

Report 15 of 2020

Examination of the management of
road asset maintenance:
City of Salisbury



Report of the Auditor-General

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of road asset maintenance:
City of Salisbury

Tabled in the House of Assembly and ordered to be published, 17 November 2020

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By authority: S. Smith, Government Printer, South Australia

*The Auditor-General's Department acknowledges and respects
Aboriginal people as the State's first people and nations, and
recognises Aboriginal people as traditional owners and occupants of
South Australian land and waters.*



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16 November 2020

President
Legislative Council
Parliament House
ADELAIDE SA 5000

Speaker
House of Assembly
Parliament House
ADELAIDE SA 5000

Dear President and Speaker

**Report of the Auditor-General:
Report 15 of 2020 Examination of the management of road asset maintenance:
City of Salisbury**

Under section 32(1) of the *Public Finance and Audit Act 1987* (PFAA), I have conducted an examination of the way road asset maintenance is managed by the City of Salisbury.

The objective of the examination was to assess the effectiveness of the management of road asset maintenance for the period 1 July 2016 to 30 June 2019.

I present to each of you my independent assurance report on the findings of the examination.

A copy of this report has also been provided to the City of Salisbury.

Content of the report

We examined the arrangements established by the City of Salisbury to manage the maintenance of its road assets.

We concluded that overall the Council effectively managed the maintenance of its road assets to enable it to meet the service delivery requirements of its community.

We also concluded that there are important improvements needed to ensure information is included in key documents to help make asset management decisions and keep the community better informed.

My responsibilities

Examinations conducted under section 32(1)(a) of the PFAA are assurance engagements that assess whether a publicly funded body is achieving economy, efficiency and effectiveness in its activities. These engagements conclude on the performance of the activities evaluated against identified criteria.

The Auditor-General's roles and responsibilities in undertaking examinations are set out in the PFAA. Section 32(1)(a) of the PFAA empowers me to conduct this examination while section 32(3) deals with the reporting arrangements.

The examination was conducted in line with the Standard on Assurance Engagements ASAE 3500 *Performance Engagements*. We complied with the independence and other relevant ethical requirements for assurance engagements.

Acknowledgements

The audit team for this report was Andrew Corrigan and the Local Government Team.

We appreciate the cooperation and assistance given by the staff of the City of Salisbury.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Richardson', with a long horizontal flourish extending to the right.

Andrew Richardson
Auditor-General

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1 Executive summary

1.1 Introduction

The City of Salisbury (the Council) is located on the northern fringes of Adelaide. It has an estimated population of 143 560. The Council's local road network is 806 km, spanning across the total council area of 158 km², and it was valued at \$460 million as at 30 June 2019. 99.9% of the Council's roads are sealed.

Our examination objective was to determine whether the Council effectively managed the maintenance of its road assets¹ to enable it to meet the service delivery requirements of its community. The examination covered the period 1 July 2016 to 30 June 2019.

We determined whether the Council had:

- implemented an adequate strategic asset management framework and practices for maintaining its road assets
- adequate asset information systems in place to monitor and report on the maintenance and performance outcomes of its road assets
- prepared accurate and timely reports on the progress of its maintenance and the performance outcomes of its road assets.

A core service that a local council provides to its community is a safe and reliable network of public roads. The South Australian local government sector is responsible for approximately 75% of the State's road network with a total value of \$12 billion. Councils make important decisions in allocating funds to balance the need to:

- maintain and renew existing road assets and provide a level of service, over the asset life, that is financially sustainable
- maintain their existing road assets and invest in other infrastructure and community assets
- extend the sealed road network and maintain and renew the existing one.

Consequently, councils invest significant funds to maintain their roads. It is important that they manage their roads (and all other physical assets) effectively and efficiently to deliver the required levels of service to meet present and future community needs in a financially sustainable way over the assets' lives. The risks of not effectively managing road assets are:

- an increase in the deterioration of roads if appropriate and timely maintenance and renewal is not performed
- reduced levels of service, which may lead to community dissatisfaction and a council subject to public criticism and mistrust
- an increase in future costs, which may lead to financial burden on the future generation of ratepayers and impact a council's long-term financial sustainability
- a negative impact on the quality of community life and economic activity within the council area

¹ We examined the road surface for sealed road assets as illustrated in figure 2.2.

- ramifications for public safety.

1.2 Conclusion

For the three-year period we examined, we concluded that overall the Council effectively managed the maintenance of its road assets to enable it to meet the service delivery requirements of its community.

The Council had a good strategic asset management framework in place and adequate asset management practices and information systems to support the maintenance of its road assets, because it had:

- applied industry guidance on infrastructure asset management in preparing its infrastructure asset management plans
- consulted with its community on its organisational objectives
- assessed the condition of its road assets regularly
- established systems to understand and manage its road asset information
- developed and implemented its road asset maintenance program
- prepared accurate and timely reports to monitor the performance of its road asset maintenance activities.

The Council continues to improve its framework and practices to achieve a higher level of asset management maturity, as determined by the Council.

We also concluded that there are important improvements needed to ensure information is included in key documents to help make asset management decisions and keep the Council's community better informed. These include the Council:

- ensuring its asset management objectives (AM objectives) and associated performance measures are clearly linked to its organisational objectives
- ensuring performance measures are clearly defined and documented in its strategic management plans (SMPs)
- formalising its required levels of service and performance measures by including them in the strategic management plans adopted by the Council and communicated to its community
- ensuring its transport asset management plan (TAMP) is complete and that it is reviewed and updated in line with the Council's requirements
- adequately documenting the review of its transport risk management plan.

1.3 What we found and recommended

Our key findings and recommendations are summarised in figure 1.1 and more details are included in sections 4 to 6.

Figure 1.1: Key findings and recommendations

Key findings	Key recommendations
Strategic asset management	
Organisational and asset management objectives not clearly linked, and performance measures not defined (section 4.4.1)	<p>The Council should ensure its AM objectives and associated performance measures are clearly linked to its organisational objectives.</p> <p>The Council should also ensure performance measures are defined and documented to enable it to clearly demonstrate how effective it is at achieving its AM and organisational objectives.</p>
The SMPs did not include required levels of service for road assets (section 4.4.2)	The Council's SMPs should clearly set out the required customer and technical levels of service for road assets, which supports its asset planning and decision-making process. It is important the levels of service statements are written in terms the community can understand and relate to.
The TAMP was incomplete and not updated annually (section 4.4.3)	The Council should make sure the information in its TAMP is complete and that it is reviewed and updated in line with its own requirements.
There was a lack of reporting on the outcome of management's review of the transport risk management plan (section 4.4.4)	<p>The Council should update its TAMP for its risk management process for transport asset management.</p> <p>The Council should review its risk management reporting process to ensure the relevant governing committees are informed of the outcome of the risk assessment process and risk treatment plans.</p>
Monitoring and reporting	
The Council had not established performance measures and targets for road assets that linked to its required levels of service (section 6.3.1)	<p>The Council's SMPs should clearly set out performance measures and targets to help it assess the effectiveness of its road asset maintenance activities.</p> <p>The performance measures should be relevant to the Council's AM objectives and the required levels of service and allow them to be measured and achieved within the time frame determined by Council.</p>

1.4 Response to our recommendations

The Council responded to our detailed findings and advised us the actions being taken to respond to our recommendations, which were accepted as positive improvements. The Council's response is included in each section of this Report.

The Council also provided the following feedback on the examination:

The City of Salisbury appreciates the methodology used by your officers in conducting examination and my Council view the findings as an opportunity to further improve our processes for delivering services and infrastructure to the community.

