ASSET MANAGEMENT STRATEGY and ASSET MANAGEMENT PLAN SUMMARY

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Executive Summary

The Armidale Dumaresq Council (ADC) is the Local Government Authority for a major service centre which provides a range of community infrastructure assets to support the local and broader regional population needs. Key community assets/infrastructure includes health, aged care, education, retail



centre, sporting stadiums and fields and museums and galleries. ADC's resident population of 26,700 puts it on par with other medium sized regional urban councils such as Goulburn-Mulwaree, Griffith and Kempsey.

A key issue facing Council is the management of ageing assets in need of renewal and replacement. Council infrastructure, particularly council roads present particular challenges and present the major financial risk facing Council and the community. This asset management strategy reflects Council's

determination to live within its means whilst engaging the community on affordable levels of service. To meet the needs of our communities, now and into the future, Council has engaged with the community on an agreed way forward which a range of options to balance revenues and expenditures in the long term by rebalancing service levels to affordable levels. This community engagement commenced in 2012 and there has been extensive community engagement since that time. The decision to increase revenue as part of the overall strategy to balance revenues and cost is supported by most of the community. 56% of people sampled in a random telephone survey conducted in November 2013 by Jetty Research indicated their support and preference for a rate increase as opposed to a reduction in the level of services or community assets. At the same time, Council has received strong opposition and submissions from a proportion of the community that

has expressed concern about their financial capacity to pay more, particularly the rural sector in the light of drought conditions.¹

Council has decided to apply to IPART for a 10% special rate variation above the rate peg. This followed consultation of a range of options over the past 2 years including increases of up to 20%. This 10% increase



alone is likely to result in reduction in service levels in some areas over the next 10 years, particularly for roads. Ongoing engagement with the community will be needed on a range of options to balance long term revenues and service levels. This is likely to involve some combination of service reduction, increased revenues and improved efficiency. This asset management strategy sets out the range of measures that can achieve financial sustainability over the next 10 years.

¹ Armidale has recently been included in a \$14.6 million expansion of temporary emergency assistance for the drought announced by NSW Minister for Primary Industries Katrina Hodgkinson on 12th February 2014. The assistance will include 20 local government areas, also including Uralla, Walcha, Guyra, Glen Innes, Inverell, Gunnedah, Tamworth and Tenterfield.

Risk Management Plan

Armidale Dumaresq now has a risk management framework in place and risk registers are in the formative stage. The critical task for the implementation of the asset management strategy is to identify and fund the most effective risk management options by linking the asset management plans with the budget process. Risk management plans accompany each asset management plan to guide the effective allocation of resources.

Strategic Risks for Armidale Dumaresq Council

- Age and condition of infrastructure. Over \$54 Million of Armidale Dumaresq Council's assets are in poor / very poor condition. This represents 13% of asset value and this is estimated to be over 22% over the next 10 years if current funding levels and mix of services are not changed. This risk can be managed by implementing this asset management strategy. It requires a three phase plan;
 - a. Plan, Consult, Inform and Engage.
 - i. Plan scenarios for asset renewal guided by the long term financial plan integrated with the asset management and risk management plan.
 - ii. Continue to develop and communicate affordable service level targets during 2014 to provide an input to Councils determination on the service levels and level of rates that will allow Council to move to a financially sustainable position over a 10 year period.
 - iii. Communicate risks and risk management strategies to the community. This is supported by the communication and engagement strategy that shows what Armidale Dumaresq Council can and can't afford to deliver with current levels of funding and scenarios for rates increases.
 - iv. Improve asset and risk management to very high levels very quickly.
 - b. Implement
 - Decide on the best balance of services that will move Council to a sustainable position within the current long term financial plan (with 10% special rate variation), update the resourcing strategy as needed and implement.
 - ii. Implement the program of works in the asset management plans to manage risk, ensure value management on expenditure and manage scenarios for rebalancing service levels.
 - c. Review and Report
 - i. Establish clear governance and reporting processes to internal and external stakeholders.
 - ii. Implement ongoing communication and engagement on affordable service levels.
 - iii. Annual reviews and reporting in the annual reports as per the IPR processes.

2. Organisational Capacity and Loss of skilled people. Despite the age and condition of Armidale Dumaresq Council infrastructure, Armidale Dumaresq Council performs at a very high level because of the skills and experience of Armidale Dumaresq Council's people. These people are very effective at managing increasing risks as assets reach end of useful operating life. The demographic profile of Armidale Dumaresq Council corresponds to the national workforce and many skilled and experienced people could leave Armidale Dumaresq Council over the next 10 years. When combined with the rapidly ageing infrastructure, this represents a critical risk. This risk can be managed by effective governance and communication. The current asset management project has established a risk register that has enabled Armidale Dumaresq Council to tap into the experience and knowledge of Armidale Dumaresq Council staff so that this knowledge can inform the budget process.

Asset management strategies

- 1. Ongoing consultation with the community on affordable service levels and risks balanced to the revenues set in the long term financial plan to move to a financially sustainable position over a 10 year period.
- 2. Implement a risk management plan to ensure residual risks are managed
- 3. The delivery program and annual budgets will align with Councils asset management plans and be guided by the following principles:
 - a. Resource allocation (capital or maintenance/operating) will consider existing highest residual risk in the risk register
 - b. Resource allocation will consider assessed need determined by a gap between the actual service level and set affordable targets in the service plan / asset management plan.
 - c. Resource allocation will consider alternative options to minimize life cycle costs and propose the best option.
 - d. Resource allocation align with the resourcing strategy for long term financial sustainability
- 4. Develop and implement an advocacy campaign with other Councils to other levels of Government with the following messages:
 - a. Council is a responsible and competent asset manager and provides value for money services within available revenues.
 - b. The service levels that are affordable by the community are likely to have adverse long term infrastructure impacts and risks as defined by asset management plans and resourcing strategy.

c. State and federal government objectives can be enhanced by assisting Council in funding key infrastructure projects identified in the asset management plans.

1. Introduction

Armidale Dumaresq Council assets represent community investment in infrastructure over a long period. A key issue facing Armidale Dumaresq Council is the management of aging assets in need of renewal and replacement.

Infrastructure assets such as roads, facilities, drains and utilities present particular challenges. Their condition and longevity can be difficult to determine. Financing needs are large, requiring planning for the expenditure for renewing and replacing such assets. The demand for new and improved services adds to the planning and financing complexity.

The creation of new assets also presents challenges in funding the ongoing operating and replacement costs necessary to provide the needed service over the assets' full life cycle.

Armidale Dumaresq Council is adopting a longer-term approach to service delivery and funding comprising:

- A strategic longer-term plan covering, as a minimum, the next 20 years and:
 - \circ $\;$ bringing together asset management and long term financial plans,
 - o demonstrating how the organisation intends to resource the plan, and
 - consulting with stakeholders on the plan
- Annual budget showing the connection to the strategic objectives, and
- Annual report with:
 - explanation on the impact of the asset management strategy on staff and customers,
 - report of operations with review on the performance of the organisation against strategic objectives.

Armidale Dumaresq Council Asset Planning and Management has seven elements to assist in highlighting key management issues, promote prudent, transparent and accountable management of Armidale Dumaresq Council assets and introduce a strategic approach to meet current and emerging challenges.

- 1. Asset management policy,
- 2. Strategy and planning,
 - a. asset management strategy,
 - b. asset management plan,
- 3. Governance and management arrangements,
- 4. Defining levels of service,
- 5. Data and systems,
- 6. Skills and processes, and
- 7. Evaluation and reporting on value for money.

The asset management strategy is to enable the organisation to show:

- how its asset portfolio will meet the service delivery needs of Armidale Dumaresq Council customers and the community into the future,
- to enable asset management policies to be achieved, and
- to ensure the integration of asset management with its long term strategic plan.

The goal of asset management is to ensure that services are provided:

- in the most cost effective manner,
- through the creation, acquisition, maintenance, operation, rehabilitation and disposal of assets,
- for present and future consumers.

The objective of the Asset Management Strategy is to establish a framework to guide the planning, construction, maintenance and operation of the infrastructure essential to provide services to the community.

1.1 Legislative Requirements

The table below shows the NSW legislative requirements and their connection a national asset management framework.

<u>Elements of a National</u> <u>Approach ²</u>	<u>Core Level</u> <u>Assessment In</u> <u>Appendix A and Key</u> <u>Improvement Tasks in</u> <u>Appendix B</u>	<u>Core Level Content and Documentation as per IPR and</u> <u>Agreed Nationally Consistent Frameworks</u>
Strategic longer term plan (Strategic Plan) – Framework 3 - Element 4.2	Practice Area = Strategic Plan	 The plan should include: where the council is at that point in time – current position; where it wants to get to – vision and strategic objectives of the council; how it is going to get there – strategies for achieving those objectives; mechanisms for monitoring the achievement of the objectives; and how the plan will be resourced.
Budget – Framework 3 - Element 4.3	Practice Area = Budget	 A budget includes: Estimates of revenue and expenditure with an explanation of the assumptions and methodologies underpinning the estimates; Explanation of how revenue will be applied; Connection to the strategic objectives; and Explanation of the financial performance and position of the council.

Table 1: Summary of Legislative Requirements

² Local Government Financial Sustainability Nationally Consistent Frameworks, Frameworks 1,2 & 3, May 2009

<u>Elements of a National</u> <u>Approach ²</u>	<u>Core Level</u> <u>Assessment In</u>	<u>Core Level Content and Documentation as per IPR and</u> <u>Agreed Nationally Consistent Frameworks</u>	
	<u>Appendix A and Key</u> <u>Improvement Tasks in</u> <u>Appendix B</u>		
Annual Report – Framework 3 - Element 4.4	Practice Area = Annual Report	 The report of the council's operations (in the annual report) needs to include a broad range of information, particularly: reviews on the performance of the council against strategic objectives; information on a range of other matters such as major works undertaken, the range of activities undertaken, major policy initiatives and major changes in the council's functions or structures; and details about the council, including information about the councillors, the General Manager, senior officers and the organisational structure. 	
Development of an Asset Management Policy – Framework 2 - Element 4.1	Practice Areas = AM Policy	Adopt and implement a Policy that requires the adoption of an asset management plan informed by community consultation and local government financial reporting, and which is supported by training in financial and asset management.	
Strategy and Planning – Framework 2 - Element 4.2 Long Term Financial Plan Asset Management Plans Asset Management Strategy	Practice Areas = AM Strategy and AM Plans	The development of an asset management strategy by councils will enable councils to show how their asset portfolio will meet the service delivery needs of their communities into the future, enable councils' asset management policies to be achieved and ensure the integration of councils' asset management with their long term strategic plans.	
Governance and Management Arrangements- Framework 2 - Element 4.3	Practice Areas = Governance	 Evidence of good corporate governance in asset management would include councils: assigning roles and responsibilities for asset management between the GM, the Council and senior managers/ asset managers; and having a mechanism in place to provide high level oversight of the delivery of council's asset management strategy and plan; and maintaining accountability mechanisms to ensure that council resources are appropriately utilised to address councils' strategic plans and priorities. 	
Defining Levels of Service - Framework 2 - Element 4.4	Practice Area = Levels of Service	Establish service delivery needs and define service levels in consultation with the community; • establish quality and cost standards for services to be delivered from assets; and • regularly review their services in consultation with the community to determine the financial impact of a reduction, maintenance or increase in service	

<u>Elements of a National</u> <u>Approach ²</u>	<u>Core Level</u> <u>Assessment In</u> <u>Appendix A and Key</u> <u>Improvement Tasks in</u> <u>Appendix B</u>	<u>Core Level Content and Documentation as per IPR and</u> <u>Agreed Nationally Consistent Frameworks</u>
Data and Systems - Framework 2 - Element 4.5	Practice Area = Data and Systems	 The enhanced framework provides for the collection of asset management data to: enable the State and/or councils to measure asset management performance over time; identify infrastructure funding gaps; and enable councils to benchmark within the sector and council groups within their State and across Australia. Councils should also continually work to improve the consistency of the financial data they produce, particularly in relation to capital expenditure and the allocations between maintenance, renewal and upgrade.
Skills and Processes - Framework 2 - Element 4.6	Practice Areas = Skills and Processes. This is reporting on how effectively Council is utilising state and national improvement programmes.	 The enhanced asset management framework contains a continuous improvement program, which includes: providing councils with a 'whole of organisation' perspective and a best practice framework to enable continuous improvement of their asset management practices. This would include helping councils to set targets for future improvement; developing and providing ongoing training programs for councillors, council management and officers on key asset management topics in partnership with peak bodies and agencies; and providing the sector with best practice guides on key asset management topics to improve condition assessment, valuation of assets and accounting treatment.
Evaluation - Framework 2 - Element 4.7 and Use of Indicators - Framework 1 - Element 4.7 and	Practice Area = Evaluation This reports on internal and external reporting including how Council reports on service level trends and risks where renewal levels as stipulated in the asset management plan are not being met – in other words there is a renewal gap that is not being addressed.	An asset management framework should contain a mechanism which measures its effectiveness including the asset management programs and initiatives implemented and Accounting Standards are independently audited. AND Indicators are signals used to convey evidence of certain directions being taken by a council and to assess whether or not desired outcomes are being achieved. To be effective, it is essential that indicators: • measure those factors which define financial sustainability; • be relatively few in number; and • be based on information that is readily available and reliable.

1.2 Asset Management Planning Process

Asset management planning is a comprehensive process to ensure that assets are managed and maintained in a way that enables affordable services from infrastructure to be provided in an economically optimal way. In turn, affordable service levels can only be determined by assessing financially sustainability under scenarios with different proposed service levels.

Asset management planning commences with defining stakeholder and legal requirements and needs, incorporating these needs into the organisation's strategic plan, developing an asset management policy, strategy, asset management plan and operational plans, linked to a long-term financial plan with a funding plan.³



³ IPWEA, 2009, Australian Infrastructure Financial Management Guidelines, Quick Guide, Sec 4, p 5.

2. What Assets do we have?

Council uses infrastructure assets to provide services to the community. The range of infrastructure assets and the services provided from the assets is shown in Figure 1.

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Figure 1: Assets In the Scope of This Strategy

BUILDINGS TRANSPORT RECREATION STORMWATER

Asset Category	Current Replacement Cost (Note 9a 30 June 2013	CRC%
BUILDINGS	\$ 73,002,000.00	17.6%
TRANSPORT	\$ 282,339,000.00	68.2%
RECREATION	\$ 17,736,000.00	4.3%
STORMWATER	\$ 40,682,000.00	9.8%
TOTAL	\$ 413,759,000.00	100.0%

3. The Assets and their management

3.1 State of the Assets

The current condition state of the assets is shown in figure 2.

Figure 2: Assets Used For Providing Services

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Condition per Category (low to moderate confidence level)

Figure 3: Overall Asset Condition Profile

Over 13% of assets are in poor or very poor condition (low to moderate confidence level)





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Roads Represents the Major Proportion of Asset Replacement Values

3.2 Service Levels and Performance Reporting

Performance monitoring uses the International Infrastructure Management Manual (IIMM) by IPWEA (Institute of Public Works Engineering Australasia). Armidale Council uses the NAMSPLUS system of standards and templates. IPWEA is represented on the International Standards Organisation (ISO) Committee to ensure that the IIMM and NAMS.PLUS system remains consistent with the ISO 55000 international standards.

IPWEA's NAMS.PLUS includes an enhanced Level of Service table for the Advanced Asset Management Plan template. The NAMS.PLUS community levels of service are based on the City of Edmonton (CoE) State of the Assets reporting criteria for Quality (CoE Condition), Function and Capacity/Utilisation (CoE Demand Capacity).

Quality - refers to the condition of the physical infrastructure that allows it to meet the intended service.

Function – is the ability of the physical infrastructure to meet program delivery needs. *Capacity/Utilization* – is the ability of the physical infrastructure to meet service needs.

Table 2: Quality/Condition Grading

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Very Good: only planned maintenance required

Good: minor maintenance required plus planned maintenance

Fair: significant maintenance required

Poor: significant renewal/rehabilitation required

Very Poor: physically unsound and/or beyond rehabilitation

Source: NAMS.PLUS2 Guidelines, Based on IPWEA, 2011, IIMM, Table 2.5.2, Sec 2.5.4, p 2 | 79.

Table 3: Function Grading

Very Good: meets program/service delivery needs in a fully efficient and effective manner

Good: meets program/service delivery needs in acceptable manner

Fair: meets most program/service delivery needs and some inefficiencies and ineffectiveness present

Poor: limited ability to meet program/service delivery needs

Very Poor: is critically deficient, does not meet program/service delivery and is neither efficient nor effective

Source: IPWEA NAMS.PLUS2 Guidelines, Based on Cloake & Sui, 2002, p 9.

Table 4: Capacity/Utilization Grading

Very Good: usage corresponds well with design capacity and no operational problems experienced

Good: usage is within design capacity and occasional operational problems experienced

Fair: usage is approaching design capacity and/or operational problems occur frequently

Poor: usage exceeds or is well below design capacity and/or significant operational problems are evident

Very Poor: exceeds design capacity or is little used and/or operational problems are serious and ongoing

Source: IPWEA NAMS.PLUS2 Guidelines, Based on Cloake & Sui, 2002, p 9.

3.3 Scenarios to Determine Affordable Levels of Service

Council has consulted with the community on 3 scenarios.

Funding scenario 1 (NoSRV) is based on the current rates with no special rate variations. Council has been engaging the community since the 2009 review of infrastructure sustainability which indicated that Armidale Dumaresq's service levels with the current financial settings are not sustainable. Council's previous asset management strategy reported a \$8.7M backlog and an annual ongoing maintenance and renewal gap. This estimate has been improved with additional analysis to determine the expenditure needed to sustain current service levels into the future.

With the current funding in scenario 1 the annual renewal shortfall for the next 10 years across the infrastructure networks is:

- Transport \$1.1 M
- Buildings \$0.4 M
- Recreation and open spaces \$0.2 M and
- Stormwater drainage \$0.3M

Under this scenario Council will not be able to maintain the current levels of service and the condition of Council's infrastructure assets will deteriorate over the next 10 years.

Council has not adopted this scenario.

Funding scenario 2 (SRV 2)

Council's first rate variation option is the introduction of a 10% Council's first rate variation increase maintained for 7 years before returning to the rate peg. This variation is not inclusive of the normal annual rate pegging variations.

With this additional level funding Council anticipates that it will not be able to maintain current levels of service over the next 10 years. Future improvements to infrastructure will be subject to separate Special Variations and additional community consultation. The details of the renewal gap for assets is shown in each asset management plans for each asset category.

Council has adopted this scenario.

Funding scenario 3 (SRV 1)

Council's second rate variation option is the introduction of a 20% rate increase maintained for 7 years before returning to the rate peg. This variation is not inclusive of the normal annual rate pegging variations.

With this additional funding Council anticipated that it will be able to maintain current levels of service over the next 10 years. Future improvements to infrastructure will be subject to separate Special Variations and additional community consultation.

Council has not adopted this scenario.

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3.4 Affordable Levels of Service – Transport

Council has been engaging the community since the 2009 review of infrastructure sustainability indicated that Armidale Dumaresq's current financial settings were not sustainable.

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Current long term budget allocations from the LTFP have showed decreasing expenditure to transport assets which has increased the 10 year average gap. This will lead to a deterioration in the condition of Council's transport infrastructure over the next 10 years and an increase requirement to improve asset and risk management to ensure more efficient and effective resource allocation and risk management.

Figure 5: Transport Service Levels – Scenario 1 (No SRV)

This Funding Scenario Summary shows the current and projected service levels, budget and expenditure profiles for the current Long Term Financial Plan balanced to the Asset Management Plan.



Figure 6: Transport Service Levels – Scenario 2 (10% SRV applied for 7 years)

This Funding Scenario Summary shows the current and projected service levels, budget and

Council's rate variation option is the introduction of an upfront 10% rate increase maintained for 7 years before returning to the rate peg. This variation is not inclusive of the normal annual rate pegging variations. This funding is still insufficient to maintain current levels of service over the next 10 years and condition will continue to deteriorate. Future improvements to infrastructure will be subject to separate Special Variations and additional community consultation.



3.5 Affordable Levels of Service – Buildings

Under the current funding the current service levels cannot be maintained and there is an annual maintenance and renewal shortfall of \$403k for the community's buildings based on 2013 budget figures as reported in the CSP. Current long term budget allocations from the LTFP have showed increasing expenditure to buildings which has decreased the 10 year average gap. This funding is still insufficient to maintain current levels of service and will lead to a deterioration in the condition of Council's buildings portfolio over the next 10 years.

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Figure 7: Buildings Service Levels – Scenario 1 (No SRV)

This Funding Scenario Summary shows the current and projected service levels for the current Long Term Financial Plan balanced to the Asset Management Plan.





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3.6 Affordable Levels of Service – Stormwater Drainage

Under the current funding the current service levels cannot be maintained and there is an annual maintenance and renewal shortfall for Council's stormwater drainage infrastructure as reported in the asset management plan. This will lead to a deterioration in the condition of Council's drainage network over the next 10 years.

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Figure 10: Stormwater Drainage Service Levels – Scenario 2 (10% SRV)

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With the levels of funding shown in the asset management plan, condition of Council's drainage assets are still expected to deteriorate over the next 10 years but at a slower rate with Council able to channel the additional funding into priority works.

3.7 Affordable Levels of Service – Recreation and Open Space

Current long term budget allocations from the LTFP have showed decreasing expenditure to recreation assets which has increased the 10 year average gap. This will lead to a deterioration in the condition of Council's recreation assets over the next 10 years. Recreation assets are particularly sensitive to cost increases over the rate peg. These include energy, water and materials costs that all tend to increase by 1.5% - 2% more than the annual CPI based rate peg amount.

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Figure 12: Recreation and Open Space Service Levels – Scenario 2 (10% SRV)

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3.8 Asset Governance Structure

Work has commenced on the improvement of asset management governance. A draft charter has been developed and implementation will progress early in 2014.

This will ensure a 'whole of organisation' approach to asset management can be developed to ensure Armidale Council can:

- demonstrate corporate support for sustainable asset management,
- encourage corporate buy-in and responsibility,
- coordinate strategic planning, information technology and asset management activities,
- promote uniform asset management practices across the organisation,
- continue to develop information sharing across IT hardware and software,
- pooling of corporate expertise
- championing of asset management process,
- wider accountability for achieving and reviewing sustainable asset management practices.
- Manage and communicate risk



Figure 13: Asset Management Roles and Responsibilities

4. Where do we want to be?

4.1 Vision, Mission, Goals and Objectives

The organisation has adopted a Vision for the future in the Strategic Plan:

"Excellent Lifestyle – Sustainable Growth"

Council's purpose is set out in the adopted mission statement:

"To provide community leadership and excellent local government services in a sustainable and efficient manner, to enhance our area's social, economic, and environmental qualities."

The Community Strategic Plan sets goals and objectives to be achieved in the planning period. The goals set out where asset custodian wants to be. The objectives are the steps needed to get there. Goals and objectives relating to the delivery of services from infrastructure are shown in Table 3.

Key Element	Principle	Strategic Objectives
Our Infrastructure	This principle focuses on the physical assets under Council's care and management, which are necessary for the effective functioning of the community; these assets include utility and transport services, as well as public buildings and recreation facilities.	 Maintain and improve water and sewer utilities Improve Council's waste management services Maintain and improve stormwater drainage infrastructure Improve and maintain parks and open spaces Improve access to parks, open spaces and recreation facilities Improve sports grounds and water recreation facilities Improve opportunities for eco tourism and recreation Improve library facilities Improve the Mall Improve Community Facilities (halls etc.) Maintain and improve roads and bridges Improve airport facilities Provide safe and convenient options to drive, park, cycle or walk

Table 5: Goals and Objectives for Infrastructure Services⁴

⁴ Source: *Community Strategic Plan 2013-2023*

Asset Management Policy defines the vision and service delivery objectives for asset management in accordance with the Strategic Plan and applicable legislation.

The asset management strategy is developed to support the asset management policy and is to enable the organisation to show:

- how its asset portfolio will meet the affordable service delivery needs of the community into the future,
- enable asset management policies to be achieved, and
- ensure the integration of asset management with its long term strategic plans.

The asset management policy is included in appendix A.

4.3 Asset Management Vision

To ensure the long-term financial sustainability of the organisation, it is essential to balance the community's expectations for services with their ability to pay for the infrastructure assets used to provide the services. Maintenance of service levels for infrastructure services requires appropriate investment over the whole of the asset life cycle. To assist in achieving this balance, the organisation aspires to:

Develop and maintain asset management governance, skills, process, systems and data in order to provide the level of service the community need at present and in the futures, in the most cost-effective and fit for purpose manner.

In line with the vision, the objectives of the asset management strategy are to:

- ensure that the infrastructure services are provided in an economically optimal way, with the appropriate level of service to residents, visitors and the environment determined by reference to financial sustainability,
- safeguard assets including physical assets and employees by implementing appropriate asset management strategies and appropriate financial resources for those assets,
- adopt the long term financial plan as the basis for all service and budget funding decisions,
- meet legislative requirements for all operations,
- ensure resources and operational capabilities are identified and responsibility for asset management is allocated,
- provide high level oversight of financial and asset management responsibilities through Audit Committee/GM reporting to the organisation on development and implementation of Asset Management Strategy, Asset Management Plan and Long Term Financial Plan.

Strategies to achieve this position are outlined in Section 5.

5. Strategy Implementation

The implementing strategies above need the following projects and programs

Table 6:	Asset	Management	Projects	and	Programs

No	Projects and Programs	Desired Outcome
1	Move from Annual Budgeting to Long Term Financial Planning	The long term implications of services are considered in annual budget deliberations.
2	Develop and annually review Asset Management Plans covering at least 10 years for all major asset classes (80% of asset value).	Identification of services needed by the community and required funding to optimise 'whole of life' costs.
3	Develop Long Term Financial Plan covering 10 years incorporating asset management plan expenditure projections with a sustainable funding position outcome.	Sustainable funding model to provide services.
4	Incorporate Year 1 of Long Term Financial Plan revenue and expenditure projections into annual budgets.	Long term financial planning drives budget deliberations.
5	Review and update asset management plans and long term financial plans after adoption of annual budgets. Communicate any consequence of funding decisions on service levels and service risks.	The asset custodian and the community are aware of changes to service levels and costs arising from budget decisions.
6	Report financial position, financial sustainability and performance against strategic objectives in Annual Reports.	Financial sustainability information is available for all Armidale Council stakeholders.
7	Ensure decisions are made from accurate and current information in asset registers, on service level performance and costs and 'whole of life' costs.	Improved decision making and greater value for money.
8	Report on resources and operational capability to deliver the services needed by the community in the Annual Report.	Services delivery is matched to available resources and operational capabilities.
9	Ensure responsibilities for asset management are identified and incorporated into staff position descriptions.	Responsibility for asset management is defined.
10	Implement an Improvement Plan to realize the level of maturity needed to achieve this asset management strategy with timing aligned to phases 1, 2 and 3.	Essential core capacity in place needed to implement the necessary levels of asset, risk and project management.
11	Report six monthly to the organisation by Audit Committee/GM on development and implementation of Asset Management Strategy, AM Plans and Long Term Financial Plans.	Oversight of resource allocation and performance.

6. Asset Management Improvement Plan

Following adoption of this strategy a review of Armidale Council asset management maturity will be carried out to set the improvement plan needed for Armidale Council to achieve target maturity needed to achieve phases 1, 2 and 3 of this asset management strategy.

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7. Community Consultation and Engagement Results

A survey was conducted by Jetty Research using a random fixed line telephone poll of 300 residents aged 18+. The feedback was as follows:

- 10% of respondents agreed with Councils preferred option (option 1) of a 20% SRV that would last 7 years.
- 46% preferred a stepped approach (option 2) with a 10% rise in year 1 and 10% rise in year 2 that would last 7 years
- 41% did not accept either of these options
- 3% were unsure.

56% were prepared to accept in increase of 20% with the majority favoring a stepped approach.

