations which are not reported to the Audit Committee. Appendices 1 and 2 set out the action management have agreed to take as a result of the recommendations, the persons responsible for the action and the target date for completion of the action. Progress with implementation of actions will be monitored by Internal Audit and reported to management and the Audit Committee.

Thanks are due to the staff and management of Roads and Amenity Services for their co-operation and assistance during the Audit and the preparation of the report and action plan.

**APPENDIX 1 ACTION PLAN**

<b>Findings</b>	<b>Risk Impact</b>	<b>Rating</b>	<b>Agreed Action</b>	<b>Responsible person agreed implementation date</b>
<b>1. Roads Maintenance and Asset Management Plan</b>		<b>High/ Medium or Low</b>		
The 2004 RMAMP has not been updated since acceptance by full Council in February 2004.	Service/policy is not reflective of current practice/guidance.	High	Revised RAMP is due to be reported on late 2015 – early 2016. The Roads Management and Maintenance Strategy & the Annual Status and Options Report have been developed and reported to Council. These documents, in part, replace the 2004 RMAMP.	31 January 2016  Roads Performance Manager Network
<b>2. Roads Maintenance Manual</b>				
It was noted that the Roads Maintenance Manual is currently under development and subject to approval.	Inconsistencies in practice leading to ineffective use of resources and ineffective decision making.	High	Roads maintenance manual is currently being prepared and will be forwarded to all relevant roads personnel.	31 January 2016  Roads Performance Manager
<b>3. Roads Hierarchy</b>				
It was noted that the roads hierarchy is dated 2004 and a revision is currently under development and subject to approval.	Non-current information may lead to ineffective decision making	Medium	Revised hierarchy is due to be reported Summer 2016.	30 November 2015  Roads Performance Manager Network

<b>4 Prioritisation of capital Schemes</b>				
<p>The 2004 RMAMP states that “the determination of priorities will be objectively based and use accurate condition data”- however, current practice includes an element of engineering judgement.</p> <p>There was also lack of documentary evidence to confirm the rationale behind why schemes were included or excluded in the 2014/15 capital reconstruction plan.</p>	<p>Failure to adhere to agreed policy leading to inconsistent decision making.</p>	<p>Medium</p>	<p>RMAMP to be updated to reflect selection basis i.e. engineering judgement.</p> <p>Audit trail to be provided in the form a scheme decision sheet detailing reasons for any departure from automated ranking</p>	<p>31 January 2016</p> <p>Roads Performance Manager Network</p>
<b>5. Performance</b>				
<ul style="list-style-type: none"> <li>• It was noted that two performance indicators specifically mentioned in the RMAMP (2004) are not reflected in the current Pyramid performance data.</li> <li>• It was noted that there is limited performance data included in the quarterly Revenue performance report.</li> <li>• It was noted that Scorecard data reported to EDI Committee does not included specific reference to Road Maintenance indicators.</li> </ul>	<p>Failure to provide key performance information may lead to ineffective/inconsistent decision making</p>	<p>Medium</p>	<p>Performance data including KPI's to be included in Pyramid are currently being reviewed and agreed. Policy documents will be updated accordingly.</p>	<p>30 September 2015</p> <p>Head of Roads and Amenity Services</p>

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