2 Background

2.1 Introduction

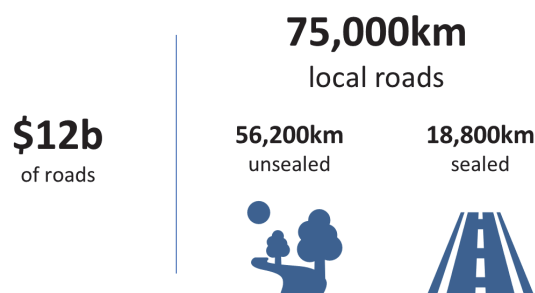
2.1.1 Road assets

South Australian councils are established and governed by the *Local Government Act 1999* (the LG Act). Section 7 of the LG Act provides a council's functions, which include providing infrastructure for its community and for development within its area, and managing, improving and developing available resources. Further information about the LG Act is provided in Appendix 2.

A council's infrastructure assets enable it to deliver core services to its community, and support improvements in economic activity and community members' health and wellbeing. This Report considers road infrastructure assets, which include roads, bridges, footpaths, kerbing and stormwater drainage systems. Councils also manage infrastructure that supports social community activities such as libraries, community centres and recreational hubs.

A core service that a council provides to its community is a safe and reliable network of public roads (local roads). Local roads amount to about 50% of the depreciated replacement cost of total council infrastructure assets and other physical assets in South Australia.² The local government sector is responsible for a majority of the State's road network (75%, 75 000 km) and the SA Government is responsible for the rest (25%, 23 000 km). Figure 2.1 provides a high-level profile of local roads and shows that 75% of the local road network is unsealed and 25% is sealed.

Figure 2.1: Local government sector profile – road assets



Source: Developed from information published in the South Australian Local Government Grants Commission's 2018-19 annual report and obtained from the Office of Local Government² (unaudited).

2.1.2 Why road asset management is important

It is important for councils to manage their road assets effectively and efficiently to deliver

² Office of Local Government, *Local government finances: Financial Performance and Position 2017-18*, viewed 11 June 2020, <https://www.dpti.sa.gov.au/__data/assets/pdf_file/0004/574483/Local_Government_Finances_-_Financial_Performance_and_Position_2017-18.pdf>.

the required levels of service to meet current and future community needs. Councils make important decisions in allocating funds to balance the need to:

- maintain and renew existing road assets and provide a level of service, over the asset life, that is financially sustainable
- maintain their existing road assets and invest in other infrastructure and community assets
- extend the sealed road network and maintain and renew the existing one.

Consequently, councils invest significant funds to maintain and develop road assets to continue delivering the same level of service and maintain an acceptable asset renewal gap.³ This helps to reduce backlogs of maintenance and renewal works, and supports long-term financial sustainability.

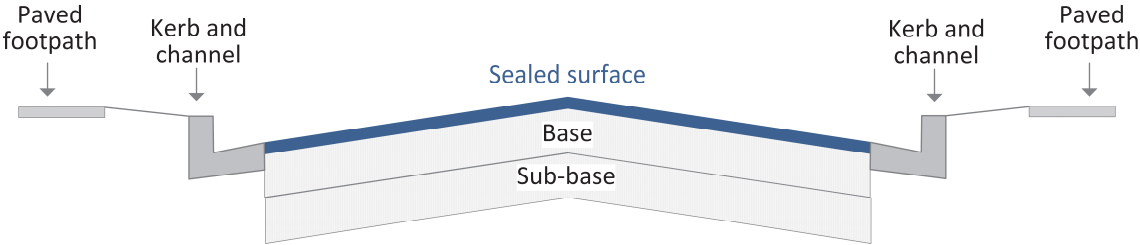
The risks of not effectively managing road assets and the asset renewal gap are:

- an increase in the deterioration of roads if appropriate and timely maintenance and renewal is not performed
- reduced levels of service, which may lead to community dissatisfaction and a council subject to public criticism and mistrust
- an increase in future costs, which may lead to financial burden on the future generation of ratepayers and impact a council’s long-term financial sustainability
- a negative impact on the quality of community life and economic activity within the council area
- ramifications for public safety.

2.1.3 The components of a road asset

A road asset is made up of a few components that have different useful lives. Figure 2.2 shows the key components of a sealed road asset.

Figure 2.2: Diagram of a sealed road



Sealed roads have an underlying base and sub-base with a service life of 50 to 150 years and 150 to 300 years, respectively. The sealed surface has a shorter life and is typically renewed

³ The asset renewal gap refers to the difference between the money that councils need to renew their existing assets and the money that is actually allocated.

on a 20 to 40-year cycle.⁴ We examined the road component shown in blue in figure 2.2.

2.1.4 Asset renewal gap

Each council determines an asset renewal funding ratio target, which is included in its long-term financial plan, and reports on the actual ratio achieved in its annual audited financial statements. The Local Government Association of South Australia (LGA) suggests a ratio of between 90% and 110%.⁵ The ratio is for all infrastructure and physical assets and therefore sector statistics on renewal gaps for road assets are not available.

The LGA's *SA Local Government Sector Financial Indicators Report 2019*⁶ states that in 2017-18:

- of the 50 councils for which data on an asset renewal funding ratio was available, 86% of councils had a ratio higher than 60%
- while most councils were renewing and replacing their assets in either a satisfactory or optimal way, some councils could improve on the capital spending needed to cost-effectively maintain desired and affordable service levels from their assets
- there are operational and other reasons why the asset renewal funding ratio result may vary between years. This may not necessarily detract from asset management performance if a council's target is achieved over the medium term (for example over a rolling three or five-year average)
- in the absence of reliable data covering asset management performance in some, mainly rural, councils, it is not possible for those councils to quantify the extent of any annual shortfalls against the optimal level of capital expenditure on renewal and replacement of existing assets to provide desired and affordable service levels.

2.2 Overview of the City of Salisbury

2.2.1 Council profile

The Council is located on the northern fringes of Adelaide. It has an estimated population of 143 560. The Council is the State's fourth largest economy where manufacturing is the largest industry.⁷ The map in appendix 4 to this report shows the Council area that consists of 32 suburbs.

The Council's local road network is 806 km, spanning across the total council area of 158 km.² Figure 2.3 provides further details of the Council's profile.

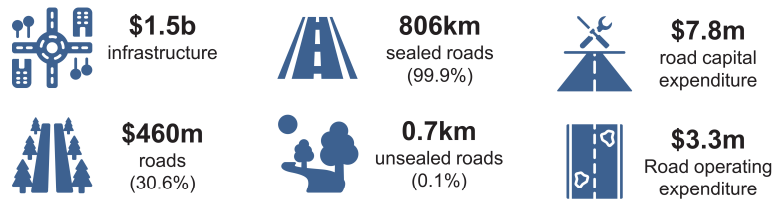
⁴ City of Salisbury annual report for 2018-19.

⁵ Local Government Association of South Australia, *Financial Sustainability Information Paper 9: Financial Indicators* (revised May 2015).

⁶ At the time of this Report the LGA was finalising its *SA Local Government Sector Financial Indicators Report 2020*.

⁷ City of Salisbury community profile, viewed on 26 August 2020, <<https://profile.id.com.au/salisbury/home>>.

Figure 2.3: Council profile 2018-19



Source: Information provided by the Council (unaudited).

2.2.2 Challenges in managing road assets

The Council faces many challenges in managing its road assets, including:

- the impact of major SA Government infrastructure projects such as the northern connector. This can result in increased traffic and shorter than anticipated life cycles for the Council’s road network. The Council needs to continually monitor traffic data and reappraise asset condition and life cycle
- the increased use of heavy vehicles, which increases the rate of road damage
- the reactive soil in the Council’s eastern areas that can result in premature failure of road pavement. This is managed by reducing the life cycle of these road assets
- instances where utility providers will carry out work on their assets that are located under roads or footpaths. The roads/footpaths are not always reinstated to a design standard and the Council incurs the cost of repairing them to the required standard
- an increase in high-density housing leading to increased traffic and the need to upgrade intersections and deliver traffic calming devices (such as speed humps) more often.