The survey commenced with residents asked to rank their satisfaction with, and importance of 13 Council managed facilities and services. Satisfaction was ranked on a 1-5 sliding scale, where 1 was very dissatisfied, 3 was neutral and 5 was very satisfied. Importance also used a 5-point ranking, with 1 being not at all important and 5 being very important.



Figure 14: Satisfaction breakdown for 13 facilities and services

Jetty Research Report 11th *December, Graph* 1.1

The Jetty Research report suggests that the lowest gap between satisfaction and importance lies in community facilities, kerbs and guttering and town beautification and streetscaping. (These then are the three areas where community expectation is closest to being met.)

Conversely, the gap is widest in the areas of drainage/protection of waterways and maintenance of sealed roads. These are the council-provided services where community expectation is outweighing satisfaction by the greatest amount. Roads provides the greatest risk because it is the combination of the greatest expectation gap and greatest funding gap for the next 10 years.

Somico	Satisfaction	Importance	Expectation
Service	mean	mean	gap
Community facilities such as public halls	3.35	3.59	24
Kerb and guttering	3.47	3.72	25
Town beautification and streetscaping	3.56	3.89	33
Libraries	3.36	3.74	38
Cleanliness of streets	3.77	4.19	43
Bridges	3.43	3.87	44
Parks, reserves and playgrounds	3.69	4.43	75
Waste collection and disposal	3.67	4.51	84
Road maintenance - unsealed roads	2.70	3.58	87
Public toilets	2.89	3.81	92
Footpaths and cycleways	3.13	4.12	99
Drainage and protection of waterways	3.07	4.22	-1.15
Road maintenance - sealed roads	3.13	4.42	-1.29

Table 7: Expectation Gap – Importance vs. satisfaction



Appendix A Asset Management Policy

				Doc No	
Armidale COUNCIL	ASSE [®] POLIC	ASSET MANAGEMENT POLICY			Dате 21 Feb 2014
CONTROLLER:		APPROVED BY:	Review Date		
GENERAL MANAGER		COUNCIL"[Enter date]"	"[Enter date]"		

1.0 PurposeTo set guidelines for implementing consistent asset management processes
throughout Armidale Council.

2.0 Objective To ensure adequate provision is made for the long-term replacement of major assets by:

- Ensuring that Council's services and infrastructure are provided in a sustainable manner, with the appropriate levels of service to residents, visitors and the environment.
- Safeguarding Council assets including physical assets and employees by implementing appropriate asset management strategies and appropriate financial resources for those assets.
- Creating an environment where all Council employees take an integral part in overall management of Council assets by creating and sustaining asset management awareness throughout the organisation by training and development.
- Meeting legislative requirements for asset management.
- Ensuring resources and operational capabilities are identified and responsibility for asset management is allocated.
- Demonstrating transparent and responsible asset management processes that align with demonstrated best practice.
- **3.0 Scope** This policy applies to all Council activities.
- 4.0 Policy 4.1 Background

4.1.1 Council is committed to implementing a systematic asset management methodology in order to apply appropriate asset management best practices across all areas of the organisation. This includes ensuring that assets are planned, created, operated, maintained, renewed and disposed of in accordance with Council's priorities for service delivery.

4.1.2 Council owns and uses approximately \$391 M of non-current assets to support its core business of delivery of service to the community.

4.1.3 Asset management practices impact directly on the core business of the organisation and appropriate asset management is required to achieve our strategic service delivery objectives.

4.1.4 Adopting asset management principles will assist Council in achieving its Strategic Longer-Term Plan and Long Term Financial objectives.

4.1.5 A strategic approach to asset management will ensure that the Council delivers the highest appropriate level of service through its assets. This will provide positive impact on;

- Members of the public and staff;
- Council's financial position;
- The ability of Council to deliver the expected level of service and infrastructure;
- The political environment in which Council operates; and
- The legal liabilities of Council.

4.2 Principles

4.2.1 A consistent Asset Management Strategy must exist for implementing systematic asset management and appropriate asset management best-practice throughout all Departments of Council.

4.2.2 All relevant legislative requirements together with political, social and economic environments are to be taken into account in asset management.

4.2.3 Asset management principles will be integrated within existing planning and operational processes.

4.2.4 Asset Management Plans will be developed for major service/asset categories. The plans will be informed by community consultation and financial planning and reporting.

4.2.5 An inspection regime will be used as part of asset management to ensure agreed service levels are maintained and to identify asset renewal priorities.

4.2.6 Asset renewals required to meet agreed service levels and identified in adopted asset management plans and long term financial plans will be fully funded in the annual budget estimates.

4.2.7 Service levels agreed through the budget process and defined in adopted Asset Management Plans will be fully funded in the annual budget estimates.

4.2.8 Asset renewal plans will be prioritised and implemented progressively based on agreed service levels and the effectiveness of the current assets to

	 provide that level of service. 4.2.9 Systematic and cyclic reviews will be applied to all asset classes and are to ensure that the assets are managed, valued and depreciated in accordance with appropriate best practice and applicable Australian Standards. 4.2.10 Future life cycle costs will be reported and considered in all decisions relating to new services and assets and upgrading of existing services and assets. 4.2.11 Future service levels will be determined in consultation with the 				
	4.2.12 Training in asset and financial management will be provided for councillors and relevant staff.				
5.0 Legislation	Local Government Act 1993.				
	Local Government Amendment (Planning and Reporting) Act 2009. The Act sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery. The amendments to the Act give effect to the Integrated Planning and Reporting framework.				
6.0 Related Documents	Asset Management Strategy and associated Asset Management Plans.				
Responsibility	Councillors are responsible for adopting the policy and ensuring that sufficient resources are applied to manage the assets. The GENERAL MANAGER has overall responsibility for developing an asset management strategy, plans and procedures and reporting on the status and effectiveness of asset management within Council.				

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Review Date This policy has a life of 4 years. It will be reviewed in April 2018.

Council Meeting Date

Appendix B Capital Works Prioritisation Matrix

Using Example Data – To be Applied to each capital project.

Description	Estimate			Cumulative Estimate	Appraisal Score	Risk Indicator	Annual Service	Operating Expense	Addit. Revenue			
	Renewal	Upgrade/ expansion	Total				Cost	(\$/pa)	%age			
Parks and Reserves												
NON DISCRETIONARY												
Renewal A	\$50,000		\$50,000	\$50,000								
DISCRETIONARY												
Proposal B	\$0	\$105,000	\$105,000	\$155,000	92.50	L	\$30,600	\$22,100	0.04%			
Proposal C	\$60,000	\$130,000	\$190,000	\$345,000	91.00	н	\$37,400	\$22,600	0.09%			
Total	\$110,000	\$585,000	\$695,000					\$71,700	0.32%			

Source: Asset Investment Guidelines, Local Government Victoria
Practice Area	Improvement Plan Actions	Status
Strategic Longer Term Plan	1. Update the service level projection in the CSP and ensure service measures align with the community service levels in the AMPs.	In progress – due June 2014
Annual Budget	1. Ensure budget aligns with CSP service targets.	In progress – due for 30 June 2014 report
Annual Report	1. Ensure the special schedule 7 summary aligns with AMPs and annual report overview	In progress – due for 30 June 2014 report
	2. Add a state of the assets graph showing % Good/Fair/Poor for quality/condition, function and capacity.	Need condition inspection programme over the next 2 years to improve confidence levels
AM Policy	1. Review policy as needed following completion of IPR documents.	Completed
AM Strategy	. Ensure the strategy covers the following areas under IPR:	Completed
	The Asset Management Strategy must include a council endorsed Asset Management Policy. The Asset Management Strategy must identify assets that are critical to the Council's operations and outline risk management strategies for	
	these assets. The Asset Management Strategy must include specific actions required to improve Council's asset management capability and projected resource requirements and timeframes.	
AM Plans	1. Complete asset management plans using the NAMS templates.	Completed
Governance and Management	1. AM working group implements the Asset Management Improvement Plan AMIP and reports progress to EMT.	In Progress Due 2014
	2. This report is the initial AMIP.	
	3. Use available template for prioritising capital expenditures.	
Levels of Service	1. Use AMP and templates to develop technical and community service levels	Improve confidence
	2. Link community service levels in AMPs with CSP.	ievels

Practice Area	Improvement Plan Actions	Status
Data & Systems	 Implement a knowledge management strategy including business processes to update component and financial registers. Formalise the current high level of knowledge and expertise used to develop forward programmes. Add risk management documentation as part of the inspection 	In Progress Due 2014 - 15
	procedures. 4. Use this maturity assessment to benchmark AM performance.	
Skills and Processes	 Document audit trail processes for asset register updates. Implement risk management processes to link AMP risk management plan to high level residual risks in a corporate risk register. Knowledge management strategy will need to address what to do about GIS in the next 12 months. 	In Progress Due 2014 - 15
Evaluation	1. Use this AMIP to implement all tasks through.	In Progress Due 2014 - 15





Buildings and Property Asset Management Plan 2014 to 2024



armidale.nsw.gov.au



Applies to:	
Officer Responsible:	
Associated Documents:	Any listed below
Legislation:	Any listed below
History:	Version I - 29 June 2012
	Version II - February 2014
G&R Meeting Date:	
Council Meeting:	
Council Minute Number:	
TRIM File Number:	INT/2014/02127
Review Date:	
Reasons for Change:	
Author:	Phil Brown
Reviewer:	Nathalie Heaton
Approver:	Keith Lockyer



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1 Executive Summary

This Asset Management Plan is prepared under the direction of Council's vision, mission, goals and objectives.

Our vision is:

Excellent Lifestyle - Sustainable Growth

Our mission is:

To provide Community leadership and Local Government Services in a sustainable and effective manner and

To enhance our areas social, economic and environmental values

Context

Armidale Dumaresq Council provides buildings management for operational, community and rental purposes.

In addition, property and buildings are maintained for the benefit of community groups.

The Buildings and Property Service provides maintenance and management for the following:

- Fixed assets such as buildings
- Fixed assets located within buildings such as carpets, kitchens, etc
- Non-fixed assets such as furniture, partitions, etc
- Rental properties
- Historic properties

These infrastructure assets have a replacement value of \$27.7 million

What does it cost?

The projected outlays necessary to provide the services covered by this Asset Management Plan (AM Plan) includes operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is \$1,529,000 on average, per year.

Estimated available funding for this period is \$1,126,000, on

average, per year which is 74% of the cost to provide the service. This is a funding shortfall of \$403,000, on average, per year. Projected expenditure required to provide services in this AM Plan compared with planned expenditure currently included in the Long Term Financial Plan are shown in the graph below:



What we will do

We plan to provide building maintenance services for the following:

 Operation, maintenance, renewal and upgrade of operational, community, public halls, rental and heritage properties to meet service levels set in annual budgets within the 10 year planning period

What we cannot do

We do not have enough funding to provide all services at the desired service levels or provide new services. Works and services that cannot be provided under present funding levels are:

• Services outside the adopted Council maintenance service agreement.

Managing the risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. Identification of all major risks is an ongoing program of Council.

We will endeavor to manage any risks within available funding by:

- Undertaking regular inspections
- Preparing action plans to minimise disruption to services
- Continuing to identify productivity savings.

Confidence levels

This AM Plan is based on medium level of confidence information.

The next steps

The actions resulting from this Asset Management Plan are:

- Improve risk strategies
- Refine service levels
- Valuation methods
- Improve condition assessments.

Questions you may have

What is this plan about?

This Asset Management Plan covers the infrastructure assets that serve the Armidale Dumaresq community's buildings needs. These assets include civic, operational and community buildings throughout the community area that enable people to access a range of Local Government Services.

What is an Asset Management Plan?

Asset Management Planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An Asset Management Plan details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

Why is there a funding shortfall?

Most of Council's buildings were constructed by the community and from government grants, often provided and accepted without consideration of ongoing operations, maintenance and replacement needs.

Many of these assets are approaching the later years of their life and require replacement, services from the assets are decreasing and maintenance costs are increasing.

Our present funding levels are insufficient to continue to provide existing services at current levels in the medium term.

What options do we have?

Resolving the funding shortfall involves several steps:

- 1 Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels
- 2 Improving our efficiency in operating, maintaining, renewing and replacing existing assets to optimise life cycle costs
- 3 Identifying and managing risks associated with providing services from infrastructure
- 4 Making trade-offs between service levels and costs to ensure that the community receives the best return from infrastructure
- 5 Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs
- 6 Consulting with the community to ensure that Buildings services and costs meet community needs and are affordable
- 7 Developing partnership with other bodies, where available to provide services
- 8 Seeking additional funding from governments and other bodies to better reflect a 'whole of government' funding approach to infrastructure services

What happens if we don't manage the shortfall?

It is likely that we will have to reduce service levels in some areas, unless new sources of revenue are found. For buildings and property, the service level reduction may include reduced opening hours or availability.

What can we do?

We can develop options, costs and priorities for future buildings and property services, consult with the community



to plan future services to match the community service needs with the ability to pay for services and maximise community benefits against costs.

What are we doing?

In 2014 Council intended to apply to IPART for a 20% special rate variation (SRV), which would have applied over the next seven years, in order to increase its rate income to cover the cost shortfall of renewing critical assets and infrastructure.

An extensive community consultation process was undertaken to address the infrastructure renewal cost to income shortfall.

The proposals promoted to the community contain three scenarios:

Scenario 1: increase rates by the normal rate pegging increase.

Scenario 2: increase rates by a 20% Upfront Special Rate Variation for seven years.

Scenario 3: increase rates by 10% per year for two years.

In February 2014 Council resolved to apply to IPART for a 10% (plus rate peg) special rate variation over seven years. This plan has been adjusted to meet that change.

Currently Council's asset renewal ratio has declined from 73% to 48% over four (4) years. This has developed due to improved asset management data, asset revaluations and increased cost of renewals.

Currently Council is under-funding its asset renewals by \$4,631,000. The SRV is intended to improve this situation, however, Council will also need to review service levels and consolidate replacement strategies to get to a long term sustainable position.

What can you do?

Council will be pleased to consider your thoughts on the issues raised in this Asset Management Plan and suggestions on how we may change or reduce the buildings and property mix of services to ensure that the appropriate level of service can be provided to the community within

available funding.

Buildings and Property Asset Management Plan 2014 - 2024



2 Introduction

2.1 Background

This Asset Management Plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements and to communicate funding needed to provide the required levels of service over a 10 year planning period.

The Asset Management Plan follows the format for AM Plans recommended in Section 4.2.6 of the International Infrastructure Management Manual¹.

The Asset Management Plan is to be read with Council's Asset Management Policy, Asset Management Strategy and the following associated planning documents:

- Community Strategic Plan, Delivery Plan and Operational Plan
- Disability Access Plan

The infrastructure assets covered in this Asset Management Plan are shown in the following table. These assets are used to provide community, local government administration and library services to the community.

Assets Covered by this Plan

Asset Category	Dimension	Replacement Value (\$M)
Buildings used for operational	Civic Administration Building	
purposes	Works Depot Mann Street	
	SES Headquarters Building	
	NSW Rural Fire Service Fire Control Centre NE Zone	
	Command	
	NSW Rural Fire Service Brigade Sheds	
	Companion Animals Shelter	
	Livestock Selling Complex	
	Library Administration Building	
	Works depots Grafton Rd	
	Totals	\$12,735,000
Buildings used for community	Traffic Education Centre	
purposes	Folk Museum	
	Hillgrove Rural Life Museum	
	Railway Museum	
	Armidale Regional War Memorial Library	
	Visitors Information Centre	
	Kent House	
	Hughes House	
	Wollomombi Hall and Public Toilets	
	Dangarsleigh Hall	

¹ IPWEA, 2011, Sec 4.2.6, *Example of an Asset Management Plan Structure*, pp 4|24 – 27.



Asset Category	Dimension	Replacement Value (\$M)
	Puddledock Hall	
	Hillgrove Hall and Public Toilets	
	East Armidale Hall	
	Total	
	Rusden Street Secure Car Park	
	188 Rusden Street	
	Old Council Chambers	
	Moran Oval Building Cluster	
	Building 1	
	Building 2	
	Building 3	
	Armidale City Band Building	
	Grafton Road Depot	
	Total	\$7,100,000
Rental Properties	Town Hall	
	Craft Centre	
	Total	\$3,935,000
Heritage Buildings		\$4,000,000
TOTAL		\$27,770,000



Key stakeholders in the preparation and implementation of this Asset Management Plan are shown in the table below.

Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Councillors	Represent needs of community/shareholders,Allocate resources to meet the organisation's objectives in providing services
	while managing risks,Ensure organisation is financially sustainable.
CEO/General Manager	Financial and human Resourcing
Community	User safetyCommunity satisfaction

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by purchase and contract, construction by our staff and/or by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance;
- Managing the impact of growth through demand management and infrastructure investment;
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service;
- Identifying, assessing and appropriately controlling risks; and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed.²

2.3 Plan Framework

Key elements of the plan are:

- Levels of service specifies the services and levels of service to be provided by Council
- Future demand how this will impact on future service delivery and how this is to be met
- Life cycle management how we will manage our existing and future assets to provide defined levels of service
- Financial summary what funds are required to provide the defined services
- Asset management practices
- Monitoring how the plan will be monitored to ensure it is meeting Council's objectives
- Asset management improvement plan

² Based on IPWEA, 2011, IIMM, Sec 1.2 p 1|7.



A road map for preparing an Asset Management Plan is shown below:

Road Map for preparing an Asset Management Plan







2.4 Core and Advanced Asset Management

This Asset Management Plan is prepared as a 'core' Asset Management Plan over a 20 year planning period in accordance with the International Infrastructure Management Manual³. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Future revisions of this Asset Management Plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

2.5 Community Consultation

This 'core' Asset Management Plan is prepared to facilitate community consultation initially through feedback on public display of draft Asset Management Plans prior to adoption by the Council. Future revisions of the Asset Management Plan will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and the community in matching the level of service needed by the community, service risks and consequences with the community's ability and willingness to pay for the service.

3 Levels of Service

3.1 Customer Research and Expectations

Council engaged a consultancy firm to undertake a survey of the community to determine satisfaction with the services provided by Council. The survey was undertaken in 2009 and a final report was presented to Council in May 2009. This telephone survey polls a sample of residents on their level of satisfaction with Council's services. The most recent customer satisfaction survey reported satisfaction levels for the following services.

This survey rated satisfaction against importance. Libraries received a high importance and high satisfaction rating. However, public halls were considered to be of lower importance and received a lower satisfaction rating to be of low importance.

Community Satisfaction Survey Levels

Performance Measure	Satisfaction Level				
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied
Libraries		V			
Public halls			V		

³ IPWEA, 2011, IIMM.





Council uses this information in developing its Strategic Plan and in allocation of resources in the budget.

In April 2012, Council adopted a service level plan for all asset based services of Council that specified particular service levels relating to assets. A further survey to benchmark community wellbeing (conducted July/August 2011) revealed that only 3% surveyed were dissatisfied with accessability and appearance of public areas indicating an acceptance of the current service levels.

However, property and building services maintain buildings and facilities for operational purposes such as the Civic Administration Building (administrative services), Kent and Hughes House (aging and disability services) along with other facilities that house community groups.

3.2 Strategic and Corporate Goals

Relevant organisation goals and objectives and how these are addressed in this Asset Management Plan are shown in in the table below.

Goal	Objective	How Goal and Objectives are addressed in AM Plan
To have quality and affordable infrastructure to support economic growth	Council to achieve asset sustainability and be able to accommodate economic growth by 2021	Prepare and Implement Asset Management Plans
Community has access to a broad range of natural and constructed recreational facilities	Increased use of shared infrastructure by 2020	Facilities that are multi use Level of service appropriate to shared facilities usage

Organisation goals and how these are addressed in this Plan

The Council will exercise its duty of care to ensure public safety in accordance with the Infrastructure Risk Management Plan prepared in conjunction with this AM Plan. Management of infrastructure risks is covered in Section 5.2.

3.3 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations.



These include:

Legislative Requirements

Legislation	Requirement
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local
	governments including the preparation of a Long Term Financial Plan
	supported by Asset Management Plans for sustainable service
	delivery
Environmental Planning and Assessment	Fire safety regulations and disability access
Act 1979	
Building Code of Australia	Determine the standards required for the construction of new and
	upgrade of existing buildings
Australian Standards	Determines the standards required.
Heritage Act 1977	Server to promote and encourage the preservation of the State's
	heritage

3.4 Current Levels of Service

Community Levels of Service - measure how the community receives the service and whether Council is providing community value.

Community levels of service measures used in the Asset Management Plan are:

- Quality How good is the service?
- Function Does it meet users' needs?
- Capacity/Utilisation Is the service over or under used?

Technical Levels of Service - supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations the regular activities to provide services such as opening hours, cleaning frequency, mowing frequency, etc
- Maintenance the activities necessary to retain assets as near as practicable to an appropriate service condition (eg. road patching, unsealed road grading, building and structure repairs)
- Renewal the activities that return the service capability of an asset up to that which it had originally (eg. frequency and cost of road resurfacing and pavement reconstruction, pipeline replacement and building component replacement)
- Upgrade the activities to provide a higher level of service (eg. widening a road, sealing an unsealed road,



replacing a pipeline with a larger size) or a new service that did not exist previously (eg. a new library).

Asset Managers plan, implement and control technical service levels to influence the customer service levels.⁴

Our current service levels are detailed in the table below.

Current Service Levels

Property Type	Level of Service
Community facilities	1 Building assets and surrounds are presented in a
	clean, safe and hygienic state.
	2 Progressive short and medium term maintenance
	is carried out with minimal disruption to staff and
	the public (urgent matters within 24 hours and
	others within 10 working days).
Rental properties	1 Building assets and surrounds are presented in a
	clean, safe and hygienic state.
	2 Repairs are carried out in a timely and
	professional manner. Progressive short and
	medium term maintenance is carried out with
	minimal disruption to tenants.
Public halls	1 Building assets and surrounds are presented in a
	clean, safe and hygienic state.
	2 Venues set up as per client requirements.
	Conditions of use enforced. Venue reinstated at
	completion of function.
Operational buildings	1 Building assets and surrounds are presented in a
	clean, safe and hygienic state.
	2 Progressive short and medium term maintenance
	is carried out with minimal disruption to staff and
	the public (urgent matters within 24 hours and
	others within 10 working days).

3.5 Desired Levels of Service

Indications of desired levels of service are obtained from community consultation/engagement. The Asset Management Planning process includes the development of three (3) scenarios to develop levels of service that are financially sustainable. The scenarios of lower, current and improved levels of service have been tested with community surveys and most are satisfied with the current level of service.

⁴ IPWEA, 2011, IIMM, p 2.22



4 Future Demand

4.1 Demand Drivers

Drivers affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecast

The present position and projections for demand drivers that may impact future service delivery and utilisation of assets were identified and are documented in the table below.

4.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and utilisation of assets are shown in the table below.

Demand Drivers	Present Position	Projection	Impact on Services
Population Growth estimated to be 1% per annum	26,050 people	28,650 people in 10 years	Overall increase in services
Demographics	Ageing population - most in 45 to 65 age bracket	In 10 years, 23% of population will be over 60	Increased demand for aged services. More demand for community facilities and other services that cater to elderly clientele

Demand Drivers, Projections and Impact on Services

4.4 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include non-asset solutions, insuring against risks and managing failures.

Non-asset solutions focus on providing the required service without the need for the organisation to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets to deteriorate beyond current service levels) or educating customers to accept appropriate asset failures⁵. Examples of non-asset solutions include providing services from existing infrastructure such as aquatic centres and libraries that may be in another community area or public toilets provided in commercial premises.

Opportunities identified to date for demand management are shown in the table below. Further opportunities will be developed in future revisions of this Asset Management Plan.

⁵ IPWEA, 2011, IIMM, Table 3.4.1, p 3|58.



Demand Management Plan Summary

Demand Driver	Impact on Services	Demand Management Plan
Ageing Population	More demand for facilities	Encourage shared use
Ageing Population	Overcrowding	Increased daytime access to facilities

4.5 Asset Programs to meet Demand

The new assets required to meet growth will be acquired free of cost from land developments and constructed/acquired by the organisation. New assets constructed/acquired by the organisation are discussed in Section 5.5. The cumulative value of new contributed and constructed asset values are summarised in the figure below.

Upgrade and New Assets to meet Demand

Armidale Dumaresq - Upgrade & New Assets to meet Demand (Buildings_S1_V1)



Contributed Constructed

Acquiring these new assets will commit the organisation to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs in Section 5.



5 Lifecycle Management Plan

The lifecycle management plan details how the organisation plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while optimising life cycle costs.

5.1 Background Data

5.1.1 Physical Parameters

The assets covered by this Asset Management Plan are shown in the table on page 9.

The age profile of the assets include in this AM Plan is shown in the figure below.

Asset Age Profile



Armidale Dumaresq - Age Profile (Buildings_S1_V1)

5.1.2 Asset Capacity and Performance

Council's services are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in the table below.



Known Service Performance Deficiencies

Location	Service Deficiency
Community buildings	Whilst most buildings meet the Building Code of Australia, more could be done to enhance their fire safety, security and comfort levels
Public halls	The general condition of public halls is good. However, fire safety and air conditioning will assist to serve the ageing population at a later stage

The above service deficiencies were identified from condition monitoring and visual inspection by the Manager.

5.1.3 Asset Condition

Condition is monitored by visual inspection by the Manager and Council's Building Inspectors.

The condition profile of our assets is shown in the figure below.

Asset Condition Profile



Armidale Dumaresq - Asset Condition Profile (Buildings_S1_V1)

Condition is measured using a 1 - 5 grading system⁶ as detailed in the table below.

⁶ IPWEA, 2011, IIMM, Sec 2.5.4, p 2|79.



Useful Life

Simple Condition Grading Model

Condition Grading	Description of Condition
1	Very Good: only planned maintenance required
2	Good: minor maintenance required plus planned maintenance
3	Fair: significant maintenance required
4	Poor: significant renewal/rehabilitation required
5	Very Poor: physically unsound and/or beyond rehabilitation

5.1.4 Asset Valuations

The value of assets recorded in the Asset Register as at 30 June 2013 covered by this Asset Management Plan is shown below. Assets were last revalued at June 2013. Assets are valued at Brownfield rates.



Property and Building were revalued and useful lives updated as at the June 2013.

Various ratios of asset consumption and expenditure have been prepared to help guide and gauge asset management performance and trends over time:

Rate of Annual Asset Consumption	1%
(Depreciation/Depreciable Amount)	
Rate of Annual Asset Renewal	25%
(Capital Renewal exp/Depreciable Amount)	
Rate of Annual Asset Upgrade/New	10%
(Capital Upgrade exp/Depreciable Amount)	
Rate of Annual Asset Upgrade/New	10%
(Including Contributed Assets)	

In 2014 the organisation plans to renew assets at 0% of the rate they are being consumed and will be increasing its asset stock by 40% in the year.

⁷ Also reported as Written Down Current Replacement Cost (WDCRC).



5.1.5 Historical Data

Council holds historical data on financial expenditure in its finance system.

5.2 Infrastructure Risk Management Plan

An assessment of risks⁸ associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial shock' to the organisation. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' - requiring prioritised corrective action identified in the Infrastructure Risk Management Plan, together with the estimated residual risk after the selected treatment plan is operational are summarised in the table below. These risks are reported to management and Council.

Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Nil identified					

5.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, eg. street sweeping, grass mowing and street lighting.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

5.3.1 Operations and Maintenance Plan

Operations activities affect service levels including quality and function through street sweeping and grass mowing frequency, intensity and spacing of street lights and cleaning frequency and opening hours of building and other facilities.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating, eg. road patching but excluding rehabilitation or renewal. Maintenance may be classified into reactive, planned and specific maintenance work activities.

Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned maintenance is repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

1



Specific maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacing air conditioning units, etc. This work falls below the capital/maintenance threshold but may require a specific budget allocation.

Actual past maintenance expenditure is shown in the table below.

Maintenance Expenditure Trends

Year	Maintenance Expenditure		
	Planned and Specific	Unplanned	
2009/10	\$609,979	\$ not separated ≤ 5%	
2010/11	\$719,780	\$ not separated ≤ 5%	
2011/12	\$1,013,869	\$ not separated ≤ 5%	

Planned maintenance work is currently estimated at 95% of total maintenance expenditure.

Maintenance expenditure levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance expenditure levels are such that will result in a lesser level of service, the service consequences and service risks have been identified and service consequences highlighted in this AM Plan and service risks considered in the Infrastructure Risk Management Plan.

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement.

5.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner
- Undertaking maintenance activities through a planned maintenance system to reduce maintenance costs and improve maintenance outcomes. Undertake cost-benefit analysis to determine the most cost-effective split between planned and unplanned maintenance activities (50 70% planned desirable as measured by cost)
- Maintain a current Infrastructure Risk Register for assets and present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs
- Review asset utilisation to identify under-utilised and over-utilised assets and appropriate remedies and customer demand management options
- Maintain a current hierarchy of critical assets and required operations and maintenance activities
- Develop and regularly review appropriate emergency response capability
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used

Critical Assets

Critical assets are those assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, organisations can target and refine investigative



activities, maintenance plans and capital expenditure plans at the appropriate time.

Standards and Specifications

Maintenance work is carried out in accordance with the Building Standards of Australia.

5.3.3 Summary of Future Operations and Maintenance Expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in the figure below.

Note that all costs are shown in 2014 dollar values.



Projected Operations and Maintenance Expenditure

Armidale Dumaresq - Projected Operations & Maintenance Expenditure (Buildings_S1_V1)



Deferred maintenance, ie. works that are identified for maintenance and unable to be funded are to be included in the risk assessment and analysis in the Infrastructure Risk Management Plan.

Maintenance is funded from the operating budget where available which is further discussed in Section 6.2.

5.4 Renewal/Replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original or lesser required service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

5.4.1 Renewal Plan

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average *network renewals* plus *defect repairs* in the *Renewal Plan* and *Defect Repair Plan* worksheets on the 'Expenditure template'.



Method 1 was used for this Asset Management Plan.

The useful lives of assets used to develop projected asset renewal expenditures are shown in the table below. Asset useful lives were last reviewed in 2013.

Useful Lives of Assets

Asset (Sub)Category	Useful Life
Historic buildings	100 years
Civic and other masonry buildings	80 years
Storage or metal clad buildings	40 years
Transportable buildings	20 years

5.4.2 Renewal and Replacement Strategies

The organisation will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner
 - Undertaking project scoping for all capital renewal and replacement projects to identify:
 - the service delivery deficiency, present risk and optimum time for renewal/replacement
 - the project objectives to rectify the deficiency
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency
 - and evaluate the options against evaluation criteria adopted by Council, and
 - select the best option to be included in capital renewal programs
- Using low cost renewal methods (cost of renewal is less than replacement) wherever possible
- Maintain a current Infrastructure Risk Register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used

Renewal Ranking Criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (eg. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (eg. roughness of a road).⁹

⁹ IPWEA, 2011, IIMM, Sec 3.4.4, p 3|60.



It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure
- Have a high utilisation and subsequent impact on users would be greatest
- The total value represents the greatest net value to the organisation
- Have the highest average age relative to their expected lives
- Are identified in the AM Plan as key cost factors
- Have high operational or maintenance costs and
- Where replacement with modern equivalent assets would yield material savings.¹⁰

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in the table below.

Renewal and Replacement Priority Ranking Criteria

Criteria	Weighting
Fit for purpose	25%
Safety	50%
Maintenance requirements	15%
Community expectation	10%
Total	100%

Renewal and Replacement Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- Building Code of Australia
- Disability Standards

5.4.3 Summary of Future Renewal and Replacement Expenditure

Projected future renewal and replacement expenditures are forecast to increase over time as the asset stock increases from growth. The expenditure is summarised in the figure below (Note that all amounts are shown in real values).

The projected capital renewal and replacement program is shown in Appendix B.

¹⁰ Based on IPWEA, 2011, IIMM, Sec 3.4.5, p 3 66.



Projected Capital Renewal and Replacement Expenditure

Armidale Dumaresq - Projected Capital Renewal Expenditure (Buildings_S1_V1)



Deferred renewal and replacement, ie. those assets identified for renewal and/or replacement and not scheduled in capital works programs are to be included in the risk analysis process in the Risk Management Plan.

Renewals and replacement expenditure in Council's capital works program will be accommodated in the Long Term Financial Plan which is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to Council from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as Councillor or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programs. The priority ranking criteria is detailed below:



New Assets Priority Ranking Criteria

Criteria	Weighting
Regulatory/Legislative requirement	30%
Compliance with Community Strategic Plan	30%
Council resolution	20%
Other Council Plans linked to Strategic Plan	20%
Total	100%

5.5.2 Capital Investment Strategies

The organisation will plan capital upgrade and new projects to meet level of service objectives by:

- Planning and scheduling capital upgrade and new projects to deliver the defined level of service in the most efficient manner
- Undertake project scoping for all capital upgrade/new projects to identify:
 - the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset
 - the project objectives to rectify the deficiency including value management for major projects
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency
 - management of risks associated with alternative options
 - evaluate the options against evaluation criteria adopted by Council, and
 - select the best option to be included in capital upgrade/new programs
- Review current and required skills base and implement training and development to meet required construction and project management needs
- Review management of capital project management activities to ensure Council is obtaining best value for resources used

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.

5.5.3 Summary of Future Upgrade/New Assets Expenditure

Projected upgrade/new asset expenditures are summarized in the long term financial plan. The projected upgrade/new capital works program is shown in Appendix C (all amounts are shown in real values).



	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Operations & Maintenance	1050	1081	1113	1147	1182	1217	1254	1291	1330	1370
Renewals	346	276	344	263	345	244	163	475	153	285
Upgrades	25	78	82	193	3070	134	277	0	0	150

Projected Capital Upgrade/New Asset Expenditure

Expenditure on new assets and services in Council's capital works program will be accommodated in the Long Term Financial Plan which is further discussed in Section 6.2.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6, together with estimated annual savings from not having to fund operations and maintenance of the assets. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Any revenue gained from asset disposals is accommodated in Council's Long Term Financial Plan.

Where cashflow projections from asset disposals are not available, these will be developed in future revisions of this Asset Management Plan.

Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Expenditure	Operations & Maintenance Annual Savings
Nil identified				

6 Plan Improvement and Monitoring

6.1 Status of Asset Management Practices

6.1.1 Accounting and Financial Systems

Council uses the Technology One Suite of applications for its financial and asset accounting systems. The three (3) major applications are:

- Finance 1 running a General Ledger, Project Ledger, Fleet Ledger and Work Order Ledger
- Works and Assets managing the project and work order interface to the asset database
- Matman providing detailed work order and performance data



Accountabilities for Financial Systems

The Chief Financial and Information Officer is responsible for all financial systems within the organization and has a team of staff to assist in the process which is also subject to internal and external audit.

Accounting Standards and Regulations

All financial data is prepared and maintained in accordance with:

- The Local Government Act (as amended) and the regulations thereunder
- The Local Government Code of Accounting Practice and Financial Reporting
- The Australian Accounting Standards and professional pronouncements

Capital/Maintenance Threshold

Council's capital threshold is \$5,000. Costs under this will not be capitalised unless they are part of a project which has expenditure exceeding the \$5,000 figure.

6.2.1 Asset Management System

The asset management system is a basic spreadsheet. However, Council is in the process of setting up data in an "Enterprise Asset Management" system.

Asset Registers

Spreadsheet for recreation assets.

Linkage from Asset Management to Financial System

Linked through work order systems.

Accountabilities for Asset Management System and Data Maintenance

Section Managers



6.2 Improvement Program

The Asset Management Improvement Plan generated from this Asset Management Plan is shown in the table below.

Task No	Task	Responsibility	Resources Required	Timeline
1	Improve risk strategies	Manager	Within current	12 months
			budgets	
2	Improve asset data construction/acquisition dates	Manager	Within current	12 months
			budgets	
3	Improve valuation methods	Manager	Within current	18 months
			budgets	
4	Improve works programs	Manager	Within current	18 months
			budgets	
5	Improve condition assessment methods	Manager	Within current	18 months
			budgets	

Improvement Plan

6.3 Monitoring and Review Procedures

This Asset Management Plan will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

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 Council's Long Term Financial Plan.

The AM Plan has a life of four (4) years (Council election cycle) and is due for complete revision and updating within 12 months of each Council election.

6.4 **Performance Measures**

The effectiveness of the Asset Management Plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this Asset Management Plan are incorporated into the organisation's Long Term Financial Plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the Asset Management Plan
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the organisation's Strategic Plan and associated plans
- The Asset Renewal Funding Ratio achieving the target of 1.0.



7 Financial Summary

This section contains the financial requirements resulting from all the information presented in the previous sections of this Asset Management Plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

7.1 Financial Statements and Projections

The financial projections are shown in the figure below for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.











7.1.1 Sustainability of Service Delivery

There are four key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the asset renewal funding ratio, long term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹¹ should be between 80% and 100%

The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years, the organisation is forecasting that it will have 40% of the funds required for the optimal renewal and replacement of its assets.

Long Term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this Asset Management Plan is \$1,498,000 per year (average operations and maintenance expenditure plus depreciation expense projected over 10 years).

Life cycle costs can be compared to life cycle expenditure to give an initial indicator of affordability of projected service levels when considered with age profiles. Life cycle expenditure includes operations, maintenance and capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure over the 10 year planning period is \$1,529,000 per year (average operations and maintenance plus capital renewal budgeted expenditure in LTFP over 10 years).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap. The life cycle gap for services covered by this Asset Management Plan is between \$372,000 long-term per year. Life cycle expenditure is 75% of long term life cycle costs.

The life cycle costs and life cycle expenditure comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist Council in providing services to the community in a financially sustainable manner. This is the purpose of the Asset Management Plan and Long Term Financial Plan.

Medium Term - 5-10 Year Financial Planning Period

This Asset Management Plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

These projected expenditures may be compared to budgeted expenditures in the 10 year period to identify any funding shortfall. In a core Asset Management Plan, a gap is generally due to increasing asset renewals for ageing assets.

¹¹ AIFMG, 2009, Financial Sustainability Indicator 8, Sec 2.6, p 2.18


The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is \$1,529,000, on average, per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$1,126,000, on average, per year giving a 10 year funding shortfall of \$403,000 per year. This indicates that Council expects to have 74% of the projected expenditures needed to provide the services documented in the Asset Management Plan.

Asset Management Financial Indicators

The figure below shows the asset management financial indicators over the 10 year planning period and for the long term life cycle.

Asset Management Financial Indicators



Armidale Dumaresq - AM Financial Indicators (Buildings_S1_V1)

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the Asset Management Plan and ideally over the 10 year life of the Long Term Financial Plan.



BUILDINGS AND PROPERTY		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	226	143	214	42	134	197	18	475	92	205	1,746
Total Program Summary in	Upgrades =	25	78	70	193	3,070	134	277	0	0	150	3,997
φ 000	Annual Total =	251	221	284	235	3,204	331	295	475	92	355	5,743
Renewals		226,000	143,000	214,000	42,000	134,000	197,000	18,000	475,000	92,000	205,000	1,746,000
New Works & Upgrades		25,000	78,000	70,000	193,000	3,070,000	134,000	277,000	-	-	150,000	3,997,000
TOTAL RENEWALS, NEW WORKS & UPGRADES		251,000	221,000	284,000	235,000	3,204,000	331,000	295,000	475,000	92,000	355,000	5,743,000

Summary of Projected 10 Year Renewal and Upgrading Works without SRV

Buildings and Property Asset Management Plan 2014 - 2024



BUILDINGS AND PROPERTY		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	346	276	344	263	345	244	163	475	153	285	2,894
Total Program Summary in \$'000	Upgrades =	25	78	82	193	3,070	134	277	0	0	150	4,009
	Annual Total =	371	354	426	456	3,415	378	440	475	153	435	6,903
Renewals		346,000	276,000	344,000	263,000	345,000	244,000	163,000	475,000	153,035	285,000	2,894,035
New Works & Upgrades		25,000	78,000	82,000	193,000	3,070,000	134,000	277,000	-	-	150,000	4,009,000
												-
TOTAL RENEWALS, NEW WORKS & UPGRADES		371,000	354,000	426,000	456,000	3,415,000	378,000	440,000	475,000	153,035	435,000	6,903,035

Summary of Projected 10 Year Renewal and Upgrading Works with SRV of 10%

Buildings and Property Asset Management Plan 2014 - 2024



Providing services in a sustainable manner will require matching of projected asset renewal and replacement expenditure to meet agreed service levels with the corresponding capital works program accommodated in the Long Term Financial Plan.

There remains a significant gap between projected asset renewal/replacement expenditure and amounts accommodated in the Long Term Financial Plan indicates that further work is required on reviewing service levels in the AM Plan (including possibly revising the Long Term Financial Plan) before finalising the Asset Management Plan to manage required service levels and funding to eliminate any funding gap.

We will manage the gap by developing this Asset Management Plan to provide guidance on future service levels and resources required to provide these services and review future services, service levels and costs with the community.

7.1.2 Projected Expenditures for Long Term Financial Plan

Projected expenditures for the 10 Year Long Term Financial Plan.

Expenditure projections are in 2014 current dollar values.

Scenario: Special Rate Variation 10%	2013 /14	2014 /15	2015 /16	2016/ 17	2017/18	2018/19	2019/ 20	2020/ 21	2021/ 22	2022/ 23	2023/ 24
Expenditure	('000	('000	('000								
Capital Expenditure)))	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)
Buildings	126	150	310	426	398	16,385	378	440	950	-	435



7.2 Funding Strategy

After reviewing service levels as appropriate to ensure ongoing financial sustainability, projected expenditures identified in Section 6.1.2 will be accommodated in the organisation's 10 year Long Term Financial Plan.

7.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to the Council. Figure 9 shows the projected replacement cost asset values over the planning period.

Expenditure projections are in 2014 current dollar values.

Projected Asset Values



Armidale Dumaresq - Projected Asset Values (Buildings_S3_V1)

Depreciation expense values are forecast in line with asset values as shown in the figure below.



Projected Depreciation Expense



Armidale Dumaresq - Projected Depreciation Expense (Buildings_S3_V1)

The depreciated replacement cost will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Forecast of the assets' depreciated replacement cost is shown in the figure below. The depreciated replacement cost of contributed and new assets is shown in the darker colour and in the lighter colour for existing assets.



Projected Depreciated Replacement Cost

Armidale Dumaresq - Projected Depreciated Replacement Cost (Recreation_S3_V1)



7.4 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan and risks that these may change are shown in the table below.

Key Assumptions made in AM Plan and Risks of Change

Key Assumptions	Risks of Change to Assumptions
That the plan has been formulated on the best available	That the total amounts for assets will change and the
information at the time.	expenditure required will change
Replacement costs from varied sources	Review replacement costs assumptions

7.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale¹² in accordance with the table shown below.

¹² IPWEA, 2011, IIMM, Table 2.4.6, p 2 | 59.



Data Confidence Grading System

Confidence Grade	Description
A Highly Reliable	Data based on sound records, procedures, investigations and analysis, documented properly and recognised
	as the best method of assessment. Dataset is complete and estimated to be accurate \pm 2%
B Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor
	shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed
	on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported,
	or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially
	complete but up to 50% is extrapolated data and accuracy estimated \pm 25%
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be
	fully complete and most data is estimated or extrapolated. Accuracy \pm 40%
E Unknown	None or very little data held

The estimated confidence level for and reliability of data used in this AM Plan is shown in the table below.

Data	Confidence Assessment	Comment
Demand drivers	С	Known Demand drivers are based on Community makeup.
		Others to be ascertained through future community
		consultation
Growth projections	A	Derived from Census data
Operations expenditures	A	Based upon actuals
Maintenance expenditures	A	Based upon actuals
Projected renewal exps.	С	Based upon today's dollars only
 Asset values 		
- Asset residual values	С	Based upon best guess acquisition dates
- Asset useful lives	С	Based upon a number of sources. However, some based on
		industry experience
- Condition modelling	С	No formal condition assessment model adopted
- Network renewals	С	Based upon industry experience
- Defect repairs	В	Based upon Inspection reports
Upgrade/new expenditures	В	Sourced from other adopted plans
Disposal expenditures	N/A	None identified

Data Confidence Assessment for Data used in AM Plan

Over all data sources, the data confidence is assessed as medium confidence level for data used in the preparation of this AM Plan.



8 References

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/IIMM</u>
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/namsplus</u>.
- IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/AIFMG</u>.
- IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/IIMM</u>
- Organisation, 'Community Strategic Plan 2013-2028
- Organisation, 'Operational Plan and Budget'



9 Appendices

Annendix A	Projected 10 Year Renewal and Upgrading Works Program
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Appendix B Abbreviations

Appendix C Glossary

7



Appendix A Projected 10 Year Renewal and Upgrading Works Program

Summary of Projected 10 Year Renewal and Upgrading Works without SRV

BUILDINGS AND PROPERTY		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	226	143	214	42	134	197	18	475	92	205	1,746
Total Program Summary in \$'000	Upgrades =	25	78	70	193	3,070	134	277	0	0	150	3,997
	Annual Total =	251	221	284	235	3,204	331	295	475	92	355	5,743
Renewals		226,000	143,000	214,000	42,000	134,000	197,000	18,000	475,000	92,000	205,000	1,746,000
												-
New Works & Upgrades		25,000	78,000	70,000	193,000	3,070,000	134,000	277,000	-	-	150,000	3,997,000
												
TOTAL RENEWALS, NEW WORKS & UPGRADES	-	251,000	221,000	284,000	235,000	3,204,000	331,000	295,000	475,000	92,000	355,000	5,743,000



BUILDINGS AND PROPERTY		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Total Program Summary in \$'000	Renewals =	346	276	344	263	345	244	163	475	153	285	2,894
	Upgrades =	25	78	82	193	3,070	134	277	0	0	150	4,009
	Annual Total =	371	354	426	456	3,415	378	440	475	153	435	6,903
Renewals		346,000	276,000	344,000	263,000	345,000	244,000	163,000	475,000	153,035	285,000	2,894,035
New Works & Upgrades		25,000	78,000	82,000	193,000	3,070,000	134,000	277,000	-	-	150,000	4,009,000
												-
TOTAL RENEWALS, NEW WORKS & UPGRADES		371,000	354,000	426,000	456,000	3,415,000	378,000	440,000	475,000	153,035	435,000	6,903,035

Summary of Projected 10 Year Renewal and Upgrading Works with SRV of 10%





Appendix B Abbreviations

AAAC	Average annual asset consumption
AM	Asset management
AM Plan	Asset management plan
ARI	Average recurrence interval
ASC	Annual service cost
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
DRC	Depreciated replacement cost
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life cycle cost
LCE	Life cycle expenditure
LTFP	Long term financial plan
ммѕ	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SoA	State of the assets
SS	Suspended solids
vph	Vehicles per hour
WDCRD	Written down current replacement cost



Appendix C Glossary

Annual service cost (ASC)

- Reporting actual cost The annual (accrual) cost of providing a service including operations, maintenance, depreciation, finance/opportunity and disposal costs less revenue.
- 2 For investment analysis and budgeting An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operations, maintenance, depreciation, and finance / opportunity and disposal costs, less revenue.

Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

Asset management (AM)

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Asset renewal funding ratio

The ratio of the net present value of asset renewal funding accommodated over a 10 year period in a long term financial plan relative to the net present value of projected capital renewal expenditures identified in an Asset Management Plan for the same period [AIFMG Financial Sustainability Indicator No 8].

Average annual asset consumption (AAAC)*

The amount of an organisation's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life (or total future economic benefits/service potential) and totalled for each and every asset OR by dividing the carrying amount (depreciated replacement cost) by the remaining useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

Borrowings

A borrowing or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.



Capital expenditure - expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future operations and maintenance costs, because it increases the organisation's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure - new

Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

Capital expenditure - renewal

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or subcomponents of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Capital expenditure - upgrade

Expenditure which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the Council's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition.

Capitalisation threshold

The value of expenditure on non-current assets above which the expenditure is recognised as capital expenditure and below which the expenditure is charged as an expense in the year of acquisition.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition.

Component

Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

Core asset management

Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision- making).



Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes one-off design and project management costs.

Critical assets

Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than noncritical assets.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Deferred maintenance

The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value.

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital outlays.

Fair value

The amount for which an asset could be exchanged or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Financing gap

A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets that contribute to meeting the needs of organisations or the need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from



the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no separate market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business.

Key performance indicator

A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

Level 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.

Life cycle cost*

- 1 **Total LCC** The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
- 2 Average LCC The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises average operations, maintenance expenditure plus asset consumption expense, represented by depreciation expense projected over 10 years. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life cycle expenditure

The Life Cycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long term financial plan over 10 years. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.

Loans / borrowings

See borrowings.

Maintenance

All actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating, eg road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

• Planned maintenance

Repair work that is identified and managed through a maintenance management system (MMS). MMS 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.

Reactive maintenance

Unplanned repair work that is carried out in response to service requests and management/ supervisory directions.

• Specific maintenance

Maintenance work to repair components or replace sub-components that needs to be identified as a specific maintenance item in the maintenance budget.

• 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 to maintain its level of security and integrity.



Maintenance expenditure*

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

The notion of materiality guides the margin of error acceptable, the degree of precision required and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

Modern equivalent asset

Assets that replicate what is in existence with the most cost-effective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques

Net present value (NPV)

The value to the organisation of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows after deducting the value of the discounted total cash outflows arising from eg the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operations

Regular activities to provide services such as public health, safety and amenity, eg street sweeping, grass mowing and street lighting.

Operating expenditure

Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, eg power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is on the other hand included in operating expenses.

Operating expense

The gross outflow of economic benefits, being cash and non cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

Operating expenses

Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

Operations, maintenance and renewal financing ratio

Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Operations, maintenance and renewal gap

Difference between budgeted expenditures in a long term financial plan (or estimated future budgets in absence of a long term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).

Pavement management system (PMS)

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.



PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

The ratio of annual asset consumption relative to the depreciable amount of the assets. It measures the amount of the consumable parts of assets that are consumed in a period (depreciation) expressed as a percentage of the depreciable amount.

Rate of annual asset renewal*

The ratio of asset renewal and replacement expenditure relative to depreciable amount for a period. It measures whether assets are being replaced at the rate they are wearing out with capital renewal expenditure expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade/new*

A measure of the rate at which assets are being upgraded and expanded per annum with capital upgrade/new expenditure expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operations and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining useful life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining useful life is useful life.

Renewal

See capital renewal expenditure definition above.

Residual value

The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg. public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/public sector to value assets, particularly those not producing a cash flow.

Service potential remaining

A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits. It is also a measure of the percentage of the asset's potential to provide services that are still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).



Specific maintenance

Replacement of higher value components/subcomponents of assets that is undertaken on a regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Strategic longer term plan

A plan covering the term of office of Councillors (4 years minimum) reflecting the needs of the community for the foreseeable future. It brings together the detailed requirements in the Council's longer-term plans such as the Asset Management Plan and the long-term financial plan. The plan is prepared in consultation with the community and details where the Council is at that point in time, where it wants to go, how it is going to get there, mechanisms for monitoring the achievement of the outcomes and how the plan will be resourced.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.

Value in use

The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits. Source: IPWEA, 2009, Glossary

Additional and modified glossary items shown*



Recreation and Open Space Asset Management Plan 2014 to 2024



armidale.nsw.gov.au



Applies to:	
Officer Responsible:	
Associated Documents:	Any listed below
Legislation:	Any listed below
History:	Version 1 - 14 June 2012 - Original Version 2 - 29 June 2012 - Revised expenditure data and residuals Version 3 - February 2014
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1 Executive Summary

Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of the organisation's vision, mission, goals and objectives.

Our vision is:

Excellent Lifestyle - Sustainable Growth

Our mission is:

To provide Community leadership and Local Government Services in a sustainable and effective manner and To enhance our areas social, economic and environmental values

Context

Armidale Dumaresq Council provides a recreation and open space network in partnership with sporting groups and volunteers to provide clean, safe and attractive recreation spaces for both residents and visitors.

Services that are supplied are linked through maintenance programmes and budget. Park furniture, signage and floodlighting are the areas of perceived deficiencies and are being addressed.

The Civic and Recreation Service section of Armidale Dumaresq Council manages and maintains the parks and playing fields and other assets for the community of Armidale.

The Recreation Network Comprises:

- Active Parks
- Passive Parks
- Malls
- Aquatic Centre

These infrastructure assets have a replacement value of \$17.7 million.

What does it cost?

The projected outlays necessary to provide the services covered by this Asset Management Plan (AM Plan) includes operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is \$2,348,000 on average, per year.

Estimated available funding for this period is \$20,760,000 or \$2,076,000 on average per year which is 88% of the cost to provide the service. This is a funding shortfall of \$272,000, on average, per year. Projected expenditure required to provide services in the AM Plan compared with planned expenditure currently included in the Long Term Financial Plan are shown in the graph below.



What we will do

We plan to provide civic and recreation services for the following:

Operation, maintenance, renewal and upgrade of active parks, passive parks, malls and aquatic centre to meet service levels set in annual budgets.

Major renewal and upgrades include field lighting, seating, facilities at sporting fields within the 10 year planning period.

What we cannot do

We do not have enough funding to provide all services at the desired service levels or provide new services.



Managing the risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

- Customer dissatisfaction
- Damage to Council's image

We will endeavour to manage these risks within available funding by:

- Communications
- Strive to create efficiencies within operations
- Return benefits of efficiencies to the assets
- Confidence levels
- This AM Plan is based on medium level of confidence information
- The actions resulting from this Asset Management Plan are:
 - Improve risk strategies
 - Improve asset data construction/acquisition dates
 - Improve valuation methods
 - Improve works programmes
 - Improve condition assessment methods

Questions you may have

What is this plan about?

This Asset Management Plan covers the infrastructure assets that serve the Armidale Dumaresq Council community's recreation needs. These assets include parks, malls and aquatic centres throughout the local government area that are for the enjoyment of the community.

What is an Asset Management Plan?

Asset Management Planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An Asset Management Plan details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

Why is there a funding shortfall?

Some of Council's recreation network was constructed by developers and from government grants, often provided and accepted without consideration of ongoing operations,

maintenance and replacement needs.

Many of these assets are approaching the later years of their life and require replacement, serviceability of the assets is decreasing and maintenance costs are increasing.

Our present funding levels are insufficient to continue to provide existing services at current levels in the medium term.

What options do we have?

Resolving the funding shortfall involves several steps:

- Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels
- Improving our efficiency in operating, maintaining, renewing and replacing existing assets to optimise life cycle costs
- Identifying and managing risks associated with providing services from infrastructure
- Making trade-offs between service levels and costs to ensure that the community receives the best return from infrastructure
- Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs
- Consulting with the community to ensure that recreation services and costs meet community needs and are affordable
- Developing partnerships with other bodies, where available, to provide services
- Seeking additional funding from governments and other bodies to better reflect a whole of government funding approach to infrastructure services, eg grant funding.

What happens if we don't manage the shortfall?

It is likely that we will have to reduce service levels in some areas, unless new sources of revenue are found. For recreation and open space, the service level reduction may include reduction in mowing and paving repairs.

What can we do?

We can develop options, costs and priorities for future recreation services, consult with the community to plan future services to match the community service needs with ability to pay for services and maximise community benefits against costs.



What are we doing?

In 2014 Council intended to apply to IPART for a 20% special rate variation (SRV), which would have applied over the next seven years, in order to increase its rate income to cover the cost shortfall of renewing critical assets and infrastructure.

An extensive community consultation process was undertaken to address the infrastructure renewal cost to income shortfall.