2.2.3 Asset management roles and responsibilities

Figures 2.4 and 2.5 show the Council’s governance structure for asset management and roles and responsibilities.

Figure 2.4: Governance over asset management

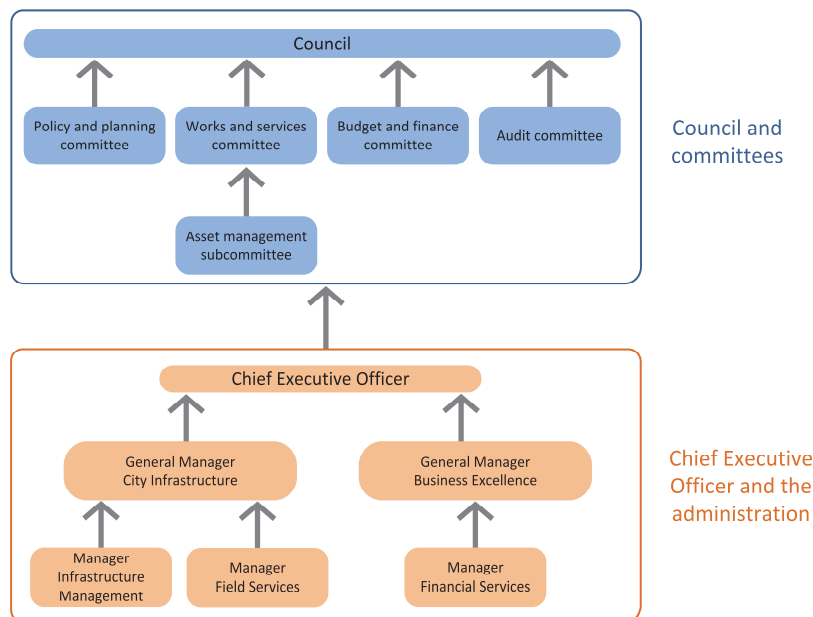


Figure 2.5: Roles and responsibilities

Council and committees	
Elected body	Makes informed decisions on providing infrastructure for its community and ensuring that resources are used effectively and efficiently in providing services.
Audit committee	Oversees and provides independent advice to the Council on financial accountability and internal control matters, including asset management.
Budget and finance committee	Provides advice to the Council on areas of financial sustainability, long-term financial planning, annual business plan and budget reviews, including asset management.
Policy and planning committee	Provides advice to the Council on strategic asset management and corporate plans.
Works and services committee	Provides advice to the Council on public works and property matters and reports monthly on the status of the road renewal and reconstruction program.
Asset management subcommittee	Provides advice to the works and services committee on asset management policies, plans and priority of work programs.
Chief Executive Officer (CEO) and the administration	
CEO	<p>Properly manages and maintains the Council’s assets and resources.</p> <p>Provides information to the elected body and committees to help assess the Council’s performance against its SMPs.</p> <p>Provides relevant advice and reports to help the Council make informed decisions.</p>
General Manager City Infrastructure	Manages the Council’s infrastructure division to deliver the organisational objectives for the management of city-wide infrastructure.
General Manager Business Excellence	Manages the Council’s financial and administration services division. This division prepares the Council’s financial plans (long-term financial plan, annual business plan and budget).
Manager Infrastructure Management	<p>Develops and implements the road renewal and reconstruction (capital) program, maintenance programs.</p> <p>Develops the asset management plans, procedures and systems for all of the Council’s infrastructure assets.</p> <p>Provides technical advice to ensure the capital works program can be delivered.</p> <p>Prepares and manages the annual budgets for the capital and maintenance programs and provides monthly reports on financial and non-financial performance.</p> <p>Determines and implements key performance measures to inform the Council’s long-term financial strategy.</p>

Manager Field Services	<p>Manages the operational road maintenance program.</p> <p>Helps to develop the asset management plans, procedures and systems for all of the Council's infrastructure assets.</p> <p>Develops and manages the long-term work schedules and programs.</p> <p>Prepares annual budgets and monthly reports on financial and non-financial performance.</p> <p>Determines and implements key performance measures.</p>
Manager Financial Services	<p>Prepares the budget, quarterly budget review reports, the long-term financial plan and the annual business plan.</p>

2.2.4 Funding of road assets

Councils fund road assets mainly from their rate revenue and grants from the Commonwealth Government. Grants distributed to the local government sector by the South Australian Local Government Grants Commission (SA LGGC) fall under the Local Government Financial Assistance Grant program established under the *Local Government (Financial Assistance) Act 1995* (Cth). \$160 million was provided to the South Australian local government sector in 2018-19.⁸ The funding is untied and consists of a general-purpose component and an identified local road component. Since 2016-17 the Council has received the first two quarters of funding in June for the following financial year. The Council's share of the funding for 2018-19 was \$8.6 million, including \$1.6 million identified for local roads.⁹

The Commonwealth Government's decision to freeze indexation on financial assistance grants in its 2014-15 budget had a significant impact on South Australian councils. The reintroduction of this indexation in 2017-18 meant an extra \$4 million for South Australian councils.¹⁰

Other federal assistance that is not distributed by the SA LGGC includes:

- the Roads to Recovery program to help councils repair local roads nearing the end of their economic life. In the five-year program 2014 to 2019, over \$221 million went directly to South Australian councils¹¹ with around 37 % of program funds provided to metropolitan councils. The Council received \$2.1 million in 2018-19. A new Roads to Recovery program commenced on 1 July 2019. The Council is expected to receive \$8 million over five years¹²

⁸ South Australian Local Government Grants Commission December 2019, *South Australian Local Government Grants Commission 2018-19 Annual Report*.

⁹ *ibid.*

¹⁰ Local Government Association of South Australia 2016-17 annual report.

¹¹ Information provided by the South Australian Local Government Grants Commission on 27 May 2020.

¹² Australian Government, Department of Infrastructure, Transport, Regional Development and Communications, viewed 31 August 2020, <https://investment.infrastructure.gov.au/files/roads_to_recovery_program/r2r-allocations-20200316.pdf>

- supplementary road funding of \$20 million⁸ paid in 2018-19 to South Australian councils to maintain and upgrade their local road networks. This funding is to address the inequity of the allocation to South Australia as compared to other jurisdictions due to the funding formula. The Council received supplementary road funding totalling \$1.6 million on 27 June 2019 for the 2019-20 and 2020-21 financial years.¹³

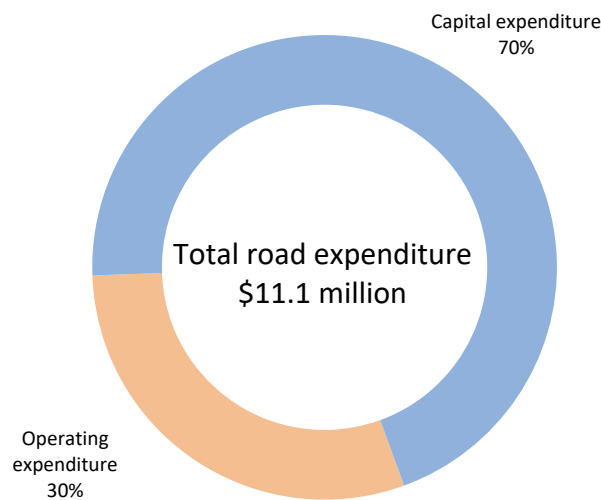
By agreement with Local, State and Federal Governments, the SA LGGC receives a portion (15%) of some roads grants for strategic local road projects recommended by the regional Local Government Associations, known as the Special Local Roads Program. The Council received \$302 000 in 2018-19.¹⁴

2.2.5 Road expenditure

In 2018-19, the Council’s capital budget for the road renewal and reconstruction program was \$7.9 million. Its actual expenditure was \$7.8 million, with over 98% of the program completed.