The proposals promoted to the community contained three scenarios:

Scenario 1: increase rates by the normal rate pegging increase.

Scenario 2: increase rates by a 20% upfront special rate variation for seven years.

2 Introduction

2.1 Background

This Asset Management Plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements and to communicate funding needed to provide the required levels of service over a 20 year planning period.

The Asset Management Plan follows the format for AM Plans recommended in Section 4.2.6 of the International Infrastructure Management Manual.

The Asset Management Plan is to be read with the organisation's Asset Management Policy, Asset Management Strategy and the following associated planning documents:

- Armidale Recreation Plan 2011
- Armidale Sports Council Priority List for renewals and upgrades.

This infrastructure assets covered by this Asset Management Plan are shown in the following table. These assets are used to provide civic and recreation services to its community.

Scenario 3: increase rates by 10% per year for two years.

In February 2014 Council resolved to apply to IPART for a 10% (plus rate peg) special rate variation over seven years. This plan has been adjusted to meet that change.

Currently Council's asset renewal ratio has declined from 73% to 48% over four (4) years. This has developed due to improved asset management data, asset revaluations and increased cost of renewals.

Currently Council is under-funding its asset renewals by \$4,631,000. The SRV is intended to improve this situation, however, Council will also need to review service levels and consolidate replacement strategies to get to a long term sustainable position.



Assets Covered by this Plan

Asset Category	Dimension	Replacement Value
PASSIVE PARKS - open space areas dedicated to passive recreation, ie. parks, reserves and bushland	146ha	\$6.5m
ACTIVE PARKS - open space areas dedicated to active recreation, ie. sports grounds	101ha	\$5.1M
Aquatic Centre	Contains Administrative Building, Grandstand, 1 x 8 lane olympic pool, 1 x 6 lane olympic pool and 2 children's pools and associated operating equipment	\$3.1m (not including pools structures as they are yet to be valued)
Malls	Infrastructure contained in 3 blocks of Beardy Street bounded by Marsh, Faulkner, Dangar and Jessie Streets	\$ 3m
TOTAL		\$17.7m

Key stakeholders in the preparation and implementation of this Asset Management Plan are shown in the following table.

Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan		
Councillors	 Represent needs of community/shareholders Allocate resources to meet the organisation's objectives in providing services while managing risks Ensure organisation is financially sustainable 		
General Manager	Financial and human resourcing		
Community	User safetyCommunity satisfaction		

2.2 Goals and Objectives of Asset Management

Organisation Goals and how these are Addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in AM Plan
To have quality and affordable infrastructure to support economic growth	Council to achieve asset sustainability and be able to accommodate economic growth by 2021	Prepare and implement Asset Management Plans
Community has access to a broad range of natural and constructed recreational facilities	Increased use of shared infrastructure by 2020	Facilities that are multi-use Level of service appropriate to shared facilities usage



Council will exercise its duty of care to ensure public safety in accordance with the Infrastructure Risk Management Plan prepared in conjunction with this AM Plan. Management of infrastructure risks is covered in Section 5.2.

The organisation exists to provide services to its community. Some of these services are provided by infrastructure assets. We have acquired infrastructure assets by purchase, by contract, construction by our staff and/or by donation of assets constructed by developers and others to provide expected levels of service.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time through community consultation) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance;
- Managing the impact of growth through demand management and infrastructure investment;
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service;
- Identifying, assessing and appropriately controlling risks; and
- Having a Long-Term Financial Plan which identifies required, affordable expenditure and how it will be financed.¹

2.3 Plan Framework

Key elements of the plan are:

- Levels of service specifies the services and levels of service to be provided by Council
- Future demand how this will impact on future service delivery and how this is to be met
- Life cycle management how we will manage our existing and future assets to provide defined levels of service
- Financial summary what funds are required to provide the defined services
- Asset management practices
- Monitoring how the plan will be monitored to ensure it is meeting Council's objectives
- Asset management improvement plan

A road map for preparing an Asset Management Plan is shown below.

¹ Based on IPWEA, 2011, IIMM, Sec 1.2 p 1|7.



Road Map for Preparing an Asset Management Plan

Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11.





2.4 Core and Advanced Asset Management

This Asset Management Plan is prepared as a 'core' Asset Management Plan over a 20 year planning period in accordance with the International Infrastructure Management Manual². It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Future revisions of this Asset Management Plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

2.5 Community Consultation

This 'core' Asset Management Plan is prepared to facilitate community consultation initially through feedback on public display of draft Asset Management Plans prior to adoption by the Council. Future revisions of the Asset Management Plan will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and the community in matching the level of service needed by the community, service risks and consequences with the community's ability and willingness to pay for the service.

3 Levels of Service

3.1 Customer Research and Expectations

Council engaged a consultancy firm to undertake a survey of the community to determine satisfaction with the services provided by Council. The survey was undertaken in 2009 and a final report was presented to Council in May 2009. This telephone survey polls a sample of residents on their level of satisfaction with Council's services. The most recent customer satisfaction survey reported satisfaction levels for the following services:

- Parks, playgrounds and open space
- Sporting fields
- Pools

This survey rated satisfaction against importance. Parks, playground and open space received a high satisfaction and high importance. However, sporting fields and pools received a high satisfaction but were considered to be of low importance.

Performance Measure	Satisfaction Level					
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied	
Parks, Playgrounds and Open Space (Passive Parks)		V				
Sporting Fields (Active Parks)		v				
Pools		v				

Community Satisfaction Survey Levels





Council uses this information in developing its Strategic Plan and in allocation of resources in the budget.

In August 2008, Council adopted a Service Levels Plan for the Civic and Recreation Services section of Council that specified particular service levels relating to assets. Although the service levels were only in place for six months prior to the Community Satisfaction Survey being undertaken, the satisfaction levels indicate that the level of service is appropriate. Further, a survey to benchmark community wellbeing (conducted July/August 2011) revealed that only 3% surveyed were dissatisfied with accessibility and appearance of public areas indicating an acceptance of the current service levels.

Over 92% of respondents indicated that they felt they had opportunity to participate in sports and recreational activities indicating that the provision of facilities is adequate.

Council has since adopted a Service Levels Plan (April 2012) that encompasses all services provided to residents. Service levels applicable to recreation and open space are contained within the plan.

3.2 Legislative Requirements

We have to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Legislation	Requirement
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a Long Term Financial Plan supported by Asset Management Plans for sustainable service delivery
Environmental Planning and Assessment Act 1979	Sets out the role and responsibilities of local governments and others for environmental planning and assessment in relation to developments
Australian Standard AS/NZ 4422- 1996	Sets out the role and responsibilities of playground owners, including maintenance and inspection requirements

Legislative Requirements



3.3 Current Levels of Service

We have defined service levels in two terms:

Community Levels of Service - measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the Asset Management Plan are:

- Quality How good is the service?
- Function Does it meet users' needs?
- Capacity/Utilisation Is the service over or under used?

Technical Levels of Service - supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations the regular activities to provide services such as opening hours, cleaning frequency, mowing frequency, etc.
- Maintenance the activities necessary to retain assets as near as practicable to an appropriate service condition (eg. road patching, unsealed road grading, building and structure repairs)
- Renewal the activities that return the service capability of an asset up to that which it had originally (eg. frequency and cost of road resurfacing and pavement reconstruction, pipeline replacement and building component replacement)
- Upgrade the activities to provide a higher level of service (eg. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (eg. a new library).

Asset Managers plan, implement and control technical service levels to influence the customer service levels.³

Our current service levels are detailed in the following table.

Current and Desired Service Levels

Asset: Passive Parks							
Key Performance	Level of Service	Performance Measure	Reduced Level of	Current Level of	Desired Level of		
Measure	Objective	Process	Service Cost	Service Cost	Service Cost		
Community Levels of S	ervice (Passive Parks)						
Outcomes			Effectiveness				
Quality	Parks are clean and tidy	Parks are serviced according to the agreed service levels	Parks are serviced to a lower standard (every 4 weeks) \$380,000 per annum	Parks are serviced to standard (generally 3 weekly) \$456,000 per annum	Parks are serviced weekly \$1,360,000 per annum		
Function	Parks are fit for purpose	Parks are safe without dangerous defects	Some dangerous defects				
Capacity/Utilisation	Parks are suitable for specified number of users	Minimal signs of wear					
Technical Levels of Ser	vice						
Inputs			Service Gap				
Operations	Inspections for	Number of defects	< 20 defects	<10 defects	Nil defects per		
	defects	reported by public per	reported by public	reported by public	year		
	undertaken	year	per year	per year			

³ IPWEA, 2011, IIMM, p 2.22



Maintenance	Parks serviced to	Number of times service	< 20 complaints	<10 complaints	Nil complaints
	prescribed	standard not met	concerning	concerning	concerning
	standard		standard per year	standard per year	standard per year
Renewal	Assets renewed to	< 5 failures per annum	< 10 failures per	< 5 failures per	Nil failures
	extend serviceable	per asset class	annum per asset	asset class per	
	life		class	year	
Upgrades/New	Assets upgraded			\$136,000 per	
	to meet growth			annum	
Accets Active Darks	demand				
Key Performance	Level of Service	Performance Measure	Reduced Level of	Current Level of	Desired Level of
Measure	Objective	Process	Service Cost	Service Cost	Service Cost
Community Levels of 9	Conjective Service (Active Parks)	FIDCESS	Service Cost	Service COSt	Service Cost
Outcomes	Service (Active Faiks)		Effectiveness		
Quality	Smooth level and	Parks are serviced	\$320,000	\$456,000	\$556,000
Quality	well drained	according to the agreed	Users remove	Council supplies	Additional toilet
	Wen dramed	service levels	garbage, no cricket	full garbage	cleaning
			oval mowing on	removal service	0.001.118
			Fridavs. no road	but not for special	
			closures for special	events. A full	
			events.	mow of playing	
				fields is	
				undertaken.	
Function	Fit for purpose	Parks are safe without	Some dangerous		
		dangerous defects	defects		
Capacity/Utilisation	Adequate space				
	for existing users				
Technical Levels of Ser	vice				
Inputs	T		Service Gap	r	T
Operations	Inspections for		< 20 defects	<10 defects	< 5 defects per
	defects		reported by public	reported by public	year
	undertaken		per year	per year	
Maintenance	Parks serviced to		< 20 complaints	<10 complaints	< 5 complaints
	prescribed		concerning	concerning	concerning
	standard		standard per year	standard per year	standard per
Renewal	Assets renowed in	Target renewal	< 10 failures per	< 5 failures per	year Nil failuros
Nellewal	a timely manner	intonyontion loval 4	< 10 failures per	< 5 failures per	Nil Tallules
	a timely manner	Intervention level 4	class	vear	
Lingrades/New				\$24,000	
Asset: Malls and CBD				<i>924,000</i>	
Kev Performance	Level of Service	Performance Measure	Reduced Level of	Current Level of	Desired Level of
Measure	Objective	Process	Service Cost	Service Cost	Service Cost
Community Levels of S	Service (Malls and CBD))			
Outcomes	•	•	Effectiveness		
Quality	Clean and tidy/fit	Number of verified and	Serviced 5 days per	Serviced daily - 6	Serviced twice
	for service	legitimate complaints	week (no weekends	days per week	per day
		-	or public holidays)	\$246,000 per	\$492,000 per
			\$192,000	annum	annum
Fit for purpose	Opportunity for	Reduced number of		Trip hazards fixed	Trip hazards fixed
	injury is minimised	claims for injuries		same day	within 1 hour of
					identification
Canacity/Utilisation				N/A	



Technical Levels of Service						
Inputs			Service Gap			
Operations	Inspections for defects undertaken	Visual inspections daily Monthly asset inspections	< 50 claims per annum	<30 claims per annum	<10 claims per annum	
Maintenance	Aquatic centre serviced to prescribed standard	Repairs undertaken on same day of notification or item taken out of service	< 20 complaints concerning standard per year	<10 complaints concerning standard per year	< 5 complaints concerning standard per year	
Renewal	Regular renewal of fittings such as seats or vandalised items	Fittings and furniture intervention level 4	< 10 failures per annum per asset class	< 5 failures per asset class per year	Nil failures	
Upgrades/New	Additional items to meet demands of public (will not increase capacity)					
Asset: Aquatic Centre						
Key Performance Measure	Level of Service Objective	Performance Measure Process	Reduced Level of Service Cost	Current Level of Service Cost	Desired Level of Service Cost	
Community Levels of S	Service (Aquatic Cen	tre)				
Outcomes		,	Effectiveness			
Quality	Pools are clean and tidy/fit for service. Water quality meets health standards.	Verified by water testing	(no weekends or public holidays) Water quality checks 1 per day. \$192,000	Serviced daily 7 days per week during season. Water quality checks 3 times per day \$355,000 per annum	Serviced hourly up to 10 times per day \$492,000 per annum	
Function	Pools are fit for purpose	Reduced number of claims for injuries	Hazards and faults completed within a week of identification	Trip hazards and faults fixed same day	Trip hazards fixed within 1 hour of identification	
Capacity/Utilisation	Users are not unduly restricted by Council operations	Number of legitimate complaints		N/A		
Technical Levels of Ser	vice					
Inputs			Service Gap			
Operations	Inspections for defects undertaken	Visual Inspections daily Monthly asset inspections	< 10 claims per annum	<2 claims per annum	<0 claims per annum	
Maintenance	Serviced to prescribed standard	Repairs undertaken on same day of notification or item taken out of service	< 20 complaints concerning standard per year	<10 complaints concerning standard per year	< 5 complaints concerning standard per year	
Renewal	Regular renewal of fittings such as seats or vandalised items	Fittings and furniture intervention level 4	< 10 failures per annum per asset class	< 5 failures per asset class per year	Nil failures	
Upgrades/New	Additional items to meet demands of public (will not increase capacity)			\$12,000		


Detailed information concerning the levels of service may be found within the service levels plan for Armidale (as adopted in April 2012) which is available on the Council website.

3.4 Desired Levels of Service

Indications of desired levels of service are obtained from community consultation/engagement. The Asset Management Planning process includes the development of three (3) scenarios to develop levels of service that are financially sustainable.

4 Future Demand

4.1 Demand Drivers

Drivers affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecast

The present position and projections for demand drivers that may impact future service delivery and utilisation of assets were identified and are documented in the following table.

4.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and utilisation of assets are shown in the following table.

Demand Drivers	Present Position	Projection	Impact on Services
Population growth estimated to be 1% per annum	26,050 people	28,650 people in 10 years	Overall increase in services
Demographics	Ageing Population -most in 45 to 65 age bracket	In 10 years, 23% of population will be over 60	Increased demand for aged services. Less demand for active parks More demand for recreational facilities that cater for individual pursuits.
Extension of seasons, Request for more facilities	Many people unable to participate in sport at normal times	Move towards flexible provision of activities	Requirements for more field lighting.

Demand Drivers, Projections and Impact on Services

4.4 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include non-asset solutions, insuring against risks and managing failures.

Non-asset solutions focus on providing the required service without the need for the organisation to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets to deteriorate beyond current service levels) or educating customers to accept appropriate asset failures⁴.

⁴ IPWEA, 2011, IIMM, Table 3.4.1, p 3|58.



Examples of non-asset solutions include providing services from existing infrastructure such as aquatic centres and libraries that may be in another community area or public toilets provided in commercial premises.

Opportunities identified to date for demand management are shown in the following table. Further opportunities will be developed in future revisions of this Asset Management Plan.

Demand Management Plan Summary

Demand Driver	Impact on Services	Demand Management Plan
Requests for additional facilities	Lowering of service levels as available funds are spread across too many facilities	Encourage sharing of facilities Adjust opening hours of existing facilities Increase pricing Only fund upgrades where there is multiple use
Requests for more lighting	More assets to maintain and operate	Encourage shared use Provide broader band of user timeslots

It is expected that each new proposal would be assessed for need through compliance with Council's Community Strategic Plan. However, demand will also be managed through co-operative agreements for the sharing of infrastructure assets.

The Recreation Plan for Armidale adopted in July 2012 recognises the need to cater for elderly residents and the sharing of infrastructure to achieve quality recreation.

4.5 Asset Programs to meet Demand

The new assets required to meet growth will be acquired free of cost from land developments and constructed/acquired by Council. New assets constructed/acquired by Council are discussed in Section 5.5. The cumulative value of new contributed and constructed asset values are summarised in the following figure.

Upgrade and New Assets to meet Demand







Acquiring these new assets will commit Council to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs in Section 5.

5 Lifecycle Management Plan

The lifecycle management plan details how Council plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while optimising life cycle costs.

5.1 Background Data

5.1.1 Physical Parameters

The assets covered by this Asset Management Plan are shown in the table on page 7 of this document and following.

The age profile of the assets include in this AM Plan is shown in the following figure.

Asset Age Profile

\$4,500 \$4,000 \$3,500 \$3,000 (CRC \$,000) \$2,500 \$2,000 \$1,500 \$1,000 \$500 \$0 2001 2002 2003 2005 2005 2005 2005 2006 5003 010 886 992 967 972 974 277 982 984 985 987 99 994 966 866 666 000 012 99 962 997 Year Acquired

Armidale Dumaresq - Age Profile (Recreation_S1_V1)



Assets

Recreation Land (Parks & Open Space) Passive Recreation	See Appendix F
Recreation Land (Sports Grounds) Active	See Appendix F
Recreation	
Playgrounds	See Appendix F
Barbeques	See Appendix F
Skate Parks	1
Baseball/Softball Facilities	2
Sportsground Floodlighting	See Appendix F
Sportsground Fencing	11,244 lineal metres
Cricket Wickets & Practice Nets	See Appendix F
Netball Courts	10 hard courts and 4 grass courts
Tennis Courts	11 (10 leased to clubs one not operational)
Park Furniture & Signage	Various – see inventory list
Park Fencing	7,623 lineal metres
Irrigation Systems	See Appendix F

5.1.2 Asset Capacity and Performance

Council's services are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in the following table.

Location	Service Deficiency
Sports Field Floodlighting	The majority of floodlighting assets, in particular the luminaires, are reaching the end of their economic life. Existing sports field floodlighting rarely complies with Australian Standards for training level illumination. Further, funding has been historically insufficient to meet maintenance needs and is not sufficient to cover replacement of redundant assets. In recent times, this deficiency has been recognised and a cost structure has been developed to reflect replacement costs.
Sports Ground Fencing	Fencing in the parks system has generally been well maintained with the majority being in the "new" to "good" to "fair' category with just 3% in the failed category. Given these figures, it is not considered that there is a major service deficiency in this area.
Signage	Signage throughout parks and sportsgrounds does not meet Best Practice guidelines for remote supervision as determined by State Wide Mutual. Deficiencies include lack of a signage audit, hierarchy of locations and style continuity.

Known Service Performance Deficiencies



Location	Service Deficiency
Park Furniture (including barbeques)	There is a general lack of seating and shelter at the city's principal parks and sportsgrounds. Damaged seating that has been removed has not been replaced for some years or not replaced at all. Attempts have been made in the past to have some continuity through paint schemes, however, styles will vary depending on the nature of the park. Paint schemes will continue to provide some standard. Barbeque facilities are mostly new having been installed within the past 10 years. There are, however, some wood fired barbeques still in existence at remote locations that will eventually be phased out over the years in an attempt to preserve vegetation.
Playgrounds	The current provision of playgrounds within the LGA is estimated at one per 774 residents. There is a general trend to install new playgrounds only in those areas that are too distant from existing installations. A playground strategy is underway and will be incorporated into future versions of this plan.

The above service deficiencies were identified from various sources including inspections, forums and other community feedback.

5.1.3 Asset Condition

Condition is monitored through visual inspections during servicing and more detailed inspections such as quarterly playground safety inspections.

The condition profile of our assets is shown in the following figure.



Asset Condition Profile



Armidale Dumaresq - Condition Profile Weightings (Recreation_S1_V1)

Condition is measured using a 1 - 5 grading system⁵ as detailed in the following table.

Simple Condition Grading Model

Condition Grading	Description of Condition
1	Very Good: only planned maintenance required
2	Good: minor maintenance required plus planned maintenance
3	Fair: significant maintenance required
4	Poor: significant renewal/rehabilitation required
5	Very Poor: physically unsound and/or beyond rehabilitation



5.1.4 Asset Valuations

Assets were last valued in 2013 and recorded in the Asset Register in 2013 as shown below. Assets are valued at the current replacement cost at that time.

Current Replacement Cost	\$17,736,000					
Depreciable Amount	\$3,909,000	•	Current Replacement Cost Accumulated Depreciation Depreciated Depreciated Depreciated	•		
Depreciated Replacement Cost ⁶	\$13,827,000			Depreciable Amount		
Annual Depreciation Expense	\$515,000		Cost	Ī	Expense	•
		¥	End of reporting period 1	I	End of reporting period 2	Residual Value
					- 1	

Useful lives were reviewed in June 2012 by variety of methods such as condition, evaluations of other council useful lives and manual inspection.

Useful Life

Key assumptions made in preparing the valuations were:

- What it would cost to replace at today's dollars
- Actual construction costs on recent acquisitions
- Actual purchase and installation costs of recent assets

Major changes from previous valuations are due to the use of current replacement costs being used rather than depreciation based on remaining life.

Various ratios of asset consumption and expenditure have been prepared to help guide and gauge asset management performance and trends over time.

Rate of Annual Asset Consumption (Depreciation/Depreciable Amount)	13.2%
Rate of Annual Asset Renewal (Capital Renewal exp/Depreciable Amount)	0%
Rate of Annual Asset Upgrade/New (Capital Upgrade exp/Depreciable Amount)	0.5%
Rate of Annual Asset Upgrade/New (Including Contributed Assets)	0.5%

In 2012 Council plans to renew assets at 0% of the rate they are being consumed and will be increasing its asset stock by 0.5% in the year.

5.1.5 Historical Data

Council holds historical data on financial expenditure in its finance system.

⁶ Also reported as Written Down Current Replacement Cost (WDCRC). Recreation and Open Space Asset Management Plan 2014 - 2024



5.2 Infrastructure Risk Management Plan

An assessment of risks⁷ associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial shock' to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' - requiring prioritised corrective action identified in the Infrastructure Risk Management Plan, together with the estimated residual risk after the selected treatment plan is operational are summarised in the following table. These risks are reported to management and Council.

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Mall	Fire at adjacent buildings disruption to use of Mall	Ξ	Train Mall operators to respond \$1,000 Provide additional fire protection \$50,000 Provide alternative space for continuity of operations	Medium	\$51,000

Critical Risks and Treatment Plans

Note* The residual risk is the risk remaining after the selected risk treatment plan is operational.

5.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, eg. street sweeping, grass mowing and street lighting.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

5.3.1 Operations and Maintenance Plan

Operations activities affect service levels including quality and function through street sweeping and grass mowing frequency, intensity and spacing of street lights and cleaning frequency and opening hours of building and other facilities.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating, eg. road patching but excluding rehabilitation or renewal. Maintenance may be classified into reactive, planned and specific maintenance work activities.

Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned maintenance is repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Specific maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacing air conditioning units, etc. This work falls below the capital/maintenance threshold but may require a specific budget allocation.

⁷ Infrastructure risk management plan is yet to be formulated Recreation and Open Space Asset Management Plan 2014 - 2024



Actual past maintenance expenditure is shown in in the following table.

Maintenance expenditure levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance expenditure levels are such that will result in a lesser level of service, the service consequences and service risks have been identified and service consequences highlighted in this AM Plan and service risks considered in the Infrastructure Risk Management Plan.

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement.

5.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner
- Undertaking maintenance activities through a planned maintenance system to reduce maintenance costs and improve maintenance outcomes. Undertake cost-benefit analysis to determine the most cost-effective split between planned and unplanned maintenance activities (50 70% planned desirable as measured by cost)
- Maintain a current infrastructure risk register for assets and present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs
- Review asset utilisation to identify under-utilised assets and over-utilised assets and the appropriate remedies and customer demand management options
- Maintain a current hierarchy of critical assets and required operations and maintenance activities
- Develop and regularly review appropriate emergency response capability
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used.

Asset Hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The organisation's service hierarchy is shown in the following table.



Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Active Parks A B C D	To provide quality open space active recreation areas to meet the needs and expectations of the community in a cost effective and efficient manner
Passive Parks A B C D	To provide quality open space passive recreation areas to meet the needs and expectations of the community in a cost effective and efficient manner
Malls	To provide a safe, clean and enjoyable environment for pedestrians, community groups and the general public through the provision of malls, street furniture, public toilets and litter bins
Aquatic Centre	To provide a healthy and safe environment for general swimming, swim training, competition and carnivals

Critical Assets

Critical assets are those assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, Council can target and refines investigative activities, maintenance plans and capital expenditure plans at the appropriate time.

Operations and maintenances activities may be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc. Critical assets failure modes and required operations and maintenance activities are detailed in the following table.

Critical Assets and Service Level Objectives

Critical Assets	Critical Failure Mode	Operations & Maintenance Activities
Aquatic Centre	Flooding	Closure of pool will ensure there is no risk to the public from floodwaters

Standards and Specifications

Maintenance work is carried out in accordance with the following Standards and Specifications:

• AS/NZS4486.1:1997

Playgrounds and playground equipment - development, installation, inspection, maintenance and operation

5.3.3 Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in the following figure. Note that all costs are shown in current 2012 dollar values (ie. real values).





Projected Operations and Maintenance Expenditure



Deferred maintenance, ie. works that are identified for maintenance and unable to be funded are to be included in the risk assessment and analysis in the Infrastructure Risk Management Plan.

Maintenance is funded from the operating budget where available which is further discussed in Section 6.2.

5.4 Renewal/Replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original or lesser required service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.



5.4.1 Renewal Plan

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average *network renewals* plus *defect repairs* in the *Renewal Plan* and *Defect Repair Plan* worksheets on the 'Expenditure Template'.

Method 1 was used for this Asset Management Plan.

The useful lives of assets used to develop projected asset renewal expenditures are shown in the following table. Asset useful lives were last reviewed on 14 June 2012.⁸

Asset (Sub)Category	Useful life
Play Equipment	15 to 30 years
Barbeques	20 years
Cricket Facilities	20 years
Buildings	80 years
Monuments	100 years
Tables/Seats	20 years
CBD Infrastructure	20 years

Useful Lives of Assets

5.4.2 Renewal and Replacement Strategies

The organisation will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner,
- Undertaking project scoping for all capital renewal and replacement projects to identify:
 - the service delivery 'deficiency', present risk and optimum time for renewal/replacement,
 - the project objectives to rectify the deficiency,
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
 - evaluate the options against evaluation criteria adopted by Council, and
 - select the best option to be included in capital renewal programs,
- Using 'low cost' renewal methods (cost of renewal is less than replacement) wherever possible,
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council,
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs,
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required,
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.



Renewal Ranking Criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (eg. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (eg. roughness of a road).⁹

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a high utilisation and subsequent impact on users would be greatest,
- The total value represents the greatest net value to the organisation,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Where replacement with modern equivalent assets would yield material savings.¹⁰

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in the following table.

Criteria	Weighting
Fit for purpose	25%
Safety	50%
Maintenance requirements	15%
Community expectation	10%
Total	100%

Renewal and Replacement Priority Ranking Criteria

Renewal and Replacement Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- Building Code of Australia
- Armidale Dumaresq Council Engineering Code
- Australian Standard AS/NZ 4422-1996

5.4.3 Summary of Future Renewal and Replacement Expenditure

Projected future renewal and replacement expenditures are forecast to increase over time as the asset stock increases from growth. The expenditure is summarised in the following figure. Note that all amounts are shown in real values.

The projected capital renewal and replacement program is shown in Appendix A.

⁹ IPWEA, 2011, IIMM, Sec 3.4.4, p 3|60.

¹⁰ Based on IPWEA, 2011, IIMM, Sec 3.4.5, p 3|66.



Projected Capital Renewal and Replacement Expenditure

Armidale Dumaresq - Projected Capital Renewal Expenditure (Recreation_S1_V1)



Deferred renewal and replacement, ie. those assets identified for renewal and/or replacement and not scheduled in capital works programs are to be included in the risk analysis process in the Risk Management Plan.