Operating expenditure for 2018-19 was \$3.3 million. This includes street sweeping, line marking, and potholing. It can also be reactive maintenance required to address isolated surface defects including potholes, seal cracking, ruts and deformation that can be in response to customer requests resulting from storms and flooding. The total expenditure on road assets for 2018-19 is shown in figure 2.6.

Figure 2.6: 2018-19 capital and operating expenditure – road assets



Source: Prepared from data supplied by the Council (unaudited).

¹³ City of Salisbury 2018-19 annual report.

¹⁴ South Australian Local Government Grants Commission 2020, *Special Local Roads Program 2018-19*, 13 August.

2.3 Asset management and maintenance principles

2.3.1 Asset management defined

Asset management is a systematic, structured process covering the whole life of an asset by which councils manage infrastructure assets to meet current and future levels of service.

Some of the terms used in this Report are explained in Appendix 1.

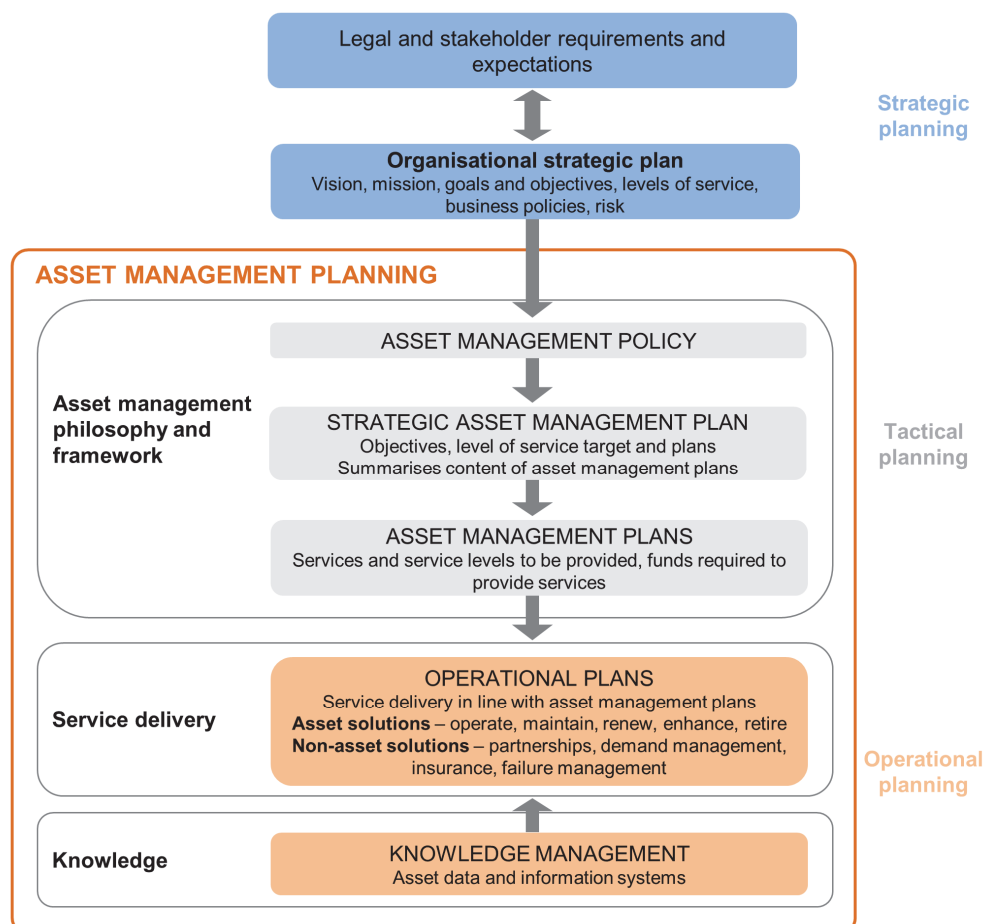
2.3.2 The Council's strategic asset management framework

The aim of asset management is to meet a required level of service, in the most cost-effective way, by managing infrastructure assets over their expected useful lives for current and future community members, while managing risks and achieving long-term financial sustainability.

The Council's asset management practices are guided by the Institute of Public Works Engineering Australasia's (IPWEA) *International Infrastructure Management Manual*, International Edition 2015 (IIMM). Appendix 2 provides more details on asset management guidance and support for councils.

Section 4.1 provides the key elements of a good strategic asset management framework. The Council's framework, shown in figure 2.7, includes these key elements.

Figure 2.7: The Council's strategic asset management framework



In 2016, the Council engaged a consultant to assess its asset management maturity against the International Standard on asset management (ISO 55001). The Consultant found that the Council had mature asset management practices and staff were well briefed on their roles and responsibilities for asset management. It also found that the overall asset management system could be improved by committing to following the International Standard. Section 4.2.1 provides more information on this assessment.

2.3.3 Maintenance defined

Maintenance is defined as all actions necessary for retaining an asset as near as practicable to an appropriate condition to deliver the required levels of service and ensure that the asset reaches its expected useful life. For this examination, this includes the regular, ongoing, day-to-day work needed to keep assets operating and asset renewal activities. Renewal activities for road assets include work to replace the sealed surface.

Maintenance is important to reduce the risks identified in section 2.1.2. Appendix 3 provides further details on the Council's asset management and types of maintenance.

3 Audit mandate, objective and scope

3.1 Our mandate

The Auditor-General conducted this examination under section 32(1)(a) of the *Public Finance and Audit Act 1987*. This section allows the Auditor-General to examine the accounts of a publicly funded body and the efficiency, economy and effectiveness of its activities.

3.2 Our objective

We assessed whether the Council effectively managed the maintenance of its road assets to enable it to meet the service delivery requirements of its community.

The examination covered the period from 1 July 2016 to 30 June 2019 and considered whether the Council had:

- implemented an adequate strategic asset management framework and practices for maintaining its road assets to enable optimal use and capability of those assets for the duration of their expected useful lives
- adequate asset information systems in place to monitor and report on the maintenance and performance outcomes of its road assets
- prepared accurate and timely reports on the progress of its maintenance and the performance outcomes of its road assets.

3.3 What we reviewed and how

We considered the LG Act and guidance provided in the IIMM to assess whether the Council had:

- established and documented required levels of service and performance measures for roads assets
- consulted with its community in establishing the required levels of service for road assets
- adopted objectives, strategies, policies and strategic management plans for maintaining its road assets to enable it to achieve its service delivery requirements. This included whether the financial resources needed to maintain road assets to the required levels of services were identified
- clearly defined the roles and responsibilities of management and relevant governance groups for maintaining its road assets
- established processes to identify, assess and monitor risks in maintaining road assets
- established systems and processes to support correct and adequate road asset records
- established systems and process to identify and manage the road asset maintenance work and monitor and report on its outcomes.

Consistent with procedural fairness principles, on 7 July 2020 we provided the Council with a confidential copy of our examination findings and recommendations and requested a written response. This followed discussions with the Council's CEO on 1 July 2020. The Council formally responded to the examination results on 28 August 2020.

We carefully considered all comments provided during the procedural fairness process and, where necessary, we have addressed them in preparing this Report.

On 12 October 2020 the Council was provided with a confidential draft copy of this Report, which included the Council's formal responses and our conclusion in section 1.2.

3.4 What we did not review

We did not assess whether the Council's road assets were fit for purpose and met its community's service delivery requirements.

Road upgrades by nature are not included in the definition of maintenance and were therefore excluded from our examination.

Our examination was limited to the road surface for sealed roads as illustrated in figure 2.2. We did not examine maintenance activities for other road infrastructure assets (such as footpaths, kerbs and stormwater drainage).

We did not assess the relationship between the State and Local Government sectors in managing the State's road asset network.

We did not assess the Council's risk management practices across all its functions. We focused on the monitoring and reporting of the road asset risks.

4 Council's strategic asset management framework and practices

4.1 Introduction

The key elements of a good strategic asset management framework include:

- ***governance arrangements*** which provide an accountability structure with clearly defined roles, responsibilities and reporting requirements
- ***community consultation*** before setting the required levels of services and adopting asset management plans
- well defined ***levels of service*** which are needed to develop asset management strategies
- well defined and relevant ***performance measures***
- an agreed ***asset management policy*** which provides the principles and requirements for asset management
- an asset management ***strategy and objectives*** which outline the actions to take to implement the policy, achieve the levels of service and manage the impact of changes in demand
- an ***infrastructure and asset management plan*** (IAMP) that is in line with the policy, strategy and objectives. The IAMP provides a clear and accurate understanding of the assets owned and managed by the Council and their condition
- a ***long-term financial plan*** which identifies the expenditure needed and source of funds to support the IAMP
- sound ***risk management*** practices to identify, assess and manage risks
- ***monitor, evaluate and report*** on road asset maintenance activities and performance to senior management, the elected body and the community (more information on this element is in section 6).

Levels of service are the fundamental building blocks of asset management and it is important a council understands what levels of service its community requires and its willingness to pay. Councils also need to clearly understand the capability of the asset to deliver those requirements. This knowledge informs asset management planning and decision making.

Levels of service identify the quality and cost-effectiveness of the service that an asset delivers. This will differ according to the choices that a council makes, including when and how an asset is maintained.

4.2 Independent reviews – asset management

We considered the reports from the following independent reviews of the Council's asset management framework and practices.

4.2.1 External consultant

In 2015 the Council engaged an external engineering consultant to review its asset management practices to:

- determine a best practice framework to support its strategic asset management life cycle
- assess how well the Council's practices aligned with the identified best practice framework and identify areas of improvement.

The consultant's report was presented to the Council's audit committee in April 2016 and concluded:

- the Council had a mature asset management practice and staff were well briefed on their roles and responsibilities for asset management
- there were no apparent major deficiencies in the Council's asset management system and practices, and the approach to managing roles and responsibilities. A few opportunities for improvement were identified, such as improved documentation of the alignment between organisational objectives, level of services and key performance indicators
- asset management plans were well developed using the IPWEA's tools and templates
- the Council's approach generally reflected the requirements of the International Standard on asset management (ISO 55001).

The external consultant recommended the Council:

- consider whether it would adopt ISO 55001 as the best practice framework
- carry out specific project work to better align its practices with ISO 55001. The 10 projects recommended included: an asset management policy and asset strategy review with specific focus on risk management, performance monitoring and reporting, refining the asset levels of service, and reviewing the asset management plan to better link it to the City Plan and asset strategy
- establish a project control group to review these projects and develop a prioritised work program
- initiate the approved work program for the revised prioritised projects. Each project should be clearly defined with a scope and form part of an asset management improvement plan
- as part of the project control group, monitor project progress and implement ISO 55001 maturity assessments audits.

At the time, Council management advised its audit committee that key actions arising from the external consultant's review would be incorporated in the next revision of the asset management plans, the asset policy and strategy would be aligned with IPWEA requirements and it would consider more alignment to ISO 55001.

4.2.2 Internal audit

The Council's internal audit commenced a review of its asset management practices in late 2019, after we started our examination, and presented a report to the audit committee in March 2020. The aim of the internal audit was to review the Council's governance and risk management frameworks for creating, managing, monitoring and reviewing asset management matters, and ensuring that robust processes and controls were in place and in line with better asset management practices.

Internal audit found that the Council needed to:

- focus on customer levels of service and enhance processes for monitoring and reporting on levels of service
- ensure asset management plans are 'living documents' fully integrated with the long-term financial plan
- review the content of its asset management plans against IPWEA standards and ISO 55000.

Council management's response to the findings were that:

- the Council's asset management subcommittee would work through levels of service progressively, with a need to change to a more community centred focus
- asset management plans are living documents and updated regularly, however the frequency of their review would be improved
- reviewing alignment with IPWEA, International Standards and levels of service occurred in 2017 and close alignment was identified.

Council management also indicated that all outstanding agreed actions from the internal audit would be tracked and reported to the audit committee.

4.3 Positive Council asset management practices

We found that the Council had:

- adopted an asset management policy and strategy, and a TAMP for maintaining its road assets to enable it to achieve its service delivery requirements. This included identifying the financial resources needed to maintain road assets to the technical levels of service identified in the Council's annual business plan and budget
- as part of its annual budget process, reviewed budget bids and the summary of renewal expenditure for road assets. The renewal expenditure is endorsed by Council as a four-year program and is broadly in line with the TAMP. This expenditure is reflected in the Council's long-term financial plan.
- defined the roles and responsibilities of management and relevant governance groups for maintaining its road assets

- engaged an expert consultant to perform a road condition assessment in November 2016 that produced the Council’s capital and operating works program for a five-year period. The assessment showed the Pavement Condition Index (PCI) at 8.5¹⁵ which was above the Council’s technical level of service of 8.2. This allowed for a reduction of \$500 000 in the capital budget for 2018-19. Each year this data is updated to reflect the changes in condition because of major renewal and upgrades performed by Council
- conducted a community satisfaction survey in November 2018, which occurs every two years. The survey looked at satisfaction in areas such as traffic flow, general cleanliness of streets, verges and footpaths and access to streets and walkways.

4.4 Findings

4.4.1 Corporate and asset management objectives not clearly linked, and performance measures not defined

Recommendation

The Council should ensure its AM objectives and associated performance measures are clearly linked to its organisational objectives.

The Council should also ensure performance measures are defined and documented to enable it to clearly demonstrate how effective it is at achieving its asset management and organisational objectives.

Finding

The IIMM states that:

The AM [asset management] objectives must be consistent with organisational objectives and the AM Policy and be regularly monitored and reviewed.

AM Plans should be based on the achievement of asset specific objectives (level of service) that reflect the high-level objectives in the AM Strategy.

We reviewed the City Plan, TAMP, asset management policy and asset management strategy to determine whether there was a clear linkage between:

- the Council’s organisational and asset management objectives
- the actions and the associated asset management objectives
- the performance targets to demonstrate the effectiveness of achieving the asset management objectives.

¹⁵ A PCI range of 7-8.5 means a very good road condition and above 8.5 is excellent. The PCI range was produced by an external engineering consultant and is a generally accepted industry standard. Figure A3.2 of Appendix 3 provides a description of the PCI range.

We found that:

- the documents we reviewed did not provide a clear and consistent linkage between the asset management and organisational objectives
- the TAMP showed the actions to achieve the organisational objectives but not linked back to the AM objectives
- the TAMP did not document the performance measures or time frames indicating how the asset management strategies are to be measured and which organisational objective they relate to. Further details on performance measures is provided in section 6.3.1.

The IIMM provides a suggested format that shows a clear link between the AM objectives, actions associated with the objectives, performance targets, who is responsible for each objective and the organisational objectives that relate to that AM objectives.