Renewals and replacement expenditure in Council's capital works program will be accommodated in the Long Term Financial Plan. This is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the organisation from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed below.



New Assets Priority Ranking Criteria

Criteria	Weighting
Regulatory/Legislative Requirement	30%
Compliance with Community Strategic Plan	30%
Council Resolution	20%
Other Council Plans Linked to Strategic Plan	20%
Total	100%

5.5.2 Capital Investment Strategies

The organisation will plan capital upgrade and new projects to meet level of service objectives by:

- Planning and scheduling capital upgrade and new projects to deliver the defined level of service in the most efficient manner,
- Undertake project scoping for all capital upgrade/new projects to identify:
 - the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset,
 - the project objectives to rectify the deficiency including value management for major projects,
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
 - management of risks associated with alternative options,
 - evaluate the options against evaluation criteria adopted by Council, and
 - select the best option to be included in capital upgrade/new programs,
- Review current and required skills base and implement training and development to meet required construction and project management needs,
- Review management of capital project management activities to ensure Council is obtaining best value for resources used.

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.

5.5.3 Summary of Future Upgrade/New Assets Expenditure

Projected upgrade/new asset expenditures are summarised in the following figure. The projected upgrade/new capital works program is shown in Appendix B. All amounts are shown in real values.



Projected Capital Upgrade/New Asset Expenditure

Armidale Dumaresq - Upgrade & New Assets to meet Demand (Recreation_S1_V1)



Contributed Constructed

Expenditure on new assets and services in Council's capital works program will be accommodated in The Long Term Financial Plan. This is further discussed in Section 6.2.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in the following table, together with estimated annual savings from not having to fund operations and maintenance of the assets. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Any revenue gained from asset disposals is accommodated in Council's Long Term Financial Plan.

Where cashflow projections from asset disposals are not available, these will be developed in future revisions of this Asset Management Plan.



6 Plan Improvement and Monitoring

6.1 Status of Asset Management Practices

6.1.1 Accounting and Financial Systems

Council uses the Technology One Suite of applications for its financial and asset accounting systems. The three (3) major applications are:

- Finance 1 running a General Ledger, Project Ledger, Fleet Ledger and Work Order Ledger
- Works and Assets managing the project and work order interface to the asset database
- Matman providing detailed work order and performance data

Accountabilities for Financial Systems

The Chief Financial and Information Officer is responsible for all financial systems within the organisation and has a team of staff to assist in the process which is also subject to internal and external audit.

Accounting Standards and Regulations

All financial data is prepared and maintained in accordance with:

- The Local Government Act (as amended) and the regulations thereunder.
- The Local Government Code of Accounting Practice and Financial Reporting
- The Australian Accounting Standards and professional pronouncements

Capital/Maintenance Threshold

Council's capital threshold is \$5,000. Costs under this will not be capitalised unless they are part of a project which has expenditure exceeding the \$5,000 figure.

6.2.1 Asset Management System

The asset management system is a basic spreadsheet. However, Council is in the process of setting up data in an "Enterprise Asset Management" system.

Asset Registers

Spreadsheet for recreation assets.

Linkage from Asset Management to Financial System

Tenuous at the best as only linked through work orders.

Accountabilities for Asset Management System and Data Maintenance

Section Managers.



6.2 Improvement Program

The Asset Management Improvement Plan generated from this Asset Management Plan is shown in in the following table.

Task No	Task	Responsibility	Resources Required	Timeline
1	Improve risk strategies	Manager	Within current budgets	12 months
2	Improve asset data construction/acquisition dates	Manager	Within current budgets	12 months
3	Improve valuation methods	Manager	Within current budgets	18 months
4	Improve works programmes	Manager	Within current budgets	18 months
5	Improve condition assessment methods	Manager	Within current budgets	18 months
6	Get valuation of pool structures	Manager	Within current budgets	12 months

Improvement Plan

6.3 Monitoring and Review Procedures

This Asset Management Plan will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

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 Council's Long Term Financial Plan.

The AM Plan has a life of four (4) years (Council election cycle) and is due for complete revision and updating within 12 months of each Council election.

6.4 **Performance Measures**

The effectiveness of the Asset Management Plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this Asset Management Plan are incorporated into Council's Long Term Financial Plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the Asset Management Plan
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the organisation's Strategic Plan and associated plans
- The Asset Renewal Funding Ratio achieving the target of 1.0.



7 Financial Summary

This section contains the financial requirements resulting from all the information presented in the previous sections of this Asset Management Plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

7.1 Financial Statements and Projections

The financial projections are shown in the following figure for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.



Projected Operating and Capital Expenditure





7.1.1 Sustainability of Service Delivery

There are four key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the asset renewal funding ratio, long term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹¹ 70%

The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years, Council is forecasting that it will not have the level of the funds required for the optimal renewal and replacement of its assets.

Long Term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this Asset Management Plan is \$2,591,000 per year (average operations and maintenance expenditure plus depreciation expense projected over 10 years).

Life cycle costs can be compared to life cycle expenditure to give an initial indicator of affordability of projected service levels when considered with age profiles. Life cycle expenditure includes operations, maintenance and capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure over the 10 year planning period is \$2,607,000 (average operations and maintenance plus capital renewal budgeted expenditure in the Long Term Financial Plan over 10 years).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap. The life cycle gap for services covered by this Asset Management Plan is \$792,000.

Life cycle expenditure is 93% of life cycle costs.

The life cycle costs and life cycle expenditure comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist Council in providing services to the community in a financially sustainable manner. This is the purpose of the Asset Management Plan and Long Term Financial Plan.

Medium Term – 5-10 Year Financial Planning Period

This Asset Management Plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

These projected expenditures may be compared to budgeted expenditures in the 10 year period to identify any funding shortfall. In a core Asset Management Plan, a gap is generally due to increasing asset renewals for ageing assets.

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is \$2,607,000, on average, per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$1,989,000 per year giving a 10 year funding shortfall of \$272,000 per year. This indicates that Council expects to have 88% of the projected expenditures needed to provide the services documented in the Asset Management Plan.

¹¹ AIFMG, 2009, Financial Sustainability Indicator 8, Sec 2.6, p 2.18 Recreation and Open Space Asset Management Plan 2014 - 2024



Asset Management Financial Indicators

The following figure shows the asset management financial indicators over the 10 year planning period and for the long term life cycle.



Asset Management Financial Indicators

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the Asset Management Plan and ideally over the 10 year life of the Long Term Financial Plan.

The following figure shows the projected asset renewal and replacement expenditure over the 20 years of the AM Plan. The projected asset renewal and replacement expenditure is compared to renewal and replacement expenditure in the capital works program, which is accommodated in the Long Term Financial Plan.



Projected and LTFP Budgeted Renewal Expenditure

Armidale Dumaresq - Projected & LTFP Budgeted Renewal Expenditure (Recreation_S2_V1)



The following table shows the shortfall between projected renewal and replacement expenditures and expenditure accommodated in the Long Term Financial Plan. Budget expenditures accommodated in the Long Term Financial Plan or extrapolated from current budgets are shown in Appendix B.



RECREATION AND OPEN SPACE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	66	57	6	589	-	57	-	66	424	473	1,738
Total Program Summary in \$'000	Upgrades =	117	112	253	35	36	62	39	40	33	-	727
	Annual Total =	183	169	259	624	36	119	39	106	457	473	2,465
Renewals		66,000	56,500	6,000	588,890	-	57,242	728	66,210	424,001	473,181	1,738,752
New Works & Upgrades		116,994	112,334	252,872	34,851	36,070	62,333	38,639	39,992	32,992	-	727,077
TOTAL RENEWALS, NEW WORKS & UPGRADES		182,994	168,834	258,872	623,741	36,070	119,575	39,367	106,202	456,993	473,181	2,465,829

Summary of Projected 10 Year Renewal and Upgrading Works Without SRV



RECREATION AND OPEN SPACE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	189	193	151	719	113	161	89	117	446	542	2,720
Total Program Summary in \$'000	Upgrades =	267	112	253	35	36	63	39	40	33	-	878
	Annual Total =	456	305	404	754	149	224	128	157	479	542	3,598
Renewals		188,668	193,204	151,472	718,789	112,519	161,242	89,557	117,236	446,201	542,005	2,720,893
New Works & Upgrades		266,994	112,334	252,872	34,851	36,070	62,333	38,639	39,992	32,992	-	877,077
TOTAL RENEWALS, NEW WORKS & UPGRADES		455,662	305,538	404,344	753,640	148,589	223,575	128,196	157,228	479,193	542,005	3,597,970

Summary of Projected 10 Year Renewal and Upgrading Works with SRV of 10%



Armid	ale Dumares	sq >> Asset	Managemen	it Plan Table
		01_01/		
Year End	Projected	LTFP	Renewal Financing	Cumulative Shortfall(\$'000)
Jun- 30	Renewals	Renewal Budget	Shortfall (\$'000)	(- gap, + surplus)
	(\$'000)	(\$'000)	(- gap, + surplus)	
2015	\$10	\$189	\$179	\$179
2016	\$105	\$193	\$88	\$267
2017	\$442	\$151	-\$291	-\$24
2018	\$143	\$719	\$576	\$552
2019	\$22	\$113	\$91	\$643
2020	\$94	\$161	\$67	\$710
2021	\$129	\$89	-\$40	\$670
2022	\$669	\$117	-\$552	\$142
2023	\$0	\$446	\$446	\$564
2024	\$502	\$542	\$40	\$604

Projected and LTFP Budgeted Renewals and Financing Shortfall

Note: A negative shortfall indicates a financing gap, a positive shortfall indicates a surplus for that year.

Providing services in a sustainable manner will require matching of projected asset renewal and replacement expenditure to meet agreed service levels with the corresponding capital works program accommodated in the Long Term Financial Plan.

A gap between projected asset renewal/replacement expenditure and amounts accommodated in the Long Term Financial Plan indicates that further work is required on reviewing service levels in the AM Plan (including possibly revising the Long Term Financial Plan) before finalising the Asset Management Plan to manage required service levels and funding to eliminate any funding gap.

Council will manage the 'gap' by developing this Asset Management Plan to provide guidance on future service levels and resources required to provide these services and review future services, service levels and costs with the community.



7.1.2 Projected Expenditures for Long Term Financial Plan

The following table shows the projected expenditures for the 10 Year Long Term Financial Plan.

Expenditure projections are in 2012 real values.

			Projected	Capital	
Year	Operations	Maintenance	Capital Renewal	Upgrade/New	Disposals
2015	\$384.56	\$1,738.72	\$189.00	\$267.00	\$0.00
2016	\$388.47	\$1,756.36	\$193.00	\$112.00	\$0.00
2017	\$389.44	\$1,760.77	\$151.00	\$253.00	\$0.00
2018	\$394.21	\$1,782.34	\$719.00	\$35.00	\$0.00
2019	\$394.27	\$1,782.62	\$113.00	\$36.00	\$0.00
2020	\$394.34	\$1,782.91	\$161.00	\$63.00	\$0.00
2021	\$394.40	\$1,783.20	\$89.00	\$39.00	\$0.00
2022	\$394.47	\$1,783.49	\$117.00	\$40.00	\$0.00
2023	\$396.31	\$1,791.83	\$446.00	\$33.00	\$0.00
2024	\$398.16	\$1,800.18	\$452.00	\$0	\$0.00

Projected Expenditures for Long Term Financial Plan (\$000)

7.2 Funding Strategy

After reviewing service levels as appropriate to ensure ongoing financial sustainability, projected expenditures identified in Section 6.1.2 will be accommodated in Council's 10 Year Long Term Financial Plan.

7.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by the organisation and from assets constructed by land developers and others and donated to the organisation. The following figure shows the projected replacement cost asset values over the planning period in real values.



Projected Asset Values



Armidale Dumaresq - Projected Asset Values (Recreation_S1_V1)

Depreciation expense values are forecast in line with asset values as shown in the following figure.



Projected Depreciation Expense



Armidale Dumaresq - Projected Asset Values (Recreation_S3_V1)

The depreciated replacement cost will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Forecast of the assets' depreciated replacement cost is shown in the following figure. The depreciated replacement cost of contributed and new assets is shown in the darker colour and in the lighter colour for existing assets.



Projected Depreciated Replacement Cost



Armidale Dumaresq - Projected Depreciation Expense (Recreation_S3_V1)

7.4 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan and risks that these may change are shown in the following table.

Key Assumptions made in AM Plan and Risks of Change

Key Assumptions	Risks of Change to Assumptions
That the plan has been formulated on the best available	That the total amounts for assets will change and the
information at the time	expenditure required will change
Replacement costs from varied sources	Review replacement costs assumptions

7.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale¹² in accordance with the following table.

¹² IPWEA, 2011, IIMM, Table 2.4.6, p 2 | 59.



Data Confidence Grading System

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and recognised
	as the best method of assessment. Dataset is complete and estimated to be accurate \pm 2%
B Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor
	shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed
	on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported,
	or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially
	complete but up to 50% is extrapolated data and accuracy estimated \pm 25%
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be
	fully complete and most data is estimated or extrapolated. Accuracy \pm 40%
E Unknown	None or very little data held

The estimated confidence level for and reliability of data used in this AM Plan is shown in the following table.

Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	С	Known demand drivers are based on community makeup.
		Others to be ascertained through future community
		consultation
Growth projections	A	Derived from Census data
Operations expenditures	A	Based upon actuals
Maintenance expenditures	A	Based upon actuals
Projected renewal exps.	С	Based upon today's dollars only
- Asset values		
- Asset residual values	С	Based upon best guess acquisition dates
- Asset useful lives	С	Based upon a number of sources. However, some based on
		industry experience
- Condition modelling	С	No formal condition assessment model adopted
- Network renewals	С	Based upon industry experience
- Defect repairs	В	Based upon Inspection reports
Upgrade/New expenditures	В	Sourced from other adopted plans
Disposal expenditures	N/A	None identified

Over all data sources, the data confidence is assessed as Medium confidence level for data used in the preparation of this AM Plan.



8 References

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/IIMM</u>
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/namsplus</u>.
- IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/AIFMG</u>.
- IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/IIMM</u>

Armidale Dumaresq Council ' Community Strategic Plan 2013-2028'

Armidale Dumaresq Council 'Operational Plan'



9 Appendices

- Appendix AProjected 10 Year Capital Renewal and Replacement Works ProgramAppendix BProjected Upgrade/Exp/New 10 Year Capital Works ProgramAppendix CBudgeted Expenditures Accommodated in Long Term Financial PlanAppendix DAbbreviationsAppendix EGlossary
- Appendix F Detailed Parks Inventory



Appendix A Projected 10 Year Capital Renewal and Replacement Works Program

RECREATION AND OPEN SPACE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	66	57	6	589	-	57	-	66	424	473	1,738
Total Program Summary in \$'000	Upgrades =	117	112	253	35	36	62	39	40	33	-	727
	Annual Total =	183	169	259	624	36	119	39	106	457	473	2,465
Renewals New Works & Upgrades		66,000 116,994	56,500 112,334	6,000 252,872	588,890 34,851	- 36,070	57,242 62,333	728 38,639	66,210 39,992	424,001 32,992	473,181 -	1,738,752 727,077
TOTAL RENEWALS, NEW WORKS & UPGRADES		182,994	168,834	258,872	623,741	36,070	119,575	39,367	106,202	456,993	473,181	2,465,829

Summary of Projected 10 Year Renewal and Upgrading Works Without SRV



RECREATION AND OPEN SPACE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	189	193	151	719	113	161	89	117	446	542	2,720
Total Program Summary in \$'000	Upgrades =	267	112	253	35	36	63	39	40	33	-	878
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TOTAL RENEWALS, NEW WORKS & UPGRADES		455,662	305,538	404,344	753,640	148,589	223,575	128,196	157,228	479,193	542,005	3,597,970

Summary of Projected 10 Year Renewal and Upgrading Works with SRV of 10%







Appendix B Projected Upgrade/Exp/New 10 Year Capital Works Program

Armidale Dumaresq

Projected Capital Upgrade/New Works Program - Recreation_S1_V1

			(\$000)
Year	Item	Description	Estimate
2012	1	Upgrade Toilets	\$20
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
2012		Total	\$20

			(\$000)
Year	Item	Description	Estimate
2013	1	CCTV Apex Lookout	\$8
	2	CCTV Central park	\$8
	3	New Auto toilet McDonald park	\$115
	4	MacDonald park Rubber Undersurfacing	\$60
	5	Low Impact Exersites	\$71
	6	Backflow Prevention devices	\$52
	7	Solar panels on facilities	\$25
	8		
	9		
	10		
2013		Total	\$339

			(\$000)
Year	Item	Description	Estimate
2014	1	Sportsground - upgrade change rooms	\$40
	2	New seating	\$5
	3		


2014		Total	\$45
	10		
	9		
	8		
	7		
	6		
	5		
	4		

			(\$000)
Year	Item	Description	Estimate
2015	1	3 additional light poles + lights	\$100
	2	Netball Court Lights	\$50
	3	Upgrade old facilities at Lambert for storage	\$6
	4	Seating	\$3
	5	Solar panels on facilities	\$25
	6		
	7		
	8		
	9		
	10		
2015		Total	\$184

			(\$000)
Year	Item	Description	Estimate
2016	1	Canteen Storage -Elizabeth Park	\$40
	2	Seating	\$6
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
2016		Total	\$46

(\$0	ທດາ
(20	00)

			(2000)
Year	Item	Description	Estimate
2017	1	Newling - upgrade facilities	\$50



2017		Total	\$225
	10		
	9		
	8		
	7		
	6		
	5		
	4		
	3	Solar panels on buildings	\$25
	2	Lynches - Building/Storage	\$150

			(\$000)
Year	Item	Description	Estimate
2018	1	Seating	\$3
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
2018		Total	\$3

			(\$000)
Year	Item	Description	Estimate
2019	1	Seating	\$3
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
2019		Total	\$3

(\$000)



Year	Item	Description	Estimate
2020	1	Seating	\$3
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
2020		Total	\$3

(\$000)

Year	Item	Description	Estimate
2021	1	Seating	\$3
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		



Appendix C Budgeted Expenditures Accommodated in Long Term Financial Plan

Projected Expenditure	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Capital Expenditure on Renewal/Replacement of existing asets	\$487.00	\$487.00	\$487.00	\$487.00	\$487.00	\$487.00	\$487.00	\$487.00	\$487.00	\$487.00
Capital Expenditure on Upgrade/New assets	\$20.00	\$339.00	\$45.00	\$184.00	\$46.00	\$225.00	\$3.00	\$3.00	\$3.00	\$3.00
Operations & Maintenance of existing assets	\$2,076.00	\$2,076.00	\$2,076.00	\$2,076.00	\$2,076.00	\$2,076.00	\$2,076.00	\$2,076.00	\$2,076.00	\$2,076.00
Operations & Maintenance of New assets	\$0.00	\$2.34	\$42.02	\$47.29	\$68.83	\$74.21	\$100.55	\$100.90	\$101.25	\$101.60
Operations & Maintenance of New assets	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
								All d	ollar values	in (\$'000)'s



Appendix D Abbreviations

AAAC	Average annual asset consumption
AM	Asset management
AM Plan	Asset Management Plan
ARI	Average recurrence interval
ASC	Annual service cost
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
DRC	Depreciated replacement cost
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life cycle cost
LCE	Life cycle expenditure
LTFP	Long term financial plan
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SoA	State of the Assets
SS	Suspended solids
vph	Vehicles per hour
WDCRD	Written down current replacement cost



Appendix E Glossary



Annual service cost (ASC)

- Reporting actual cost
 The annual (accrual) cost of providing a service
 including operations, maintenance, depreciation,
 finance/opportunity and disposal costs less revenue.
- For investment analysis and budgeting An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operations, maintenance, depreciation, finance/opportunity and disposal costs, less revenue.

Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

Asset management (AM)

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Asset renewal funding ratio

The ratio of the net present value of asset renewal funding accommodated over a 10 year period in a long term financial plan relative to the net present value of projected capital renewal expenditures identified in an Asset Management Plan for the same period [AIFMG Financial Sustainability Indicator No 8].

Average annual asset consumption (AAAC)*

The amount of an organisation's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life (or total future economic benefits/service potential) and totalled for each and every asset OR by dividing the carrying amount (depreciated replacement cost) by the remaining useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

Borrowings

A borrowing or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital expenditure - expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future operations and maintenance costs, because it increases the organisation's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure - new



Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

Capital expenditure - renewal

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, e.g. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Capital expenditure - upgrade

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the organisation's asset base, e.g. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition.

Capitalisation threshold

The value of expenditure on non-current assets above which the expenditure is recognised as capital expenditure and below which the expenditure is charged as an expense in the year of acquisition.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See Asset class definition.

Component

Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

Core asset management

Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision- making).

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes oneoff design and project management costs.

Critical assets

Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than noncritical assets.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.



Deferred maintenance

The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value.

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See Useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital outlays.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Financing gap

A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets that contribute to meeting the needs of organisations or the need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no separate market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes or
- (b) sale in the ordinary course of business.

Key performance indicator

A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

Level 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.

Life Cycle Cost*

- 1 **Total LCC** The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
- 2 Average LCC The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises average operations, maintenance expenditure plus asset consumption expense, represented by depreciation expense projected over 10 years. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.



Life cycle expenditure

The Life Cycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long term financial plan over 10 years. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.

Loans / borrowings

See borrowings.

Maintenance

All actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating, e.g. road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

• Planned maintenance

Repair work that is identified and managed through a maintenance management system (MMS). MMS 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.

• Reactive maintenance

Unplanned repair work that is carried out in response to service requests and management/ supervisory directions.

• Specific maintenance

Maintenance work to repair components or replace sub-components that needs to be identified as a specific maintenance item in the maintenance budget.

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 to maintain its level of security and integrity.

Maintenance expenditure*

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

The notion of materiality guides the margin of error acceptable, the degree of precision required and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

Modern equivalent asset

Assets that replicate what is in existence with the most costeffective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques

Net present value (NPV)

The value to the organisation of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows after deducting the value of the discounted total cash outflows arising from eg. the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operations

Regular activities to provide services such as public health, safety and amenity, eg. street sweeping, grass mowing and street lighting.

Operating expenditure

Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, eg. power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is on the other hand included in operating expenses.



Operating expense

The gross outflow of economic benefits, being cash and non cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

Operating expenses

Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

Operations, maintenance and renewal financing ratio

Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (eg. 5, 10 and 15 years).

Operations, maintenance and renewal gap

Difference between budgeted expenditures in a long term financial plan (or estimated future budgets in absence of a long term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (eg. 5, 10 and 15 years).

Pavement management system (PMS)

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

The ratio of annual asset consumption relative to the depreciable amount of the assets. It measures the amount of the consumable parts of assets that are consumed in a period (depreciation) expressed as a percentage of the depreciable amount.

Rate of annual asset renewal*

The ratio of asset renewal and replacement expenditure relative to depreciable amount for a period. It measures whether assets are being replaced at the rate they are wearing out with capital renewal expenditure expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade/new*

A measure of the rate at which assets are being upgraded and expanded per annum with capital upgrade/new expenditure expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operations and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining useful life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining useful life is useful life.

Renewal

See capital renewal expenditure definition above.

Residual value

The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, e.g. public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.



Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/public sector to value assets, particularly those not producing a cash flow.

Service potential remaining

A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).

Specific maintenance

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Strategic longer-term plan

A plan covering the term of office of councillors (4 years minimum) reflecting the needs of the community for the foreseeable future. It brings together the detailed requirements in the Council's longer-term plans such as the Asset Management Plan and the long-term financial plan. The plan is prepared in consultation with the community and details where the Council is at that point in time, where it wants to go, how it is going to get there, mechanisms for monitoring the achievement of the outcomes and how the plan will be resourced.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.

Value in use

The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits.

Source: IPWEA, 2009, Glossary

Additional and modified glossary items shown*



Appendix F Detailed Parks Inventory

Table of passive recreation areas (parks are identified by park name or number and may consist of multiple land parcels)

Park		Service Leve	1	
Number	Park Name	Group	Location	Area in Hectares
2076	The Avenue Park	С	Ross Street/The Avenue	0.339
2106	Albion Park	С	Cnr Beardy/Markham	0.703
2025	Andy Park	С	Between Phoenix Lane/Dumaresq St	0.446
2039	Arboretum	A1	Between Kentucky and Galloway	12.39
2127	Bakers Creek Reserve	D	Old Hillgrove Rd	0.234
2005	Beadle Grove	С	Cnr Lynches/Markham	1.058
2210	Belgrave Park	С	Dumaresq/Jessie (near Cinema)	0.278
2002	Bowmans Park 1	С	Between Short/Lynches	0.317
2002A	Bowmans Park 2	В	Between Bowmans/Lynches	0.568
2002B	Bowmans Park 3	С	Between Lynches Rd/Dorothy Ave	0.649
2026	Bowmans Park 4	С	Between Dorothy and Markham	0.137
2030	Caroline Cres Reserve	С	Caroline Cres	0.285
2036	Central Park	А	125 Dangar St (Dangar/Barney)	1.955
2052	Civic park	A1	Corner Faulkner/Dumaresq	2.641
2052A	Civic Park North	A1	North of Creek Kirkwood/Dangar	0.452
2068	Creeklands off Markham	С	Niagara to Markham North side of creek	1.425
2051A	Creeklands East	С	North side of creek Marsh/Taylor	1.583
2057	Creeklands East	С	Creeklands East from Taylor to Centennial Close	9.551
2054A	Curtis Park North	A1	Cnr Kirkwood/Marsh	0.771
2054	Curtis Park South	A1	Cnr Dumaresq/Faulkner	1.319
2022	Cycleway West	С	West of Cycleway off Niagara St	4.002
2059	Drummond Park	В	Jessie/Donnelly	21.29
3032	Dumaresq Dam	В	Dumaresq Dam Rd	306.9
2015	East Armidale Park	С	66 Mann Street	0.237
2010	Fiona Place Park	С	Fiona Place	0.077



Park		Service Leve		
Number	Park Name	Group	Location	Area in Hectares
2110	Fitzgerald Ave Reserve	С	4953-00000-9	0.069
2085	Hawke St Park	В	Hawke St/Simpson Ave	0.542
2038	Helen Ave Park	В	Cnr Helen/Glenelg	0.229
2114	Jones Avenue Park	В	North Western Corner Jones Ave	0.275
2025A	Ken Jones Park	С	Cnr Markham/Dumaresq	0.528
2004	Lambs Avenue Reserve	В	Cnr Hargrave/Lambs	0.081
2003	Letters Place	С	End Freeman Close	0.187
2124	Lynland Park	D	13 Homestead Lane	0.581
2023	MacDonald Drive Park	В	Between Canambe/Cookes on Nth side of creek	6.913
2007	Manna Gum Reserve	D	O'Connor Rd below Cemetery	5.075
2037	McDonald park	A1	Barney St near Taylor and Douglas	4.09
2115	Milson Place	D	Near Verna Close	0.036
2213	Mozeley Place Park	С	3 Mozeley Place	0.1701
2100	North Street Park	С	Joan Place/Sylvia Cres	1.727
2118	Parrydale Park	В	Corner Parry/Dale	0.4628
3032A	Part Dumaresq dam	D	North of dam	31.5
2045	PG Love	В	North side of Creek (Includes Maude St Res)	2.979
2055A	Pool Park	С	Between Pool and Creek near Markham	0.855
2006	Robina Crescent Reserve	В	Robina Crescent	0.306
2031	Rockvale Rd Park	В	Between Rockvale Rd/Chestnut	2.493
2075	Ross St Park	С	Ross Street/O'Connor Rd	0.44
2041	Rotary Park	С	Between Barry/Bundarra/Miller	0.916
2216	Rusden Court	С	Central Island western end of Rusden Street	0.1883
2046	Stewart Cres	В	Stewart Cres	0.275
2111A	Unnamed	D	Cnr Rockvale/Chestnut near Merinda	0.108
2033	Unnamed	D	South side of creek between Claude/ Niagara	0.815
2073	Unnamed	D	Tancredi Street	0.752



Park		Service Leve	Service Level			
Number	Park Name	Group	Location	Area in Hectares		
2074	Wigan Ave Reserve	С	Behind Wigan Avenue	0.451		
2029	Wilson Avenue Park	В	Wilson Avenue	0.377		
2126	Wollomombi Park	D	Opposite Sauer Hall	0.18		





Service Park Level Number Park Name group Location Area in Hectares Cnr Douglas/Dumaresq 2060 Armidale Sportsground А 4.276 2047 В Between Taylor/Rockvale Rd Near Erskine 1.726 Bruce Browning 40.98 2128 Charlston Willows D Rockvale Rd 2056 Elizabeth Park 1 В **Dumaresq Street** 3.32 2209 Elizabeth Park 2 Between Butler/Odell/Donnelly 5.544 В Cnr Douglas/Donnelly 2093 Equestrian Centre D 4.357 2061 Harris Park А Cnr Kirkwood/Dangar 5.643 2121 Bracken Street Hillgrove sportsground D 4.137 2018 Lambert Park В **Opposite Hospital** 2.704 2040 Lynches Rd Sportsfields В Lynches/Kelly's Plains Rd 2.689 2212 Moran Ovals Cnr Taylor/Kentucky А 14.6 Newling Oval Cnr Taylor/Kentucky 2211 В 5.016 Nth Armidale Sporting Complex 2116 В Erskine/Canambe 5.115 2058 **Rologas Family Fields** А Between Marsh/Taylor 4.902 2122 **Tilbuster Tennis Courts** Widders Road 0.269 D С 2091 Watson Park Cnr Brown and Butler Sts 1.262 2058A Wicklow Oval South of Kirkwood cnr Taylor 1.63 А 2058B Wicklow Ovals North of Kirkwood cnr Taylor 2.975 А

5.1.1.2 Table of Active Parks (Sporting Fields) (parks are identified by park name or number and may consist of multiple land parcels)

Recreation and Open Space Asset Management Plan 2014 - 2024

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5.1.1.3 Table of Playgrounds

Playgrounds are situated in the parks listed in the table below. Some parks have more than one playground area.