Developing and documenting AM objectives is an important part of asset management planning that drives the development of the asset management plan. AM objectives capture the outcome or performance required from assets to deliver organisational objectives. AM objectives also integrate and align different parts of the organisation and allow the organisation to assess the effectiveness of its asset management activities.

This finding is consistent with that of the external consultant.

Council response

The Council agreed with the finding and recommendation and indicated that:

- in the past its asset management plans were written based on a three to five-year cycle and set the level of services and renewal programs for up to 10 years. The 2015 plans were not specifically linked to the City Plan
- it has now moved to a strategic asset management plan (SAMP) process, as presented to Council in early 2020. The SAMP covers a summary of all asset categories and has clear links to the City Plan. The SAMP and the long-term financial plan, based on a 10-year renewal and capital forecast, were presented for Council's approval. The SAMP will be presented to Council again in the second half of 2020 due to recent changes in the budget and will address our findings
- it has also established the asset management subcommittee which helps the Council to determine the appropriate levels of service for different asset classes.

4.4.2 The Council's strategic management plans did not include required levels of service for road assets

Recommendation

The Council's SMPs should clearly set out the required customer and technical levels of service for road assets, which support its asset planning and decision-making process. It is important the levels of service statements are written in terms the community can understand and relate to.

Finding

Section 122(1)(ab)(ii) of the LG Act requires a council to provide the extent or levels of service that will be required to be provided by the council to achieve its objectives.

The IIMM states that:

Levels of service are key business drivers and influence all AM decisions. Level of service statements describe the outputs the organisation intends to deliver to customers and other stakeholders and therefore must be written in terms the end user can understand and relate to.

Levels of service provide the link between higher level corporate and AM objectives and more detailed technical and operational objectives.

We reviewed the Council's SMPs to determine whether they provided the required levels of service for road assets.

The TAMP provided a section on customer and technical levels of service for road assets but it did not actually document the required levels of service for road assets as determined by the Council. For example, it did not describe the service level from the customer's perspective, such as the road quality based on its appearance (eg extent of potholes and cracks within the road surface), road widths (eg maximise its width where required) and responsiveness to inspect failures and address complaints and its function (where the road network meets the need for all types of road users/vehicles).

While we found the Council's 2018-19 annual business plan provided the technical levels of service for roads, these along with the customer levels of service should be provided in the TAMP, which focuses on the medium to long-term.

A key element of effective asset management is establishing levels of service at the time of developing the SMPs. The levels of service influence all asset management decisions to ensure they are maintained in a financially sustainable manner over the useful life of a road asset, which ranges from five to 300 years depending on the road asset component.

Without documenting the levels of service required in its SMPs, the Council may not be able to clearly demonstrate to its community and other stakeholders the agreed levels of service required for road assets and the levels they need to be maintained at.

This finding is consistent with that of the external consultant and internal audit.

Council response

The Council agreed with the finding and recommendation and indicated that the PCI is developed based on criteria that includes technical and customer related service levels. In 2016-17 the Council agreed to a PCI of 8.2 after completing the third condition assessment of its roads and based on a review of:

- what a road looked like at different PCI levels
- the expected customer experience (such as roughness, number of potholes, ride-ability).

This means that the PCI has become the subsequent default customer service level for the Council, without being explicitly expressed to the community in the SAMP.

The Council advised that it measures the community's satisfaction of road quality through a review of enquiries and a customer satisfaction survey. This survey includes satisfaction ratings on:

- access to streets and walkways
- streets, verges, footpaths and general cleanliness of streets
- traffic flow.

While this is not explicit in the PCI criteria, the Council has concluded that it gives an excellent guide on customer satisfaction with roads. The Council indicated that the results have not deviated in five years.

Figure A3.2 of Appendix 3 provides further details of PCI levels.

4.4.3 The transport asset management plan was incomplete and not updated annually

Recommendation

The Council should make sure the information in the TAMP is complete and that it is reviewed and updated in line with its own requirements.

Finding

Section 122(1a)(b) of the LG Act requires a council to adopt an IAMP for its infrastructure and major assets, which covers a period of at least 10 years and forms part of the Council's SMPs.

Section 122(4)(b) of the LG Act states a council may review its SMPs at any time but must review them comprehensively within two years of each general election of the council.

Consistent with the intent of section 122 of the LG Act, the IIMM states that:

A key purpose of AM plans is to drive longer term thinking and planning and ensure the organisation is operating in a financially sustainable manner.

The AM plan is a dynamic live document that drives the business. Update it when key assumptions, strategies or budget decisions change.

The Council approved its TAMP in November 2015. The TAMP states:

- *the AM plan will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the organisation's LTFP [long-term financial plan]*

- *the AM plan is due for complete revision and updating on an annual basis to align with the budget process and review of the LTFP.*

While meeting the legislative requirements, the Council had not met its own policy requirement.

We found that the TAMP had not been updated since it was approved in November 2015 and was incomplete in some areas where, for example:

- the improvement plan did not allocate responsibility or the resources required to perform the task and it was unclear how improvements were monitored and reported
- critical assets would be developed in future revisions
- the renewal and replacement priority ranking criteria was still to be determined.

The TAMP has a long-term focus giving a high-level indication of funding requirements to enable the achievement of asset management and organisational objectives. It needs to be reviewed and updated regularly to ensure the Council can meet the required service levels in a financially sustainable manner.

This finding is consistent with that of the external consultant and internal audit.

Council response

The Council agreed with the finding and recommendation.

The Council indicated that its TAMP, while not updated, is reviewed each year and the renewal program is presented to Council as part of the capital works program. The Council also advised that the SAMP gives a summary overview of the status of the road asset and will continue to be developed as the Council's asset planning process matures.

4.4.4 Lack of documented review of the transport risk management plan

Recommendation

The Council should update the TAMP for its risk management process for road asset management.

The Council should review its risk management reporting process to ensure the relevant governing committees are informed of the outcome of the risk assessment process and risk treatment plans.

Finding

The Council's asset management policy states:

The key elements of achieving successful asset management are: identifying, assessing and appropriately incorporating risk management principles into asset management processes.

The Council's TAMP provides information on risk management and includes the transport risk management plan. The TAMP requires critical risks (very high and high risks) and the residual risks after treatment to be reported to management and Council. It identifies two critical risks and the associated treatment plans. It also requires an infrastructure risk register to be kept for operations and maintenance, and renewal and replacement activities.

The TAMP's improvement plan requires the transport risk management plan be reviewed on an ongoing basis, but information on the responsibility for this and the resources required to do it was not completed.

We reviewed the meeting minutes of Council and the various committees that govern asset management for meetings held between June 2018 and July 2019. We found that there was a lack of reporting on the outcome of management's risk assessment process for transport asset management.

The Manager, Infrastructure Management advised us of the process for responding to the risks provided in the transport risk management plan, which is based on individual projects and budget bid reporting to Council. However, the risk management process is not outlined in the TAMP.

Risks for road assets include structural failures, substandard condition, storm damage, contractor underperformance, non-compliance and operator error. There are potential consequences to public safety, cost efficiency, effectiveness of service delivery and the resilience of the road network if risks are not managed effectively. Risks need to be identified, analysed, mitigated, monitored and reported.

The failure to identify and manage risks affecting road maintenance increases the risk that road assets are not maintained properly. This may lead to ineffective maintenance activities and increase future costs.

This finding is consistent with that of the external consultant.

Council response

The Council agreed with the finding and recommendation.