Park Name	Service Level Group
Curtis Park South (2054)	A1
Arboretum (2039)	A1
Curtis Park North (2054A)	A1
The Avenue Park (2075)	В
Bruce Browning (Passive) (2047)	В
Stewart Crescent (2046)	В
Dumaresq Dam (3032(В
MacDonald Drive Park (2023)	В
Drummond Park (2059)	В
Rockvale Rd Pk (2031)	В
East Mall (3026A)	А
East Armidale Park (2015)	В
Robina Crescent Reserve (2006)	В
Wilson Avenue Park (2029)	В
Jones Avenue Park (2114)	В
Lambs Avenue Reserve (2004)	В
Helen Ave Park (2038)	В
Hawke St Park (2085)	В
PG Love (2045)	В
Parrydale Park (118)	В
Bowmans Park 2 (2002A)	В
McDonald Park (2037)	A1
Central Mall (3026)	А

Barbeques

Park name	Service group	Energy Type	Hotplates
Arboretum	A	Electric	2
Bruce Browning	В	Electric	2
Curtis north	A	Electric	2
Curtis south	A	Electric	1
Dumaresq Dam	В	Electric	2
		Wood	5
McDonald	A	Electric	2
Metz	D	Wood	1
Bakers Creek Lookout	D	Wood	1
Hillgrove Sportsground	D	Gas	1



Cricket wickets and practice nets

Location	Туре	Number
Harris Park	Turf	1
	Synthetic	2
	Practice	3 lanes
Rologas (2058)	Turf	1
Wicklow Oval (2058A)	Synthetic	1
Wicklow (2058B)	Synthetic	2
Lambert Park	Turf	1
Newling	Synthetic	2
	Practice	3 lanes
Moran	Turf	1
Armidale Sportsground	Turf	1
	Practice	2 lanes
Elizabeth Park 1	Synthetic	1
Elizabeth Park 2	Synthetic	1
	Concrete	1
Watson Park	Concrete	1
	Practice	3 lanes
MacDonald Drive Park	Concrete	1
North Armidale Sporting Complex	Synthetic	1
	Practice	3 lanes
Bruce Browning Park	Synthetic	1



5.1.1.7 Irrigation Systems

Park	System Type
Central Park	Manual
The Avenue Park	Manual
Lambert Park (sportsfield only)	Automatic
Elizabeth Park 1	Automatic
Elizabeth Park 2	Automatic
Armidale Sportsground	Automatic
Rologas	Automatic
Wicklow (2058B)	Automatic
Bruce Browning	Automatic
Harris Park	Automatic
Lynches Rd Netball Courts (size reduced due to expansion of netball courts)	Automatic

X



Stormwater Drainage Asset Management Plan 2014 to 2024





Applies to:	
Officer Responsible:	
Associated Documents:	Any listed below
Legislation:	Any listed below
History:	Version I - 28 June 2012
	Version II - 7 May 2013
	Version III - February 2014
G&R Meeting Date:	
Council Meeting:	
Council Minute Number:	
TRIM File Number:	INT/2014/02125
Review Date:	
Reasons for Change:	
Author:	James Turnell
Reviewer:	Luke Finnegan
Approver:	David Steller



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1 Executive Summary

Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of Council's vision, mission, goals and objectives.

Our vision is:

Excellent Lifestyle – Sustainable Growth

Our mission is:

To provide Community leadership and Local Government Services in a sustainable and effective manner and

> To enhance our areas social, economic and environmental values

Context

Armidale Dumaresq Council (ADC) provides a stormwater drainage network to enable water runoff to be directed into a pipe network and then conveyed to creeks. Storm events which produce higher rates of runoff are directed to natural watercourses using aboveground channels, either in roadways or constructed open channels which often double as recreational land in dry weather. ADC also has a program aimed at reducing gross pollutants entering the environment.

The summary of assets included in this Asset Management Plan is as follows:

- 85km of underground pipes;
- 3,419 headwalls;
- 108 culverts (excluding culverts which are part of the road network);
- 4 engineered gross pollutant traps (GPT's);
- 1.5km of concrete V channels; and
- 6 basic trash rack type GPT's.

These infrastructure assets have a replacement value of \$43 million as at 2013.

What does it cost?

The projected outlays to provide the necessary services including operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is \$7.17 million or \$717,000, on average, per year.

Council's estimated available funding for this period is \$4.27 million or \$427,000, on average, per year which is 61% of the cost required to provide the service. This is a funding shortfall of \$290,000, on average, per year. Projected expenditure required to provide services in the AM Plan compared with planned expenditure currently included in the Long Term Financial Plan are shown in the graph following.



What we will do

Council plans to provide stormwater services for the following:

- Operation, maintenance, renewal and upgrade of pipes, pits, culverts, channels and GPT's to meet service levels set by Council in annual budgets.
- Assess the condition of all assets within the stormwater network and prioritise critical renewals within the 10 year planning period.
- Improve assumptions used in financial forecasting for the stormwater Drainage Asset Management Plan.
- Develop greater understanding of critical infrastructure risks and treatment plans in conjunction with ADC's Enterprise Risk



Management.

What we cannot do

Council does not have enough funding to provide all services at the desired service levels or to provide new services. Works and services that cannot be provided under present funding levels are:

- Renewals of existing stormwater assets to match their annual depreciation expense.
- The construction of larger capital drainage infrastructure where it has been identified that there is insufficient stormwater drainage.
- Construct non-removal barricades at culverts (Dumaresq Creek crossing) to prevent irresponsible removal of temporary barricades and the subsequent risk of vehicles entering floodwaters.

Managing the risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. The risks are likely to be exacerbated with climate change as current climate models predict that our LGA will be affected by shorter high intensity rainfall events (flash flooding).

Therefore, we have not identified major risks but there are moderate risks which have been identified:

- The potential for public and private property flooding in areas where stormwater drainage is inadequate.
- The risk that the public may enter flooded crossings along Dumaresq Creek and its tributaries.

We will endeavour to manage these risks within available funding by:

 Ensuring that the existing drainage infrastructure is working as efficiently as possible by ensuring pipes and associated infrastructure is maintained.

The Next Steps

The actions resulting from this Asset Management Plan are:

- Continue to undertake CCTV footage of pipes and regular asset inspections of pits, headwalls, culverts and GPT's to determine and monitor the asset condition.
- Continue to maintain the assets according to the Operational Plan as adopted by Council.
- Improve data and refine assumptions in Asset Register including useful life and remaining life.
- Work in conjunction with our insurers and regulators to ensure compliance with risk and environmental management.
- Improve the accuracy of our unit rates used to determine current replacement costs.

Questions you may have

What is this plan about?

This Asset Management Plan covers the infrastructure assets that serve the ADC community's stormwater needs. These assets include pipes, pits, culverts, channels, & GPT's throughout the Council area that enables people to protect both life and property from larger storm events and minimise disturbances from minor storms and nuisance flooding.

What is an Asset Management Plan?

Asset Management Planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

Asset Management Plans detail information about infrastructure assets, including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.



Why is there a funding shortfall?

Most of the Council's stormwater network was constructed by developers and from government grants, often provided and accepted without consideration of ongoing operations, maintenance and replacement needs.

Many of these assets are approaching the later years of their life and require replacement; services from the assets are decreasing and maintenance costs are increasing.

Council's present funding levels are insufficient to continue to provide existing services at current levels in the medium term.

What options do we have?

Resolving the funding shortfall involves several steps:

- 1 Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels.
- 2 Improving our efficiency in operating, maintaining, renewing and replacing existing assets to optimise life cycle costs.
- 3 Identifying and managing risks associated with providing services from infrastructure.
- 4 Making trade-offs between service levels and costs to ensure that the community receives the best return from infrastructure.
- 5 Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs.
- 6 Consulting with the community to ensure that stormwater services and costs meet community needs and are affordable.
- 7 Developing partnerships with other bodies, where available, to provide services.
- 8 Seeking additional funding from governments and other bodies to better reflect a 'whole of government' funding approach to infrastructure services.

What happens if we don't manage the shortfall?

It is likely that Council will have to reduce service levels in some areas, unless new sources of revenue are found. For stormwater, the service level reduction may include:

- Increase flooding of public and private property.
- More nuisance flooding.
- Greater time between GPT cleanouts and more pollutants entering out waterways.
- Greater likelihood of structural failure for stormwater drainage infrastructure.
- Greater risk of vehicles entering floodwaters at creek crossings.

What can we do?

Council can develop options, costs and priorities for future stormwater services, consult with the community to plan future services to match the community service needs with the ability to pay for services and maximise community benefits against costs.

What are we doing?

In 2014 Council intended to apply to IPART for a 20% special rate variation (SRV), which would have been applied over the next seven (7) years, in order to increase its rate income to cover the cost shortfall of renewing critical stormwater assets and infrastructure.

An extensive community consultation process was undertaken to address the infrastructure renewal cost to income shortfall.

The proposals promoted to the community contain three (3) scenarios:

Scenario 1: increase rates by the normal rate pegging increase.

Scenario 2: increase rates by a 20% upfront special rate variation for 7 years.



Scenario 3: increase rates by 10% per year for two years.

In February 2014 Council resolved to apply to IPART for a 10% (plus rate peg) special rate variation over seven years. This plan has been adjusted to meet that.

Currently Council's asset renewal ratio has declined from 73% to 48% over four (4) years. This has developed due to improved asset management data, asset revaluations and increased cost of renewals. Currently Council is under-funding its asset renewals by \$4,631,000. The SRV is intended to improve this situation, however, Council will also need to review service levels and consolidate replacement strategies to get to a long term sustainable position.

What can you do?

Council will be pleased to consider your thoughts on the issues raised in this Asset Management Plan and suggestions on how Council may change or reduce its stormwater drainage mix of services to ensure that the appropriate level of service can be provided to the community within available funding.



Black Gully culvert under Markham Street - flow out of channel onto footpath - view south

2 Introduction

2.1 Background

This Asset Management Plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service over a 20 year planning period.

The Asset Management Plan follows the format for AM Plans recommended in Section 4.2.6 of the International Infrastructure Management Manual¹.

¹ IPWEA, 2011, Sec 4.2.6, Example of an Asset Management Plan Structure, pp 4|24 – 27.



The Asset Management Plan is to be read with Council's Asset Management Policy, Asset Management Strategy and the following associated planning documents:

- Webb McKeown Stormwater Study 1996
- Draft Stormwater Strategic Business Plan 2010
- Armidale Dumaresq Council DCP, LEP and Engineering Code

The infrastructure assets covered by this Asset Management Plan are shown in the following table. These assets are used by Council to provide stormwater drainage services to the community.

Assets Covered by this Plan

Asset Category	Dimension	Replacement Value (\$ Million)
Pipes	100 - 1650mm	30.1
Pits	All types and sizes	9.8
Culverts	All sizes	2.9
GPT's	Trash and Centrifugal	0.24
Open Channel	V-channel	0.17
TOTAL		\$43 Million

Key stakeholders in the preparation and implementation of this Asset Management Plan are shown in the following table:

Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Councillors	 Represent needs of community Allocate resources to meet the organisation's objectives in providing services while managing risks Ensure organisation is financial sustainable
CEO/General Manager	Inform Councillors of issues surrounding asset management and lead organisation towards asset sustainability
Community	Levels of stormwater service
Department of Public Infrastructure	Design and project management
Waste and Drainage Services	Service delivery and asset management
Northern Rivers CMA	Wider catchment management issues
Southern New England Landcare (SNEL)	Riparian vegetation along Dumaresq Creek floodplain and associated tributaries
Armidale Urban Rivercare Group (AURG)	Riparian vegetation along Dumaresq Creek and associated tributaries



2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by purchasing, by contract, construction by Council staff and/or by donation of assets constructed by developers and others to meet increased levels of service.

Council's goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance;
- Managing the impact of growth through demand management and infrastructure investment;
- Taking a lifecycle approach to developing cost-effective management strategies for the long term that meet the defined level of service;
- Identifying, assessing and appropriately controlling risks; and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed.²

2.3 Plan Framework

Key elements of the plan are:

- Levels of service specifies the services and levels of service to be provided by Council,
- Future demand how this will impact on future service delivery and how this is to be met,
- Life cycle management how Council will manage its existing and future assets to provide defined levels of service,
- Financial summary what funds are required to provide the defined services,
- Asset management practices,
- Monitoring how the plan will be monitored to ensure it is meeting Council's objectives,
- Asset Management Improvement Plan.

A road map for preparing an Asset Management Plan is shown on the next page:

² Based on IPWEA, 2011, IIMM, Sec 1.2 p 1 | 7.



Road Map for Preparing an Asset Management Plan

Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11.





2.4 Core and Advanced Asset Management

This Asset Management Plan is prepared as a 'core' Asset Management Plan over a 20 year planning period in accordance with the International Infrastructure Management Manual³. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery, and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Future revisions of this Asset Management Plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

2.5 Community Consultation

This 'core' Asset Management Plan is prepared to facilitate community consultation initially through feedback on public display of draft Asset Management Plans prior to adoption by Council. Future revisions of the Asset Management Plan will incorporate community consultation on service levels and costs of providing the service. This will assist Council and the community in matching the level of service needed by the community, service risks and consequences with the community's ability and willingness to pay for the service.

3 Levels of Service

3.1 Customer Research and Expectations

Council engaged a consultancy firm to undertake a survey of the community to determine satisfaction with the services provided by Council. The survey was undertaken in 2009 and a final report was presented to Council in May 2009. This telephone survey polls a sample of residents on their level of satisfaction with Council's services. The most recent customer satisfaction survey reported satisfaction levels for the following services:

- Drainage infrastructure
- Water quality controls (GPT's), anecdotal evidence suggest that the community would like to see less gross pollutants in Dumaresq Creek.

³ IPWEA, 2011, IIMM.



Performance Measure	Satisfaction Level					
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied	
Nuisance flooding (less than 5			V			
year Average Recurrence Interval						
(ARI)) channelled to underground						
pipes in residential areas						
Nuisance flooding (less than 20			V			
year Average Recurrence Interval						
(ARI)) channelled to underground						
pipes in commercial areas						
Flooding (greater than 5 year ARI)			√			
channelled to overland open						
channels in residential areas						
Flooding (greater than 20 year			V			
ARI) channelled to overland open						
channels in commercial areas						
Stormwater quality				√ (Not		
				tested)		

Community Satisfaction Survey Levels





Council uses this information in developing its Community Strategic Plan and in allocation of resources in the budget.



Relevant Council goals and objectives and how these are addressed in this Asset Management Plan are:

Goal	Objective	How Goal and Objective are addressed in IAMP
To have well maintained infrastructure that satisfies the current demand and has the capacity to expand with future growth while having minimal impact on the environment	Maintain and improve the quality of stormwater assets with Council to achieve asset sustainability and be able to accommodate economic growth by 2021	Prepare and implement Asset Management Plans
That the impacts of community activities on the environment are effectively managed	Adoption of sustainable environmental practices	Improve quality stormwater by using and maintaining Gross Pollutant Traps (GPT's) before stormwater is released into Dumaresq Creek

Council Goals and how these are Addressed in this Plan

Council will exercise its duty of care to ensure public safety is accordance with the Infrastructure Risk Management Plan prepared in conjunction with this AM Plan. Management of infrastructure risks is covered in Section 5.2.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Legislation	Requirement	
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local	
	governments including the preparation of a Long Term	
	Financial Plan supported by Asset Management Plans for	
	sustainable service delivery	
Water Management Act 2000	Water quality and retardation issues	
Protection of the Environment	GPT's and pollution of waterways with gross pollutants from	
Operations Act 1997	stormwater	
Catchment Management	Northern Rivers CMA as a stakeholder	
Authorities Act 2003		
Work Health and Safety Act 2012	Providing a healthy and safe work environment at all drainage	
	work sites	
Contaminated Land Management	Old Gas Works contaminated soil along Dumaresq Creek	
Act 1997	floodplain	

Legislative Requirements



3.3 Current Levels of Service

Council has defined service levels in two terms:

Community Levels of Service - measure how the community receives the service and whether Council is providing community value.

Community levels of service measures used in this Asset Management Plan are:

- Quality How good is the service?
- Function Does it meet users' needs?
- Capacity/Utilisation Is the service over or under used?

Technical Levels of Service - supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the Council undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- Operations the regular activities to provide services such as opening hours, cleaning frequency, mowing frequency, etc.
- Maintenance the activities necessary to retain assets as near as practicable to an appropriate service condition (eg. road patching, unsealed road grading, building and structure repairs),
- Renewal the activities that return the service capability of an asset up to that which it had originally (eg. frequency and cost of road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),
- Upgrade the activities to provide a higher level of service (eg. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (eg. a new library).

Council's current service level is to ensure that average annual rainfall runoff is diverted and/or captured without damage to property or infrastructure. Where nuisance flooding or inundation occurs as a result of average rainfall, a property protection plan for those specific localised areas is developed, which may then increase infrastructure capacity to rectify the problem.

Council does not aim to have the stormwater drainage network capacity, catering for a 1 in 50 or a 1 in 100 year event. These event issues are dealt with through the Council's Floodplain Management Plans.



3.4 Desired Levels of Service

At present, indications of desired levels of service are obtained from various sources including residents' feedback to Councillors and staff, service requests and correspondence. These requests are applied in accordance with the criteria described in Section 3.3 of this AM Plan.

4 Future Demand

4.1 Demand Drivers

Drivers affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecast

The present position and projections for demand drivers that may impact future service delivery and utilisation of assets are identified and documented in the following table.

4.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and utilisation of assets are shown in the following table:

Demand Drivers	Present Position	Projection	Impact on Services
Residential development	Stormwater is generally adequate for existing developments, however, some deficiencies have been identified	1% increase in population	Possible requirement to increase capacity of stormwater drainage assets as network is expanded
Commercial development	Stormwater is adequate for existing developments	Unknown	Unknown
Climate change	Stormwater is adequate for existing climatic conditions	Unknown	Unknown
Regulatory requirement to improve stormwater quality	Stormwater runoff water quality could be enhanced	Greater use of GPT's and other water cleaning devices	Greater operational expenses to maintain and clean additional water quality improving devices

Demand Drivers, Projections and Impact on Services



4.4 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include non-asset solutions, insuring against risks and managing failures.

Non-asset solutions focus on providing the required service without the need for the Council to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets to deteriorate beyond current service levels) or educating customers to accept appropriate asset failures⁴. Examples of non-asset solutions include providing services from existing infrastructure such as aquatic centres and libraries that may be in another Ccouncil area or public toilets provided in commercial premises.

Opportunities identified to date for demand management are shown in the following table. Further opportunities will be developed in future revisions of this Asset Management Plan.

Demand Driver	Impact on Services	Demand Management Plan
Residential development	Greater demand on stormwater drainage assets	Ensure existing infrastructure is working as efficiently as possible and upgrade when asset does not meet agreed service levels
Commercial Development	Greater demand on stormwater drainage assets	Ensure existing infrastructure is working as efficiently as possible and upgrade when asset does not meet agreed service levels
Climate Change	Possible greater demand on stormwater drainage assets	Monitor intensity and duration of rainfall events and compare with long term averages and identify assets that will require upgrading if required
Regulatory requirement to improve stormwater quality	Greater demand for Gross Pollutant Traps (GPT's) and other water quality improvement devices	Comply with any regulator requirements where required and where a budget exists to construct GPT's of other water polishing devices

Demand Management Plan Summary

4.5 Asset Programs to meet Demand

The new assets required to meet growth will be acquired free of cost from land developments and constructed/acquired by Council. New assets constructed/acquired by Council are discussed in Section 5.5. The cumulative value of new contributed and constructed asset values are summarised as follows:

⁴ IPWEA, 2011, IIMM, Table 3.4.1, p 3|58.



Upgrade and New Assets to meet Demand



Armidale Dumaresq - Upgrade & New Assets to meet Demand

Acquiring these new assets will commit Council to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs in Section 5.

5 Lifecycle Management Plan

The Lifecycle Management Plan details how Council plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while optimising life cycle costs.

5.1 **Background Data**

Physical Parameters 5.1.1

The assets covered by this Asset Management Plan are shown in the table on page 6. The majority of stormwater drainage current replacement costs are for pipes followed by pits. Armidale's stormwater pipes range in size from 150mm inter-allotment pipes through to large 1600mm trunk pipes. Pits include kerb inlet pit, manholes, wingwalls and drop inlet pits.

The age profile of the assets include in this AM Plan is shown on the following page. The Asset Register shows a large proportion of pipes built around 1972. This has been assumed as there is currently no data available for the year the stormwater assets prior to this year were constructed. Rectifying this data gap forms part of the improvement plan for the Stormwater Drainage Asset Management Plan.


Asset Age Profile



Armidale Dumaresq - Age Profile (Stormwater_S1_V1)

5.1.2 Asset Capacity and Performance

Council's services are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in the following table:

Location	Service Deficiency
Markham St (Kirkwood to north of Donnelly) - Stage 1	New pipes and associated infrastructure required, no existing drainage infrastructure
Markham St (north of Donnelly to JS Whan) - Stage 2	New pipes and associated infrastructure required, no existing drainage infrastructure
Erskine St (North St to Taylor) - Stage 1	Existing drainage infrastructure under capacity
Erskine St trunk (Taylor to Marsh St) - Stage 2	Existing drainage infrastructure under capacity
Erskine St trunk (Marsh St to Clover Ln) - Stage 3	Existing drainage infrastructure under capacity
GPT Marsh St (north side of Dumaresq Ck)	Large trunk pipe has no device to prevent gross pollutants from entering Dumaresq Ck

Known Service Performance Deficiencies



The above service deficiencies were identified from Webb McKeown Drainage Strategy 1996 and from observations during significant rainfall events. Accumulation of pollutants downstream of Marsh Street indicates a need for a GPT.

5.1.3 Asset Condition

Condition is monitored using information from maintenance crews and CCTV of selected stormwater drainage pipes.

Asset Condition Profile

The condition profile of Council's assets is shown in below.

(Stormwater_S1_V1) \$35,000 \$30,000 \$25,000 CRC \$,000) \$20,000 \$15,000 \$10,000 \$5,000 \$0 1 2 3 4 5 Condition

Armidale Dumaresq - Asset Condition Profile

Condition is measured using a 1 - 5 grading system⁵ as detailed in the table below.

⁵ IPWEA, 2011, IIMM, Sec 2.5.4, p 2|79.



Simple	Condition	Grading	Model
--------	-----------	---------	-------

Condition Grading	Description of Condition		
1	Very Good Condition: Only planned maintenance required		
2	Good Condition: Minor maintenance required plus planned maintenance		
3	Fair Condition: Significant maintenance required		
4	Poor Condition: Significant renewal/upgrade required		
5	Very Poor Condition: The asset is physically unsound and/or not performing as originally intended		

5.1.4 Asset Valuations

Assets were last valued in 2013 and recorded in the Asset Register in 2013 as shown below. Assets were valued at the current replacement cost, at that time.



Useful lives were reviewed in 2013 by undertaking condition assessment of a selection of stormwater assets.

Key assumptions made in preparing the valuations were:

- That useful life is 80 years for stormwater assets
- Where the construction year for a particular asset is unavailable, then the construction year was a function of condition which was assumed to be condition 3 (based on the selection of stormwater assets condition assessed)
- Unit rates used for replacement calculations were based on best available information, using both internal and external prices to undertake the work associated with replacing the stormwater asset
- Remaining life predictions for stormwater drainage assets are based on condition assessments of a representative sample of similar assets

Various ratios of asset consumption and expenditure have been prepared to help guide and gauge asset management performance and trends over time, as follows:

Rate of Annual Asset Consumption (Depreciation/Depreciable Amount)	1.4%	
Rate of Annual Asset Renewal	0.2%	

⁶ Also reported as Written Down Current Replacement Cost (WDCRC).



(Capital Renewal exp/Depreciable Amount)

Rate of Annual Asset Upgrade/New	0.1%
(Capital Upgrade exp/Depreciable Amount)	
Rate of Annual Asset Upgrade/New (Including Contributed Assets)	0.1%

In 2014 Council plans to renew assets at 11.8% of the rate they are being consumed and will be increasing its asset stock by 0.1% in the year.

5.1.5 Historical Data

This section forms part of the Stormwater Drainage Asset Management Plan.

5.2 Infrastructure Risk Management Plan

An assessment of risks⁷ associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial shock' to the organisation. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the Infrastructure Risk Management Plan, together with the estimated residual risk after the selected treatment plan is operational are summarised in the table below. These risks are reported to management and Council. At this stage no risks have been identified as 'very high' and only one risk has be identified as 'high', however this will be examined with greater detail during the improvement phase of the Stormwater Drainage Asset Management Plan.

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Trunk Pipes & culverts	Pipe collapse	Н	Continue to inspect condition of pipes and renew where necessary. Implement a CCTV program to condition assess pipes where condition data is missing.	Slight risk of collapse which would lead to property flooding.	\$20,000/annum

Critical Risks and Treatment Plans

Note * The residual risk is the risk remaining after the selected risk treatment plan is operational.

⁷ Armidale Dumaresq Council Stormwater Drainage Infrastructure Risk Management Plan



5.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, eg street sweeping, grass mowing and street lighting.

Routine maintenance is the regular on-going work necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

5.3.1 Operations and Maintenance Plan

Operations activities affect service levels including quality and function through street sweeping and grass mowing frequency, intensity and spacing of street lights and cleaning frequency and opening hours of building and other facilities.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating, eg. road patching but excluding rehabilitation or renewal. Maintenance may be classified into reactive, planned and specific maintenance work activities.

Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned maintenance is repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Specific maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacing air conditioning units, etc. This work falls below the capital/maintenance threshold but may require a specific budget allocation.

Actual past maintenance expenditure is shown in the table below.