The Council indicated that many risks identified in the original TAMP have been closed, however these risks are not identified as closed in the SAMP. It advised that this will be addressed in the future as part of the standard procedure. This was identified in the audit committee's asset management planning review which the Council is implementing.

5 Asset management information systems

5.1 Introduction

Good asset management is enabled by effective asset management information systems (AMIS) that provide current and accurate asset information to make informed and strategic decisions. This information should provide an understanding of the road assets (such as useful life, condition, costs) to enable decisions to be made that optimise their performance and costs in delivering the required level of service over their expected useful lives. These decisions include deciding whether to maintain or renew/upgrade individual road assets and how and when to manage backlogs of road works.

Collecting, processing, managing and maintaining asset information can be costly. In determining what should be collected councils need to consider the value of the information for decision-making and operational processes relative to the costs. The IIMM provides further guidance on analysing the benefits and costs of an AMIS and determining the level of functionality needed. It also provides the core functionality that an AMIS should provide, which includes:

- an asset register to store primary asset attributes (road type, materials, dimensions, construction date)
- information to support accounting requirements (financial reporting disclosures and valuations)
- the ability to report on key measures of road asset condition and performance
- the ability to manage customer service/complaint request management
- the ability to manage road maintenance.

5.2 Positive Council asset management practices

We found that the Council:

- had an adequate AMIS to understand its road assets and provide information to plan, manage, monitor and report on maintenance outcomes
- had an asset register that records road asset attributes and valuations
- had an adequate AMIS with information to support financial reporting
- had a customer service/complaint system that interfaces with the AMIS and enables management of road maintenance requests (eg potholes).

5.3 Findings

5.3.1 The Council's public roads register does not include all the required information

Recommendation

The Council should ensure that its public roads register contains the information required by the LG Act.

The Council should update its website for the current version of its public roads register.

Finding

Section 231 of the LG Act requires a council to keep a register of public roads in its area that is available for public inspection. The public roads register is to contain the following information required by the Local Government (General) Regulations 2013:

- the name of the public road
- the situation of the public road
- the approximate extent of the public road
- the approximate width of the public road
- within the public road – the approximate width of the carriageway, including any associated kerbing, verges or footpaths (where formed).

We found the public roads register on the Salisbury Council website at the time of our examination was dated March 2011.¹⁶ The Council provided us with a current copy of the public roads register dated July 2019. These registers did not include the approximate width of the carriageway, including any associated kerbing, verges or footpaths.

Council response

The Council agreed with the finding and recommendation.

The Council advised that its asset register is used as the de-facto public register and includes all the required information. However, the current public roads register will be updated to its website after the Council has received road transfers associated with the northern connector in late 2020.

¹⁶ http://www.salisbury.sa.gov.au/Build/Vehicles_Parking_Transport_and_Roads/Public_Road_Register, accessed on 10 June 2020.

6 Monitoring and reporting on asset maintenance and performance

6.1 Introduction

A key element of good asset management is to monitor, evaluate and report on road asset maintenance activities and performance to enable senior management and the elected body to make informed decisions and a council to discharge its accountability to the community.

A council discharges its public accountability by reporting on its performance in its annual report.

6.2 Positive Council asset management practices

We found that:

- the Council reported the required indicators in its annual report to assess financial sustainability, including the asset renewal funding ratio of 82.2% (110.6%) for 2018-19 (2017-18). The Council's target is between 90% and 110% for this ratio
- the Council's works and services committee received monthly reports on the performance of the road renewal and reconstruction program
- the Council's budget and finance committee received quarterly reports for the road reseal program as part of the budget review.

6.3 Findings

6.3.1 The Council had not established performance measures and targets for road assets and linked them to its required levels of service

Recommendation

The Council's SMPs should clearly set out performance measures and targets to help it assess the effectiveness of its road asset maintenance activities.

The performance measures should be relevant to the Council's AM objectives and the required levels of service and allow them to be measured and achieved within the time frame determined by Council.

Finding

Section 122(1)(d) of the LG Act requires a council's SMPs to provide the financial and non-financial measures used to monitor and assess a council's performance against its objectives.

The IIMM provides:

Performance measures are specific indicators ... used to demonstrate how the organisation is doing in relation to delivering levels of service, sometimes differentiated between ... a 'customer performance measure'; which measures the service the customer receives ... and a 'technical performance measure'; which measures how effectively the organisation provides the service.

Determining performance measures is dependent on first establishing the required levels of service. As discussed in section 4.4.2, the Council's SMPs did not set out the levels of service for road assets. Consequently, we also found the SMPs did not provide performance measures and targets to enable the Council to objectively assess and report on its performance in delivering its required levels of service and the effectiveness of its road asset maintenance activities.

We found that the City Plan showed four key directions, each with four associated objectives, how they will be achieved and how the progress will be measured at an organisational level.

The City Plan did not provide performance measures for road asset maintenance activities or measures used to demonstrate how the Council went in delivering levels of service. The IIMM outlines the benefits of measuring asset management performance against levels of service, which include:

- evidence of actual versus the desired level of service
- accountability to members of the public
- identification of areas for improvement in asset management
- a means of monitoring performance of service delivery providers.

Without establishing measures and targets to make an objective assessment of the Council's performance, there may be uncertainty over the effectiveness of road asset maintenance activities and whether the Council has delivered the required levels of service. This also reduces the Council's ability to monitor, report and be held accountable by the community for its asset maintenance and performance.

This finding is consistent with that of the external consultant and internal audit.

Council response

The Council agreed with the finding and recommendation. It indicated that:

- the SAMP will be updated to include the level of service targets and associated key performance indicators for road asset maintenance activities
- the updated SAMP will be submitted to Council in the second half of 2020
- this was previously identified in the customer service framework, which requires Council to respond to road requests within one business day, however it is not clearly defined at the maintenance standard. For example, standard level operating practice is that maintenance service levels for emergency work are to make the road safe the same day. However this is not clearly outlined in the SAMP for roads.

Appendix 1 – Glossary of abbreviations and terms

The terms and abbreviations used in this Report were sourced from legislation, the Council and the IIMM.

Term	Description
AMIS	asset management information system
Asset management	a systematic, structured process covering the whole life of an asset by which councils manage infrastructure assets to meet current and future levels of service
Asset renewal/Renewal of assets	planned maintenance to restore existing assets to original service capability. This excludes improvements to the asset through upgrades to extend the life or improve functionality, such as adding a sealed surface to an unsealed road
Asset renewal funding ratio	quantifies the extent of any annual shortfalls against the optimal level of capital expenditure on renewal and replacement of all existing assets specified in asset management plans to provide desired and affordable service levels
CEO	Chief Executive Officer
IAMP	infrastructure and asset management plan
IIMM	<i>International Infrastructure Management Manual</i> , International Edition 2015 issued by the Institute of Public Works Engineering Australasia
Infrastructure	a council's physical assets that enable it to deliver core services to its community, support improvements in economic activity and community members' health and wellbeing. This includes parks, community hubs, road infrastructure and community wastewater management systems
IPWEA	Institute of Public Works Engineering Australasia
Levels of service	the defined service quality for a particular service/activity against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental impact, acceptability and cost. This will differ according to the choices that a council makes including when and how an asset is maintained
LG Act	<i>Local Government Act 1999</i>
Life cycle asset management	how existing and future assets will be managed to provide defined levels of service
Maintenance	maintaining assets including all actions necessary for retaining an asset as near as practicable to an appropriate condition to deliver the required levels of service and ensure that the assets reaches its expected useful life. For this examination, this includes the regular, ongoing, day-to-day work necessary to keep assets operating and asset renewal activities

Term	Description
Performance measures	specific indicators used to demonstrate how the council is delivering levels of service. Customer performance measures assess the service the customer receives. Technical performance measures show how effectively the council provides the service
Planned maintenance	repair work that is identified and managed through a maintenance management system. Activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance
Public road	a road vested in a council under the LG Act
Reactive maintenance	unplanned repair work that is carried out in response to service requests and management/supervisory directions
Renewal gap	a shortfall in required annual funding to renew assets. If this is not carried forward and funded, there is a backlog which risks deterioration of the assets and service levels
Resealing	planned, periodic replacement of the top layer of a sealed road with spray seal and selected small stone
Road assets	sealed and unsealed roads
Road infrastructure	council assets including roads, bridges, footpaths, kerbing and stormwater drainage systems
Road pavement	the hard-layered structure that forms a road carriageway, generally compacted gravel (base and sub-base)
SAMP	strategic asset management plan
Sealed roads	roads surfaced with bitumen impregnated with small stone or some other hard material
Suite of strategic management plans (SMPs)	the Council's suite of SMPs includes its City Plan, long-term financial plan and asset management plans
TAMP	transport asset management plan
Unplanned maintenance	corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required service or maintain its level of security and integrity. This will address isolated surface defects in Council's roads including potholes, seal cracking, ruts and deformation, often required in response to customer reports or weather conditions (eg storms and flooding)
Unsealed roads	do not have a bituminous waterproof seal, usually found in low traffic and rural areas

Appendix 2 – Relevant law and guidance

A2.1 *Local Government Act 1999*

The LG Act provides for the care, control and management of local roads by a council. A council's local roads are recorded in a public register. The CEO is required to ensure the council's assets and resources are properly managed and maintained.

A council is required to develop and adopt plans for the management of its area, to be called collectively the strategic management plans (suite of SMPs). In developing them, a council is required to set its long-term strategic objectives, assess its capacity to deliver the extent or levels of service to its community and determine performance measures and targets. Councils may review their suite of SMPs at any time but are required to undertake a comprehensive review within two years of each council general election.

A council's capacity to meet its long-term strategic objectives is demonstrated through its long-term financial plan and infrastructure and asset management plans (IAMPs). These plans identify the financial and infrastructure resources required to meet a council's strategic objectives and protect its long-term financial sustainability.

Short-term plans (annual business plan and budget) are developed each year in consultation with the community and adopted by a council to identify the principal activities to meet objectives and state the measures (financial and non-financial) that will be used to monitor and assess the performance of the council.

A council discharges its operational and financial accountability by reporting on its performance through its annual report, which includes its audited annual financial statements. A council's audit committee has a role in ensuring integrity of financial records and regularly reviews the adequacy of internal controls.

The LG Act provides an integrated process of consulting, planning, monitoring, reviewing and reporting where each stage depends on the other.

A2.2 Industry guidance – Institute of Public Works Engineering Australasia

The LG Act requires councils to develop IAMPs that cover a period of at least 10 years. The form and content of an IAMP is not prescribed. The LGA recommends¹⁷ that councils follow the guidance provided in the Institute of Public Works Engineering Australasia's *International Infrastructure Management Manual*, International Edition 2015 (IIMM) and templates when preparing their IAMPs.

¹⁷ Local Government Association of South Australia, *Financial sustainability information paper 6: infrastructure and asset management*, revised December 2019.

The IIMM outlines how infrastructure assets should be managed across their life cycles to support service delivery objectives and is in line with the asset management best practices issued by the International Organization for Standardization.

A2.3 Local Government Association support

The LGA provides support and guidance to councils by publishing various information papers and model templates on asset management and financial sustainability. At the time of this Report, the LGA had commenced a project¹⁸ to produce:

- a sector-wide asset management and financial planning maturity assessment report
- a model IAMP with model templates. The recommendations of the South Australian Productivity Commission report into local government costs and efficiency are being considered in the form and structure of these documents.

¹⁸ Local Government Association of South Australia, *Asset Management Program*, viewed 1 May 2020, <<https://www.lga.sa.gov.au/member-services/infrastructure-and-assets/asset-management-program>>.

Appendix 3 – Asset management and maintenance principles

A3.1 Asset management defined

Asset management is a systematic, structured process covering the whole life of an asset by which councils manage infrastructure assets to meet current and future levels of service.

Some terms used in this Report are explained in Appendix 1.

A3.2 The Council's strategic asset management framework

The aim of asset management is to meet a required level of service, in the most cost-effective way, by managing infrastructure assets over their expected useful lives for current and future community members, while managing risks and achieving long-term financial sustainability. In summary, the IIMM provides:

As highlighted by ISO 55000 [the International Standard], good AM [asset management] is about achieving best value through the right balance between cost, risk and performance.

In addition to its aim, another important concept the IIMM highlights is life cycle asset management. This is where management strategies and decisions are considered as part of the asset life cycle. Road assets have a long-term life cycle to deliver the required level of service. So it is important that road asset management strategies and decisions are focused its long-term service delivery.

Section 4.1 provides the key elements of a good strategic asset management framework. The Council's framework includes these key elements, as shown in figure 2.8.

For each asset management component, the IIMM provides a range of levels of asset management being aware, basic, core, intermediate and advanced. The LGA reports that typically councils will start at a core level and develop to a more advanced level by identifying strategies to reduce life cycle costs through improved practices and new technology.

Deciding on the level of asset management is a key strategic decision made by individual councils depending on the value that will be gained against the cost of applying it. This will differ between councils and should be considered in the context of their resource capacity, risks and other funding priorities.

We reviewed the asset management maturity levels in the IIMM, and it is our view that councils should be operating at the core level for many of the asset management components to meet LG Act requirements. For example, setting the strategic direction at a core level of maturity requires that the organisation's asset management policy and asset management objectives be aligned to its goals and strategic context.

In 2016, the Council engaged a consultant to assess its asset management maturity against the International Standard on asset management (ISO 55001). The Consultant found that the Council had mature asset management practices and staff were well briefed on their

roles and responsibilities for asset management. The Consultant also found that the overall asset management system could be improved by committing to following the International Standard. Section 4.2.1 provides more information on this assessment.

A3.3 Maintenance defined

Maintenance is defined as all actions necessary for retaining an asset as near as practicable to an appropriate condition to deliver the required levels of service and ensure that the asset reaches its expected useful life. For this examination, this includes the regular, ongoing, day-to-day work necessary to keep assets operating and asset renewal activities. Renewal activities for road assets include work to replace the sealed surface (see figure 2.2).

Maintenance is important to reduce the risks discussed in section 2.1.2.

A3.4 Types of maintenance

Activities to maintain road assets are driven by their condition and the required levels of service. Maintenance can be planned or unplanned. Renewal of road assets is a major activity of councils and is planned maintenance to restore existing assets to original service capability.

Figure A3.1 outlines the different road maintenance activities carried out by the Council.

Figure A3.1: Types of road maintenance activities

Maintenance type	Sub-category	Activity description	Nature of expenditure
Planned – renewal of assets	Resealing	Periodic replacement of the top layer of a sealed road with spray seal and asphalt.	Capital
Planned maintenance	Sealed roads	Street sweeping.	Operational
Unplanned maintenance	Sealed roads	Line marking and potholing.	Operational
	Reactive	Required to address isolated surface defects including potholes, seal cracking, ruts and deformation often through customer requests reporting, such as after storms and flooding.	Operational

Figure A3.2: The pavement condition index (PCI) ranges applied by the Council

PCI	Road condition
10 to 8.5	Excellent
7 to 8.5	Very good
5.5 to 7	Good
4 to 5.5	Fair
2.5 to 4	Poor
1 to 2.5	Very poor
< 1	Failed

Appendix 4 – Map of the Council area