Maintenance Expenditure Trends

Year	Maintenance Expenditure	
	Planned and Specific	Unplanned
2013	\$238,000	\$24,000

Planned maintenance work is currently 91% of total maintenance expenditure.

Maintenance expenditure levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance expenditure levels are such that will result in a lesser level of service, the service consequences and service risks have been identified and service consequences highlighted in this AM Plan and service risks considered in the Infrastructure Risk Management Plan.



Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement.

5.3.2 Operations and Maintenance Strategies

Council will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner,
- Undertaking maintenance activities through a planned maintenance system to reduce maintenance costs and improve maintenance outcomes. Undertake cost-benefit analysis to determine the most cost-effective split between planned and unplanned maintenance activities (50 - 70% planned desirable as measured by cost),
- Maintain a current Infrastructure Risk Register for assets and present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and Residual risks after treatment, to management and Council,
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs,
- Review asset utilisation to identify under utilised assets and over utilised assets and appropriate remedies and customer demand management options,
- Maintain a current hierarchy of critical assets and required operations and maintenance activities,
- Develop and regularly review appropriate emergency response capability,
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used.

Asset Hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

Critical Assets

Critical assets are those assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, organisations can target and refine investigative activities, maintenance plans and capital expenditure plans at the appropriate time.

Operations and maintenances activities may be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc.



Standards and Specifications

Maintenance work is carried out in accordance with the Agreed Stormwater Drainage Service Levels.

5.3.3 Summary of Future Operations and Maintenance Expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in in the following figure. Note: costs are shown in 2013 dollar values (ie. current values).

Projected Operations and Maintenance Expenditure

Deferred maintenance, ie. works that are identified for maintenance and unable to be funded are to be included in the risk assessment and analysis in the Infrastructure Risk Management Plan.

Maintenance is funded from the operating budget, where available which is further discussed in Section 6.2.

5.4 Renewal/Replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original or lesser required service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

5.4.1 Renewal Plan

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average *network renewals* plus *defect repairs* in the *Renewal Plan* and *Defect Repair Plan* worksheets on the 'Expenditure template'.

Method 1 was used for this Asset Management Plan.

The useful lives of assets used to develop projected asset renewal expenditures are shown the table below. Asset useful lives were last reviewed in 2013⁸

Useful Lives of Assets

Asset (Sub)Category	Useful life
Pipes	80 years
Pits	80 years
Culverts	80 years
Cannels	80 years
Gross Pollutant Traps (GPT's)	80 years

⁸ Drainage Revaluation Study (Finnegan 2011)



5.4.2 Renewal and Replacement Strategies

Council will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner,
- Undertaking project scoping for all capital renewal and replacement projects to identify:
 - the service delivery 'deficiency', present risk and optimum time for renewal/replacement,
 - the project objectives to rectify the deficiency,
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
 - evaluate the options against evaluation criteria adopted by Council, and
 - select the best option to be included in capital renewal programs.
- Using 'low cost' renewal methods (cost of renewal is less than replacement) wherever possible,
- Maintain a current Infrastructure Risk Register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council,
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs,
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required ,
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

Renewal Ranking Criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (eg. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (eg. roughness of a road).⁹

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a high utilisation and subsequent impact on users would be greatest,
- The total value represents the greatest net value to the organisation,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Where replacement with modern equivalent assets would yield material savings.¹⁰

⁹ IPWEA, 2011, IIMM, Sec 3.4.4, p 3|60.

¹⁰ Based on IPWEA, 2011, IIMM, Sec 3.4.5, p 3 66.



The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in the following table:

Criteria	Weighting
Available budget	30
Condition	30
Risk	20
Regulatory	20
Total	100%

Renewal and Replacement Priority Ranking Criteria

Renewal and Replacement Standards

Renewal work is carried out in accordance with the following standards and specifications:

- ADC Development Control Plan
- Engineering Code
- Plumbing and Drainage Code
- Agreed Stormwater Drainage Service Levels.

5.4.3 Summary of Future Renewal and Replacement Expenditure

Projected future renewal and replacement expenditures are forecast to increase over time as the asset stock increases from growth. The expenditure is summarised in the figure below. Note: costs are shown in 2013 dollar values, ie. current values.

The projected capital renewal and replacement program is shown in Appendix A.

Projected Capital Renewal and Replacement Expenditure

Deferred renewal and replacement, ie. those assets identified for renewal and/or replacement and not scheduled in capital works programs are to be included in the risk analysis process in the Risk Management Plan.

Renewals and replacement expenditure in the Council's capital works program will be accommodated in Council's Long Term Financial Plan which is further discussed in Section 6.2.



5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development. These assets from growth are considered in Section 3.4.

5.5.1 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed below.

Criteria	Weighting		
CBD drainage	40		
Residential drainage	30		
Industrial drainage	20		
Public open space drainage (Parks)	10		
Total	100%		

New Assets Priority Ranking Criteria

5.5.2 Capital Investment Strategies

Council will plan capital upgrade and new projects to meet level of service objectives by:

- Planning and scheduling capital upgrade and new projects to deliver the defined level of service in the most efficient manner,
- Undertake project scoping for all capital upgrade/new projects to identify:
 - the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset,
 - the project objectives to rectify the deficiency including value management for major projects,
 - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
 - management of risks associated with alternative options,
 - and evaluate the options against evaluation criteria adopted by Council, and
 - select the best option to be included in capital upgrade/new programs,
- Review current and required skills base and implement training and development to meet required construction and project management needs,
- Review management of capital project management activities to ensure Council is obtaining best value for resources used.

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.



5.5.3 Summary of Future Upgrade/New Assets Expenditure

Projected upgrade/new asset expenditures are summarised in the following figure. The projected upgrade/new capital works program is shown in Appendix B. Note: costs are shown in 2013 dollar values, ie. current values.

Projected Capital Upgrade/New Asset Expenditure

Expenditure on new assets and services in Council's capital works program will be accommodated in Council's Long Term Financial Plan which is further discussed in Section 6.2.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in the following table, together with estimated annual savings from not having to fund operations and maintenance of the assets. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Any revenue gained from asset disposals is accommodated in Council's Long Term Financial Plan.

Where cashflow projections from asset disposals are not available, these will be developed in future revisions of this Asset Management Plan.

Asset	Reason for Disposal	Timing	Disposal Expenditure	Operations & Maintenance Annual Savings
Old GPT trash racks	Upgrade to centrifugal units	Within 5 years	Metal recycling (~200/T)	Minimal as centrifugal unit will still require servicing

Assets Identified for Disposal

6 Plan Improvement and Monitoring

6.1 Status of Asset Management Practices

6.1.1 Accounting and Financial Systems

Council uses the Technology One Suite of applications for its financial and asset accounting systems. The three (3) major applications are:

- Finance 1 running a General Ledger, Project Ledger, Fleet ledger and Work order ledger
- Works and Assets managing the project and work order interface to the asset database
- Enterprise Asset Management providing detailed work order and performance data.



Accountabilities for Financial Systems

The Chief Financial and Information Officer is responsible for all financial systems within the organisation and has a team of staff to assist in the process which is also subject to internal and external audits.

Accounting Standards and Regulations

All financial data is prepared and maintained in accordance with:

- The Local Government Act (as amended) and the regulations thereunder
- The Local Government Code of Accounting Practice and Financial Reporting
- The Australian Accounting Standards and professional pronouncements

Capital/Maintenance Threshold

Council's capital threshold is \$5,000. Costs under this will not be capitalised unless they are part of a project which has expenditure exceeding the \$5,000 figure.

Required changes to accounting financial systems arising from this AM Plan - none are identified at this stage.

6.1.2 Asset Management System

The asset management system is a basic spreadsheet. However, Council is in the process of setting up data in an "Enterprise Asset Management" system.

Asset Registers

Spreadsheet for stormwater assets derived from GIS Oracle database.

Linkage from Asset Management to Financial System

Tenuous at the best as only linked through work orders. This will be improved with the implementation of the Enterprise Asset Management System in 2014.

Accountabilities for Asset Management System and Data Maintenance

Section Managers

Required changes to asset management system arising from this AM Plan.

Development of a business system that easily allows any changes to the status of an asset, ie. renewals to be easily identified for the purposes of keeping the stormwater drainage asset Management Plan up to date and accurate.



6.2 Improvement Program

The Asset Management Improvement Plan generated from this Asset Management Plan is shown below.

Task	Task	Responsibility	Resources	Timeline
No			Required	
1	Refine useful life assumptions	Mgr Waste & Drainage	Staff	Within 24 months
2	Refine remaining life assumption	Mgr Waste & Drainage	Staff	Within 24 months
3	Validate units rates use to determine current replacement costs	Mgr Waste & Drainage	Staff	Within 24 months
4	Identify stormwater assets for disposal	Superintendent Waste & Drainage	Staff	Within 24 months
5	Collate historical data for stormwater drainage assets	Superintendent Waste & Drainage	Staff	Within 24 months

Improvement Plan

6.3 Monitoring and Review Procedures

This Asset Management Plan will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

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 Council's Long Term Financial Plan.

The AM Plan has a life of four (4) years (Council election cycle) and is due for complete revision and updating within 12 months of each Council election.

6.4 **Performance Measures**

The effectiveness of the Asset Management Plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this Asset Management Plan are incorporated into Council's Long Term Financial Plan,
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the global works program trends provided by the Asset Management Plan,
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Council's Strategic Plan and associated plans,
- The Asset Renewal Funding Ratio achieving the target of 0.8- 1.0.



7 Financial Summary

This section contains the financial requirements resulting from all the information presented in the previous sections of this Asset Management Plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

7.1 **Financial Statements and Projections**

The financial projections are shown in the following figure for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note: costs are shown in 2013 dollar values, ie. current values.



Projected Operating and Capital Expenditure







7.1.1 Sustainability of Service Delivery

There are four key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the asset renewal funding ratio, long term life cycle costs/expenditures and medium term projected/budgeted expenditures over five and ten years of the planning period.



Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹¹ over the long term should be between 80% an 100%

The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years, Council is forecasting that it will have 50% of the funds required for the optimal renewal and replacement of its assets.

Long Term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this Asset Management Plan is \$717,000 per year (average operations and maintenance expenditure plus depreciation expense projected over ten years).

Life cycle costs can be compared to life cycle expenditure to give an initial indicator of affordability of projected service levels when considered with age profiles. Life cycle expenditure includes operations, maintenance and capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure over the ten year planning period is \$427,000 per year (average operations and maintenance plus capital renewal budgeted expenditure in LTFP over ten years).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap. The life cycle gap for services covered by this Asset Management Plan is 7% per annum. Life cycle expenditure is 61% of life cycle costs.

The life cycle costs and life cycle expenditure comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

The extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the Asset Management Plans and Long Term Financial Plan.

Medium Term – Five to Ten Year Financial Planning Period

This Asset Management Plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed level of service to the community over a ten year period. This provides input into ten year financial and funding plans aimed at providing the required services in a sustainable manner.

These projected expenditures may be compared to budgeted expenditures in the ten year period to identify any funding shortfall. In a core Asset Management Plan, a gap is generally due to increasing asset renewals for ageing assets.

¹¹ AIFMG, 2009, Financial Sustainability Indicator 8, Sec 2.6, p 2.18



The projected operations, maintenance and capital renewal expenditure required over the ten year planning period is \$717,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$427,000, on average, per year giving a ten year funding shortfall of \$290,000 per year. This indicates that Council expects to have 61% of the projected expenditures needed to provide the services documented in the Asset Management Plan.

Asset Management Financial Indicators

The following figure shows the asset management financial indicators over the ten year planning period and for the long term life cycle.



Asset Management Financial Indicators

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the Asset Management Plan and ideally over the ten year life of the Long Term Financial Plan.

The following figure shows the projected asset renewal and replacement expenditure over the 20 years of the AM Plan. The projected asset renewal and replacement expenditure is compared to renewal and replacement expenditure in the capital works program, which is accommodated in the Long Term Financial Plan.



Projected and LTFP Budgeted Renewal Expenditure

Armidale Dumaresq - Projected & LTFP Budgeted Renewal Expenditure (Stormwater_S3_V1)



The following table shows the shortfall between projected renewal and replacement expenditures and expenditure accommodated in the Long Term Financial Plan. Budget expenditures accommodated in the Long Term Financial Plan or extrapolated from current budgets are shown in Appendix C.



STORMWATER DRAINAGE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	180	77	128	72	148	72	115	151	164	118	1,225
Total Program Summary in \$'000	Upgrades =	35	581	1,050	80	0	80	0	0	0	0	1,826
	Annual Total =	215	658	1,178	152	148	152	115	151	164	118	3,051
RENEWALS												
CCTV Stages		30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	300,000
375mm RCP Pipe		75,000	-	-	41,850	20,925	41,850	-	-	-	-	179,625
450mm RCP Pipe		75,000	-	56,300	-	25,335	-	-	-	84,450	-	241,085
525mm RCP Pipe		-	-	-	-	-	-	17,390	-	-	-	17,390
Kerb Inlet Pits		-	-	-	-	30,000	-	20,000	30,000	-	30,000	110,000
Junction/Manholes		-	42,000	42,000	-	42,000	-	42,000	42,000	-	42,000	252,000
Gross Pollutant Trap (Trash Rack)		-	-	-	-	-	-	-	-	-	10,000	10,000
V-Channel (Concrete)		-	5,500	-	-	-	-	5,500	-	-	5,500	16,500
Culvert Box Type		-	-	-	-	-	-	-	49,362	49,362	-	98,724
Total Renewals		180,000	77,500	128,300	71,850	148,260	71,850	114,890	151,362	163,812	117,500	1,225,324
NEW WORKS & UPGRADES												
Markham Street Drainage Upgrade		-	-	650,000	-	-	-	-	-	-	-	650,000
Markham Street Drainage Upgrade Stage 2		-	-	400,000	-	-	-	-	-	-	-	400,000
Centennial Property Protection		35,000	-	-	-	-	-	-	-	-	-	35,000
Erskine Street Table Drain		-	55,000	-	-	-	-	-	-	-	-	55,000
Erskine Street Trunk Main Stages		-	525,511	-	-	-	-	-	-	-	-	525,511
GPT Marsh Street		-	-	-	80,000	-	-	-	-	-	-	80,000
GPT Niagara Street		-	-	-	-	-	80,000	-	-	-	-	80,000
Total New Works & Upgrades		35,000	580,511	1,050,000	80,000	-	80,000	-	-	-	-	1,825,511

Summary of Projected 10 Year Renewal and Upgrading Works without SRV



STORMWATER DRAINAGE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	327	376	376	374	375	374	371	370	371	178	3,492
Total Program Summary in \$'000	Upgrades =	35	580	1,050	430	200	260	160	0	0	0	2,715
	Annual Total =	362	956	1,426	804	575	634	531	370	371	178	6,207
								•				
RENEWALS												
CCTV Stages		30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	300,000
300mm RCP Pipe		17,025	17,025	17,025	8,513	8,513	17,025	8,512	-	-	-	93,638
375mm RCP Pipe		125,550	156,938	146,475	146,475	125,550	104,625	115,088	94,163	94,163	-	1,109,027
450mm RCP Pipe		112,600	84,450	56,300	42,225	42,225	112,600	112,600	84,450	84,450	-	731,900
525mm RCP Pipe		-	-	34,780	34,780	17,390	17,390	17,390	17,390	17,390	-	156,510
600mm RCP Pipe		-	-	20,030	40,060	20,030	20,030	20,030	20,030	20,030	-	160,240
Kerb Inlet Pits		-	30,000	30,000	30,000	30,000	20,000	20,000	30,000	30,000	30,000	250,000
Junction/Manholes		42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	420,000
Gross Pollutant Trap (Trash Rack)		-	10,000	-	-	-	-	-	-	-	10,000	20,000
Gross Pollutant Trap (Cyclonic)		-	-	-	-	60,000	10,000	-	-	-	60,000	130,000
V-Channel (Concrete)		-	5,500	-	-	-	-	5,500	2,750	2,750	5,500	22,000
Culvert Box Type		-	-	-	-	-	-	-	49,362	49,362	-	98,724
		327,175	375,913	376,610	374,053	375,708	373,670	371,120	370,145	370,145	177,500	3,492,039
NEW WORKS & UPGRADES												
Markham Street Drainage Upgrade		-	-	650,000	-	-	-	-	-	-	-	650,000
Markham Street Drainage Upgrade Stage 2		-	-	400,000	-	-	-	-	-	-	-	400,000
Centennial Property Protection		35,000	-	-	-	-	-	-	-	-	-	35,000
Erskine Street Trunk Main Upgrade Stage 1			525,511	-	-	-	-	-	-	-	-	525,511

Summary of Projected 10 Year Renewal and Upgrading Works with SRV of 10%



STORMWATER DRAINAGE	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Erskine Street Table Drain	-	55,000	-	-	-	-	-	-	-	-	55,000
Allingham Street	-	-	-	270,000	-	-	-	-	-	-	270,000
GPT Marsh Street	-	-	-	80,000	-	-	-	-	-	-	80,000
GPT Cookes Road	-	-	-	80,000	-	-	-	-	-	-	80,000
GPT Allingham Street	-	-	-	-	100,000	-	-	-	-	-	100,000
GPT Markham Street	-	-	-	-	100,000	-	-	-	-	-	100,000
GPT Niagara Street	-	-	-	-	-	80,000	-	-	-	-	80,000
GPT Taylor Street	-	-	-	-	-	80,000	-	-	-	-	80,000
GPT Butler Street	-	-	-	-	-	100,000	-	-	-	-	100,000
GPT Howard Place	-	-	-	-	-	-	80,000	-	-	-	80,000
GPT Centennial	-	-	-	-	-	-	80,000	-	-	-	80,000
	35,000	580,511	1,050,000	430,000	200,000	260,000	160,000	-	-	-	2,715,511



Year End	Projected	LTFP	Renewal Financing	Cumulative Shortfall(\$'000)
June 30	Renewals	Renewal Budget	Shortfall (\$'000)	(- gap, + surplus)
	(\$'000)	(\$'000)	(- gap, + surplus)	
2014	\$717	\$427	-\$290	-\$580
2015	\$717	\$427	-\$290	-\$870
2016	\$717	\$427	-\$290	-\$1,160
2017	\$717	\$427	-\$290	-\$1,450
2018	\$717	\$427	-\$290	-\$1,740
2019	\$717	\$427	-\$290	-\$2,030
2020	\$717	\$427	-\$290	-\$2,320
2021	\$717	\$427	-\$290	-\$2,610
2022	\$717	\$427	-\$290	-\$2,900
2023	\$717	\$427	-\$290	-\$3,190
2024	\$717	\$427	-\$290	-\$3,480

Projected and LTFP Budgeted Renewals and Financing Shortfall

Note: A negative shortfall indicates a financing gap, a positive shortfall indicates a surplus for that year.

Providing services in a sustainable manner will require matching of projected asset renewal and replacement expenditure to meet agreed service levels with the corresponding capital works program accommodated in the Long Term Financial Plan.

A gap between projected asset renewal/replacement expenditure and amounts accommodated in the Long Term Financial Plan indicates that further work is required on reviewing service levels in the AM Plan (including possibly revising the Long Term Financial Plan) before finalising the Asset Management Plan to manage required service levels and funding to eliminate any funding gap.

Council will manage the gap by developing this Asset Management Plan to provide guidance on future service levels and resources required to provide these services and review future services, service levels and costs with the community.



7.1.2 Projected Expenditures for Long Term Financial Plan

The following table shows the projected expenditures for the ten year Long Term Financial Plan. Note: costs are shown in 2013 dollar values, ie. current values.

	Operations	Maintenance	Projected	Capital	
Year	in \$,000	in \$,000	Capital Renewal	Upgrade/New	Disposals
2014/15	50	327	\$340.00	\$35	\$0.00
2015/16	50	376	\$340.00	\$580	\$0.00
2016/17	50	376	\$340.00	\$1,050	\$0.00
2017/18	50	374	\$340.00	\$430	\$0.00
2018/19	50	375	\$340.00	\$200	\$0.00
2019/20	50	374	\$340.00	\$260	\$0.00
2020/21	50	371	\$340.00	\$160	\$0.00
2021/22	50	370	\$340.00	\$0	\$0.00
2022/23	50	371	\$340.00	\$0	\$0.00
2023/24	50	178	\$340.00	\$0	\$0.00

Projected Expenditures for Long Term Financial Plan (\$000) 10% SRV (Not Including Rate Pegging)

7.2 Funding Strategy

After reviewing service levels as appropriate to ensure ongoing financial sustainability, projected expenditures identified in Section 7.1.2 will be accommodated in the Council's 10 Year Long Term Financial Plan.

7.3 Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan and risks that these may change are shown in the following table on the next page.



Key Assumptions made in AM Plan and Risks of Change

Key Assumptions	Risks of Change to Assumptions
Useful Life	If useful life has been overestimated then annual depreciation expense will
	increase
Remaining Life	If remaining life has been overestimated then renewal programs will need to
	be implemented sooner
Unit Rates	Unit rates impact on replacement costs and annual depreciation expenses.
	Improving the accuracy of our unit rates will increase the certainty we have
	with our financial forecasting
Condition Rating	Improving the accuracy of our condition ratings will increase the certainty of
	our renewal programs and financial forecasting

7.4 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale¹² in accordance with the following table.

Data Confidence Grading System

Confidence Grade	Description
A Highly Reliable	Data based on sound records, procedures, investigations and analysis,
	documented properly and recognised as the best method of assessment.
	Dataset is complete and estimated to be accurate ± 2%.
B Reliable	Data based on sound records, procedures, investigations and analysis,
	documented properly but has minor shortcomings, for example some of the
	data is old, some documentation is missing and/or reliance is placed on
	unconfirmed reports or some extrapolation. Dataset is complete and
	estimated to be accurate ± 10%.
C Uncertain	Data based on sound records, procedures, investigations and analysis which is
	incomplete or unsupported, or extrapolated from a limited sample for which
	grade A or B data are available. Dataset is substantially complete but up to
	50% is extrapolated data and accuracy estimated ± 25%.
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and
	analysis. Dataset may not be fully complete and most data is estimated or
	extrapolated. Accuracy ± 40%.
E Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in the following table on the next page.

¹² IPWEA, 2011, IIMM, Table 2.4.6, p 2 59.



Data	Confidence Assessment	Comment
Demand Drivers	В	Some improvement required
Growth Projections	В	More reliable the closer the projections are to
		present day
Operations	A	Reliable
Expenditures		
Maintenance	В	Less reliable than Operations expenditure
Expenditures		
Projected Renewal	С	More data required on asset condition to
Exps.		determine renewal expenditure
- Asset Values		
- Asset Residual	В	As we become more familiar with new
Values		technology (ie. relining) we should be able to
		predict residual values
- Asset Useful Lives	В	Civil structures are usually long lived however
		our assumption of 80 years my need refining
- Condition Modelling	D	More work required
- Network Renewals	С	Some uncertainty as not all assets have been
		condition assessed
- Defect Repairs	С	Some uncertainty as not all assets have been
		condition assessed
Upgrade/New	В	Have a generally good understanding where
Expenditures		new assets are required
Disposal Expenditures	E	More work required

Data Confidence Assessment for Data used in AM Plan

Over all data sources the data confidence is assessed as B - confidence level for data used in the preparation of this AM Plan.

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8 References

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/IIMM</u>.

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/namsplus</u>.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/AIFMG</u>.

IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au/IIMM</u>.

Armidale Dumaresq Council Special Rate Variation Asset Replacement Assessment - 2013; J Roorda and Assoc.





9 Appendices

- Appendix A Projected 10 Year Capital Renewal and Replacement Works Program
- Appendix B Projected 10 Year Capital Upgrade/New Works Program
- Appendix C Abbreviations
- Appendix D Glossary



								0	
Projected Expenditure	2014	2015	2016	2017	2018	2019	2020	2021	2022
Capital Expenditure on	\$340.00	\$340.00	\$340.00	\$340.00	\$340.00	\$340.00	\$340.00	\$340.00	\$340.00
Renewal/Replacement of existing assets									
Capital Expenditure on Upgrade/New	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00
assets									
Operations and Maintenance of existing	\$377.00	\$377.00	\$377.00	\$377.00	\$377.00	\$377.00	\$377.00	\$377.00	\$377.00
assets									
Operations and Maintenance of New	\$0.35	\$0.70	\$1.05	\$1.39	\$1.74	\$2.09	\$2.44	\$2.79	\$3.14
assets									
Operations and Maintenance of New	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
assets									

Appendix A Projected 10 Year Capital Renewal and Replacement Works Program

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Appendix B Projected Upgrade/Exp/New 10 Year Capital Works Program

Summary of	Drojected 1	N Vear	Renewal	and	Unaradina	Works	without	SRV
Summary Of	FIDJELLEU I	U Teur	Nellewu	unu	opyruuniy	VVUIKS	without	JNV

STORMWATER DRAINAGE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	180	77	128	72	148	72	115	151	164	118	1,225
Total Program Summary in \$'000	Upgrades =	35	581	1,050	80	0	80	0	0	0	0	1,826
	Annual Total =	215	658	1,178	152	148	152	115	151	164	118	3,051
RENEWALS												
CCTV Stages		30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	300,000
375mm RCP Pipe		75,000	-	-	41,850	20,925	41,850	-	-	-	-	179,625
450mm RCP Pipe		75,000	-	56,300	-	25,335	-	-	-	84,450	-	241,085
525mm RCP Pipe		-	-	-	-	-	-	17,390	-	-	-	17,390
Kerb Inlet Pits		-	-	-	-	30,000	-	20,000	30,000	-	30,000	110,000
Junction/Manholes		-	42,000	42,000	-	42,000	-	42,000	42,000	-	42,000	252,000
Gross Pollutant Trap (Trash Rack)		-	-	-	-	-	-	-	-	-	10,000	10,000
V-Channel (Concrete)		-	5,500	-	-	-	-	5,500	-	-	5,500	16,500
Culvert Box Type		-	-	-	-	-	-	-	49,362	49,362	-	98,724
Total Renewals		180,000	77,500	128,300	71,850	148,260	71,850	114,890	151,362	163,812	117,500	1,225,324
NEW WORKS & UPGRADES												
Markham Street Drainage Upgrade		-	-	650,000	-	-	-	-	-	-	-	650,000
Markham Street Drainage Upgrade Stage 2		-	-	400,000	-	-	-	-	-	-	-	400,000
Centennial Property Protection		35,000	-	-	-	-	-	-	-	-	-	35,000
Erskine Street Table Drain		-	55,000	-	-	-	-	-	-	-	-	55,000
Erskine Street Trunk Main Stages		-	525,511	-	-	-	-	-	-	-	-	525,511
GPT Marsh Street		-	-	-	80,000	-	-	-	-	-	-	80,000
GPT Niagara Street		-	-	-	-	-	80,000	-	-	-	-	80,000



1												
Total New Works & Upgrades	35,000	580,511	1,050,000	80,000	-	80,000	-	-	-	-	1,825,511	



STORMWATER DRAINAGE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	327	376	376	374	375	374	371	370	371	178	3,492
Total Program Summary in \$'000	Upgrades =	35	580	1,050	430	200	260	160	0	0	0	2,715
	Annual Total =	362	956	1,426	804	575	634	531	370	371	178	6,207
RENEWALS												
CCTV Stages		30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	300,000
300mm RCP Pipe		17,025	17,025	17,025	8,513	8,513	17,025	8,512	-	-	-	93,638
375mm RCP Pipe		125,550	156,938	146,475	146,475	125,550	104,625	115,088	94,163	94,163	-	1,109,027
450mm RCP Pipe		112,600	84,450	56,300	42,225	42,225	112,600	112,600	84,450	84,450	-	731,900
525mm RCP Pipe		-	-	34,780	34,780	17,390	17,390	17,390	17,390	17,390	-	156,510
600mm RCP Pipe		-	-	20,030	40,060	20,030	20,030	20,030	20,030	20,030	-	160,240
Kerb Inlet Pits		-	30,000	30,000	30,000	30,000	20,000	20,000	30,000	30,000	30,000	250,000
Junction/Manholes		42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	420,000
Gross Pollutant Trap (Trash Rack)		-	10,000	-	-	-	-	-	-	-	10,000	20,000
Gross Pollutant Trap (Cyclonic)		-	-	-	-	60,000	10,000	-	-	-	60,000	130,000
V-Channel (Concrete)		-	5,500	-	-	-	-	5,500	2,750	2,750	5,500	22,000
Culvert Box Type		-	-	-	-	-	-	-	49,362	49,362	-	98,724
		327,175	375,913	376,610	374,053	375,708	373,670	371,120	370,145	370,145	177,500	3,492,039
NEW WORKS & UPGRADES												
Markham Street Drainage Upgrade		-	-	650,000	-	-	-	-	-	-	-	650,000
Markham Street Drainage Upgrade Stage 2		-	-	400,000	-	-	-	-	-	-	-	400,000
Centennial Property Protection		35,000	-	-	-	-	-	-	-	-	-	35,000
Erskine Street Trunk Main Upgrade Stage 1			525,511	-	-	-	-	-	-	-	-	525,511

Summary of Projected 10 Year Renewal and Upgrading Works with SRV of 10%



STORMWATER DRAINAGE	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Erskine Street Table Drain	-	55,000	-	-	-	-	-	-	-	-	55,000
Allingham Street	-	-	-	270,000	-	-	-	-	-	-	270,000
GPT Marsh Street	-	-	-	80,000	-	-	-	-	-	-	80,000
GPT Cookes Road	-	-	-	80,000	-	-	-	-	-	-	80,000
GPT Allingham Street	-	-	-	-	100,000	-	-	-	-	-	100,000
GPT Markham Street	-	-	-	-	100,000	-	-	-	-	-	100,000
GPT Niagara Street	-	-	-	-	-	80,000	-	-	-	-	80,000
GPT Taylor Street	-	-	-	-	-	80,000	-	-	-	-	80,000
GPT Butler Street	-	-	-	-	-	100,000	-	-	-	-	100,000
GPT Howard Place	-	-	-	-	-	-	80,000	-	-	-	80,000
GPT Centennial		-	-	-	-	-	80,000	-	-	-	80,000
	35,000	580,511	1,050,000	430,000	200,000	260,000	160,000	-	-	-	2,715,511





Appendix C Abbreviations

AAAC	Average annual asset consumption
Glossary	Glossary
AM Plan	Asset management plan
ARI	Average recurrence interval
ASC	Annual service cost
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
DRC	Depreciated replacement cost
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life cycle cost
LCE	Life cycle expenditure
LTFP	Long term financial plan
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SoA	State of the assets
SS	Suspended solids
vph	Vehicles per hour
WDCRD	Written down current replacement cost



Appendix D Glossary

Annual service cost (ASC)

- Reporting actual cost The annual (accrual) cost of providing a service including operations, maintenance, depreciation, finance/opportunity and disposal costs less revenue.
- 2) For investment analysis and budgeting An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operations, maintenance, depreciation, finance/opportunity and disposal costs, less revenue.

Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

Asset management (AM)

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Asset renewal funding ratio

The ratio of the net present value of asset renewal funding accommodated over a 10 year period in a long term financial plan relative to the net present value of projected capital renewal expenditures identified in an Asset Management Plan for the same period [AIFMG Financial Sustainability Indicator No 8].

Average annual asset consumption (AAAC)*

The amount of an organisation's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life (or total future economic benefits/service potential) and totalled for each and every asset OR by dividing the carrying amount (depreciated replacement cost) by the remaining useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

Borrowings

A borrowing or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital expenditure - expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future operations and maintenance costs, because it increases the organisation's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.



Capital expenditure - new

Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

Capital expenditure - renewal

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Capital expenditure - upgrade

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the organisation's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals. Capital investment expenditure See capital expenditure definition

Capitalisation threshold

The value of expenditure on non-current assets above which the expenditure is recognised as capital expenditure and below which the expenditure is charged as an expense in the year of acquisition.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

Core asset management

Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision- making).

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes oneoff design and project management costs.

Critical assets

Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than noncritical assets.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Deferred maintenance

The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value.


Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital outlays.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Financing gap

A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets that contribute to meeting the needs of organisations or the need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no separate market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

(a) use in the production or supply of goods or services or for administrative purposes; or

(b) sale in the ordinary course of business.

Key performance indicator

A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

Level 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.

Life Cycle Cost*

- 1 **Total LCC** The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
- 2 Average LCC The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises average operations, maintenance expenditure plus asset consumption expense, represented by depreciation expense projected over 10 years. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.



Life cycle expenditure

The Life Cycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long term financial plan over 10 years. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.

Loans / borrowings

See borrowings.

Maintenance

All actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating, eg road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

• Planned maintenance

Repair work that is identified and managed through a maintenance management system (MMS). MMS 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.

Reactive maintenance

Unplanned repair work that is carried out in response to service requests and management/ supervisory directions.

Specific maintenance

Maintenance work to repair components or replace sub-components that needs to be identified as a specific maintenance item in the maintenance budget.

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 to maintain its level of security and integrity.

Maintenance expenditure*

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

The notion of materiality guides the margin of error acceptable, the degree of precision required and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

Modern equivalent asset

Assets that replicate what is in existence with the most cost-effective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques.

Net present value (NPV)

The value to the organisation of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows after deducting the value of the discounted total cash outflows arising from eg the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operations

Regular activities to provide services such as public health, safety and amenity, eg street sweeping, grass mowing and street lighting.

Operating expenditure

Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, eg power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is on the other hand included in operating expenses.



Operating expense

The gross outflow of economic benefits, being cash and non cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

Operating expenses

Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

Operations, maintenance and renewal financing ratio

Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Operations, maintenance and renewal gap

Difference between budgeted expenditures in a long term financial plan (or estimated future budgets in absence of a long term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).

Pavement management system (PMS)

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

The ratio of annual asset consumption relative to the depreciable amount of the assets. It measures the amount of the consumable parts of assets that are consumed in a period (depreciation) expressed as a percentage of the depreciable amount.

Rate of annual asset renewal*

The ratio of asset renewal and replacement expenditure relative to depreciable amount for a period. It measures whether assets are being replaced at the rate they are wearing out with capital renewal expenditure expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade/new*

A measure of the rate at which assets are being upgraded and expanded per annum with capital upgrade/new expenditure expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operations and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining useful life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining useful life is useful life.

Renewal

See capital renewal expenditure definition above.

Residual value

The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.



Service potential

The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/public sector to value assets, particularly those not producing a cash flow.

Service potential remaining

A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits. It is also a measure of the percentage of the asset's potential to provide services that are still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).

Specific maintenance

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Strategic longer term plan

A plan covering the term of office of councillors (4 years minimum) reflecting the needs of the community for the foreseeable future. It brings together the detailed requirements in the Council's longer-term plans such as the Asset Management Plan and the long-term financial plan. The plan is prepared in consultation with the community and details where the Council is at that point in time, where it wants to go, how it is going to get there, mechanisms for monitoring the achievement of the outcomes and how the plan will be resourced.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.

Value in use

The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits.

Source: IPWEA, 2009, Glossary

Additional and modified glossary items shown*



Transport Infrastructure Asset Management Plan 2014 to 2024





Applies to:	
Officer Responsible:	
Associated Documents:	Any listed below
Legislation:	Any listed below
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Reviewer:	David Steller
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1 Executive Summary

Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of Council's vision, mission, goals, objective and Integrated Planning and Reporting documents and processes.

Our vision is:

Excellent Lifestyle - Sustainable Growth

Our mission is

To provide Community leadership and Local Government Services in a sustainable and effective manner and

> To enhance our area's social, economic and environmental values

What Council Provides

Council provides a road network in partnership with the Roads & Maritime Services to provide safe and serviceable transport within Armidale Dumaresq Local Government Area. The following asset groups are covered by this plan:

- Urban roads and streets
- Rural sealed roads
- Rural unsealed roads
- Footpaths
- Kerbs and gutters
- Cycleways
- Bridges

What does it Cost?

There are two key indicators of cost to provide the road network:

- The life cycle cost being the average cost over the life cycle of the asset, and
- The total maintenance and capital renewal expenditure required to deliver existing service levels in the next 10 years covered by Council's Long Term Financial Plan.

The life cycle cost to provide the road network service is

estimated at \$6.575 million per annum. Based on the depreciation value of the asset class.

To calculate a sustainability index, the total maintenance and capital renewal expenditure required to deliver the desired levels of service has been used.

The total estimated maintenance (\$2.4 million per annum average) and capital renewal expenditure (\$1.69 million per annum average) is required to provide the road network service the in the next 10 years.

Council's average annual maintenance and capital renewal expenditure for the Asset Management Plan is \$4.09 million, giving a 10 year sustainability index of 0.84. This index assumes that funding for roads to recovery continues at historical levels and that Council can obtain alternative funding for the reclassification of regional roads. Without this funding the current renewal gap will increase by another \$1mill the index drops significantly to less than 50%. The LTFP has taken a conservative view and not reflected an continuation of \$800k in RTR grants.

Plans for the Future

Council plans to operate and maintain the road network to achieve the following strategic objectives:

- 1 Ensure the road network is maintained at a safe and functional standard as set out in this Asset Management Plan.
- 2 Preserve the road network assets.

What we will do

By using this Plan as a framework, Council intends to carry out works and services which enable the operation, maintenance and renewal of roads, bridges, footpaths, kerb and gutter and cycleways to meet the levels of service set by Council with matching funding provided in annual budgets.

What we cannot do

Council does not have access to sufficient funding to provide all services at the desired service levels or to provide new services in addition to those listed in this Plan.



What are we doing?

In 2014 Council intended to apply to IPART for a 10 % special rate variation (SRV), which would have been applied over the next seven years, in order to increase its rate income to cover the cost shortfall of renewing critical assets and infrastructure.

An extensive community consultation process took place to address the infrastructure renewal cost to income shortfall.

The proposals promoted to the community contain three scenarios:

Scenario 1: increase rates by the normal rate pegging increase.

Scenario 2: increase rates by a 20% upfront special rate variation for 7 years.

Scenario 3: increase rates by 10% per year for two years.

In February 2014 Council resolved to apply to IPART for a 10% (plus rate peg) special rate variation over seven years. This plan has been adjusted to meet that change.

Currently Council's asset renewal ratio has declined from 73% to 48% over four (4) years. This has developed due to improved asset management data, asset revaluations and increased cost of renewals.

Currently Council is under-funding its asset renewals by \$4,631,000. The SRV is intended to improve this situation, however, Council will also need to review service levels and consolidate replacement strategies to get to a long term sustainable position.

Measuring our Performance

Quality

Road assets will be maintained in a usable and safe condition. Defects found or reported that are outside

our service standard will be repaired. See our maintenance response service levels for details of defect prioritisation and response time.

Function

Our intent is that an appropriate road network is maintained in partnership with other levels of government and stakeholders to provide safe and efficient travel to road users.

Road network asset attributes will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety. We need to ensure the following key functional objectives are met:

- Optimise traffic flow throughout the road network to maximise community benefits.
- Minimise accident potential for all road users within the road network.
- Provide clear and safe traffic guidance throughout the road network.

Safety

We inspect the road network regularly and prioritise and repair defects in accordance with our inspection schedule to ensure they are safe.

The Next Steps

This actions resulting from this Asset Management Plan are:

- Align capital works programs with the results from data obtained to produce this plan.
- Integration with Council's long term financial planning.
- Provide improvements to Asset Management Planning and decision-making.



2 Introduction

2.1 Background

This Asset Management Plan demonstrates responsive management of assets (and services provided from assets), compliance with regulatory requirements and to communicate funding required to provide the required levels of service.

The Asset Management Plan is to be read with the following associated planning documents:

- Council's Community Strategic Plan 2013-2028 and Integrated Planning and Reporting Operational and Delivery Plans
- Pedestrian Access Mobility Plan (PAMP) (currently being reviewed)
- Armidale Bicycle Strategy

This Asset Management Plan covers the following infrastructure assets:

Roads and Transport excluding Bridges and Culverts.

Asset Category	Dimension	Replacement Value (\$)
Sealed Surface & Sealed Base Pavement	400 km	\$157,545,524
Unsealed Roads	646.5 km	\$19,117,356
Kerb & Gutter	360 km	\$37,371,889
Footpaths and Cycleways	112,967m ²	\$8,616,170
Traffic Furniture		\$5,935,602
Bridges	69	\$53,752,258
SUB TOTAL		\$282,338,799
Bulk Earthworks - Non-Depreciable		\$181,949,000
TOTAL ROADS ASSETS		\$464,287,799

Replacement Value of Assets

Key stakeholders in the preparation and implementation of this Asset Management Plan are:

Key Stakeholder	Role in Asset Management Plan
Infrastructure Manager	Preparation of the Plan
Senior Management	Review and Comment
Councillors	Review, Comment and Approve



2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by purchase, by contract, construction by council staff and/or by donation of assets constructed by developers and others to meet increased levels of service.

Council's goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Taking a life cycle approach
- Developing cost-effective management strategies for the long term
- Providing a defined level of service and monitoring performance
- Understanding and meeting the demands of growth through demand management and infrastructure investment
- Managing risks associated with asset failures
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.

The key element in the sustainable planning for Council is **'Our Infrastructure'** where the four related key strategic objectives are:

- Maintain and improve the quality of utilities.
- Community has access to a broad range of natural and constructed resources for recreation.
- To provide and facilitate access to a broad range of cultural activities.
- To maintain and, where possible, expand opportunities for good local and regional transport.

2.3 Plan Framework

Key elements of the plan are:

- Levels of service specifies the services and levels of service to be provided by Council
- Future demand how this will impact on future service delivery and how this is to be met
- Life cycle management how Council will manage its existing and future assets to provide the required services
- Financial summary what funds are required to provide the required services
- Asset management practices
- Monitoring how the plan will be monitored to ensure it is meeting Council's objectives
- Asset Management Improvement Plan



A road map for preparing an Asset Management Plan is shown below.

Road Map for Preparing an Asset Management Plan

Source: IIMM Fig 1.5.1, p 1.11





2.4 Core and Advanced Asset Management

This Asset Management Plan is prepared as a 'core' Asset Management Plan in accordance with the International Infrastructure Management Manual. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Future revisions of this Asset Management Plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

3 Levels of Service

3.1 Customer Research and Expectations

Council participates in regular telephone Customer Satisfaction Surveys on various issues. Telephone surveys poll a sample of residents on their level of satisfaction with Council's services. Respondents were asked a series of questions regarding services and responded on a 1-5 scale with 1 being poor and 5 being excellent. The most recent customer satisfaction survey reported satisfaction levels for the following services:

Community Satisfaction Survey Levels

Service/Facility	Mean Satisfaction Level - 2008	Mean Satisfaction Level - 2013
Local Roads	3.17	2.95
Footpaths	2.92	2.90
Other Road Assets	3.49	3.10

Results were distributed on a satisfaction v importance matrix with the above areas shown in the table below.

Community Satisfaction Matrix

Higher Importance/Lower Satisfaction	Higher Importance/Higher Satisfaction
Footpaths	Sealed Roads
Lower Importance/Lower Satisfaction	Lower Importance/Higher Satisfaction
Unsealed Roads	Cycleways
Kerb and Gutter	

Council uses this information in developing the Strategic Management Plan and in allocation of resources in the budget. From the recent survey completed, Council is seeing community satisfaction for asset performance and condition decline.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. In particular, those relating to the management of the road network include:



Legislative Requirements

Legislation	Requirement
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments.
Roads Act 1993	Governs the functions of road authorities including local government with respect to all aspects of roads.

3.3 Current Levels of Service

Council has defined service levels in two terms:

Community Levels of Service - relate to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.

Technical Levels of Service - supporting community service levels are operational or technical measures of performance. These technical measures of performance relate directly to the allocation of resources to the various activities that Council undertakes to maintain the physical assets. Desired levels of service are adopted and then compared to existing levels of service to determine how adequately the technical measures of performance are being met.

Technical measures of performance are linked to annual budgets which provide for the following types of service:

- Maintenance the activities necessary to retain assets in as near as practicable to their original condition (eg. bitumen patching of potholes, unsealed road grading, drain clearing). There are two broad types of maintenance activities:
 - 1 Unplanned maintenance variously termed "corrective maintenance" (correcting faults and failures) or "reactive maintenance" (reacting to a fault or failure). The function is to reinstate service by carrying out work on failed assets usually within a short period of time.
 - 2 Planned maintenance variously termed "preventative maintenance" (tasks carried out to prevent faults and the disruption from faults) and "pro-active maintenance" (taking action to protect assets). It is these activities that enhance the life of the asset, slowing down the rate of deterioration and delaying the time for asset renewal (source: after IIMM 2011, Section 3.3.5).
- Renewal the activities which return the service capability of an asset back to that which it had originally (eg. resealing, gravel resheeting, replacement of sections of footpath or kerb and guttering).
- Upgrade the activities which enable an asset to provide a higher level of service (eg. widening a road, sealing an unsealed road, replacing a bridge with a larger structure).



The table below gives details of the different approaches used for responding to the service measure:

Maintenance Approach	Description
Frequency Based	Maintenance activities are carried out periodically according to a defined schedule.
Condition Based	Maintenance actions are carried out in direct response to the condition of the asset.
Risk Based	Maintenance activities are carried out in order to minimise risk.
Opportunist Based	Work is carried out when opportunities arise during maintenance of other assets.

3.4 Desired Levels of Service

Indications of desired levels of service were obtained from various sources including the Customer Satisfaction Survey, residents' feedback to Councillors and staff, service requests and correspondence. Council adopted service levels for most assets in 2011 (see ADC Adopted Maintenance Service Levels 2011) and these have been incorporated in this review. Where there were gaps in desired service levels or existing service levels required expanding or redefining, they have been proposed in this document. Desired levels of service in this plan are tied to the useful life of the various asset classes which are determined by reference to the Infrastructure Asset Useful Life Report sourced from the LGAM Knowledge Base and Council's own experience.

Useful Life

The useful life of an asset is the estimated length of time during which the asset is able to deliver a given level of service.

The useful life of an asset is not necessarily equivalent to its physical life or economic life, a number of other factors may result in an assets useful life being reduced, including:

- Obsolescence
- Changes in community expectations
- Increased demand on capacity
- New legal requirements

The Asset Useful Lives Report is a report prepared by Tonkin Consulting in March 2009 for the Local Government Association of South Australia. The full title of the report is "Infrastructure Asset Useful Lives - SA Council's Current Practices" and it collates asset useful life data contributed by 14 South Australian councils. The results are shown below in the Lowest, Highest and Median columns.

This data was considered along with Armidale Dumaresq Council's local experience and the following table was prepared. The Desired Levels of Service included in the Asset Management Plan were subsequently determined by using the "Adopted" useful life column in the table. The useful lives for bridge asset types were previously adopted by Council and are included for completeness.



Asset Class	Type of Asset		Useful I	Life (years)	
		Lowest	Highest	Median	Adopted
Urban Roads	Normal use AC	20	30	25	25
	High use AC	18	28	21	20
	Spray seal	15	22	18	15
	Cold overlay	7	16	13	12
	Normal traffic pavement	50	100	80	80
	High traffic pavement	20	60	50	60
Rural Sealed	Normal use spray seal	16	30	20	15
Roads	High use spray seal	15	20	16	15
	Normal traffic pavement	50	100	80	80
	High traffic pavement	20	60	50	60
Rural	Gravel resheet - collector	12	27	15	14
Unsealed Roads	Gravel resheet -local access	15	35	20	20
Footpaths	Concrete	20	50	50	50
	Block paved	10	50	43	50
	AC	20	50	28	25
Kerb and	Upright K&G	40	75	70	70
Gutter	Median kerbs/splitter islands	30	75	59	60
	Dished drains	40	75	70	70
Cycleways	Concrete	20	50	50	50
	AC	20	50	28	20
Bridges	Reinforced concrete bridges all types			75 to 100	100
	Full timber construction bridges				80
	Timber bridges with steel stringers				100
	Timber with steel and reinforced concrete components				100
	Reinforced concrete box culvert				100
	Timber with concrete overlay				30
	Timber with reinforced concrete components				80
	Timber with pre-stressed concrete decking				80
	Concrete pipes				80
	Pipe causeway				80
	Precast concrete arch				100
	Concrete causeway				80



It is the intention of this Plan that the adopted Desired Levels of Service are achieved by the end of the Projected 10 Year Program. For example, if the desired level of service for resealing roads is every 15 years but is currently say 20 years, by the last year of the plan the backlog will have been addressed and the cycle time going forward will then be at 15 years.

A table showing Desired Levels of Service and Current Levels of Service is attached to this Plan as "Appendix E".

4 Future Demand

4.1 Demand Forecast

Factors affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership, consumer preferences and expectations, economic factors, agricultural practices, environmental awareness, etc.

Demand factor trends and impacts on service delivery are summarised in the following table.

Demand Factor	Present Position	Projection	Impact on Services
Population	24,684	Approx. growth rate 0.6%	Growth rate is sustainable for existing service delivery
Demographics	Children (0-14) 19.7% Working Age (15-64) 67.8% Elderly (65+) 12.4% Male - 48.4% Female - 51.6%	The trend is an increased ageing population in line with State averages	Increased accessibility demand for mobile impaired
Functional Classification	Classified regional roads part funded by the State	Regional roads being reclassified as local	Increase to asset stock without income. Reduced service delivery/possible disposal or access limitations

Demand Factors, Projections and Impact on Services

4.2 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include non-asset solutions, insuring against risks and managing failures. Further opportunities will be developed in future revisions of this Asset Management Plan.

5 Lifecycle Management Plan

The lifecycle management plan details how Council plans to manage and operate the assets at the agreed levels of service (defined in section 3) while optimising life cycle costs.



5.1 Background Data

5.1.1 Physical Parameters

The assets covered by this Asset Management Plan are shown below:

Asset Category	Dimension
Sealed Surface	Urban - 179 km Rural - 226 km
Sealed Base Pavement	Urban - 179 km Rural - 226 km
Unsealed Roads	657km
Kerb and Gutter	360km
Footpaths and Cycleways	Footpaths - 112,967 m ²
Traffic Furniture	Includes roundabouts, LATM devices, signs, etc.

Road network assets are generally in good condition and the recent assessment suggests they will perform better than initial expectation of useful life.

Council has adopted a fully funded reseal program in recent years and this has shown dividends in the quality of the sealed road network.

Council has 37.5 km of regional road and 86 km of state road. Maintenance of state roads is performed by works staff under contract with the RMS.

Most urban streets have kerb and gutter.

The age profile of Council's assets is shown below. The year acquired has been adjusted to reflect the condition of the asset based on its remaining useful life.



Asset Age Profile





5.1.2 Asset Capacity and Performance

Council's services are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in the table below.

Known Service Performance Deficiencies

Location	Service Deficiency
Sealed Road Network	Increase in heavy vehicle use.
	Changes to road classification. In particular, Kempsey Road, from regional to
	local has placed an increased burden on existing resources to the point
	where the level of service will continue to drop from current levels.
Footpaths	Areas not identified in the PAMP lack the priority and funding for
	maintenance and renewal. Maintenance in these areas is reactive, based on
	customer complaints rather than internal inspections identifying defects and
	programmed maintenance needs.
Kerb and Gutter	Pavement failures close to the kerb mainly through garbage trucks can cause
	failures in what is essentially good kerb and gutter.
	Street trees affecting kerb and gutter.
Unsealed Roads	Availability and location of quality materials for re-sheeting. Gravel pits on
	private property.

5.1.3 Asset Condition



The sealed road surface and pavements were independently surveyed and assessed by contractors using multi-laser profilometry and video. Average roughness, rutting and texture were established for each segment. Defects (eg. cracking) were assessed from the video survey and identified as a percentage area affected for each segment. This data was then imputed into a pavement management system to establish remaining useful life.

Remaining asset types were assessed internally and a 0 (new asset) - 10 (needs replacing) rating scale used to assign a condition to each asset according to descriptions from the following table. The remaining useful life, expressed as a percentage, was then determined from deterioration curves.

The condition profile of Council's assets is shown below.

Asset Condition Profile

Asset Sub-Category	Average Condition
Sealed Surface	3.1
Sealed Base Pavement	3.6
Unsealed Roads	6.1
Kerb and Gutter	3.1
Footpaths and Cycleways	2.5
Traffic Furniture	2.5

5.1.4 Asset Valuations

The value of assets (in \$'000) as at June 2013 covered by this Asset Management Plan is summarised below.

Estimated Cost to bring up to a Satisfactory Level	\$9,063,000
Depreciable Amount	\$282,339
Depreciated Replacement Cost	\$171,857
Annual Depreciation Expense	\$4,354

Council's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal.

Asset Consumption (ADE/DA)	1.54%
Asset renewal (Renewal Expense/DA)	49%

5.2 Risk Management Plan

Council is currently developing an organisational Risk Management strategy. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' - requiring prioritised corrective action identified in the Infrastructure Risk Management Plan are summarised in the following table.



Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Sealed Surface	Surface defects cause potholes and underlying pavement failures which result in lower travel speed and increased risk of traffic crashes.	Н	Inspection program, pothole patching program, regular reseal program.
Sealed Pavement	Pavement defects (roughness and rutting) causing lower travel speed and increased risk of traffic crashes.	H	Inspection program, heavy patching program, regular reseal program. Pavement rehabs according to capital renewal program.
Unsealed Roads	Potholes and corrugations causing lower travel speed and increased risk of traffic crashes. In severe cases, may restrict all weather access to some properties.	н	Inspection program, pothole repair program, maintenance grading program.
Footpaths	Pedestrians falling due to trip hazards.	Н	Inspections of network and scheduled maintenance program.
Kerb and Gutter	Cracking and misalignment due to tree roots. Drainage paths are mis-directed.	Н	Inspections of network and scheduled maintenance program.
Cycleways	Cyclists falling due to surface defects and hazards.	H	Inspections of network, regular reseal or overlay program and scheduled maintenance program.
Bridges	Structural capacity is compromised resulting in imposition of load limits.	Н	Bi-annual Inspection program, repair program.

5.3 Routine Maintenance Plan

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

5.3.1 Maintenance Plan

Maintenance includes reactive, planned and cyclic maintenance work activities. It describes the activities necessary to retain assets in as near as practicable to their original condition.

1 Planned maintenance is repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance. It is these activities that enhance the life of the asset,



slowing down the rate of deterioration and delaying the time for asset renewal (source: after IIMM 2011, Section 3.3.5).

2 Unplanned maintenance - variously termed "corrective maintenance" (correcting faults and failures) or "reactive maintenance" (reacting to a fault or failure). The function is to reinstate service by carrying out work in response to service requests and management/supervisory directions usually within a short period of time.

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement.

Inspections are carried out on road infrastructure in accordance with Council's adopted Maintenance Inspection Procedure (see Appendix A).

Maintenance is funded from Council's operating budget and grants, where available. This is further discussed in Section 6.2.

5.4 Renewal/Replacement Plan

Renewal expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is upgrade or new works expenditure, eg. sealing an existing unsealed road.

5.4.1 Renewal Plan

Proposed projects on urban and rural sealed roads for renewal are initially identified from the results of the SMEC condition assessment for roughness and rutting. These "first cut" candidate proposals were then assessed using either the:

- ADC Urban Roads Project Assessment Rating Model; or
- ADC Rural Roads Project Assessment Rating Model

These models allocate a score to each project according to seven predetermined criteria. Projects were then ranked in order of their model scores and inspected to verify the proposed treatment and scope of work so that a preliminary renewal estimate could be prepared. Verified proposals are ranked by priority and scheduled in the projected 10 year capital works program.

The ADC Project Assessment Rating Models are attached to this report as Appendix B. The projects identified by the models are shown in the Summaries of the Rural Renewal and Upgrade Projects and Urban Renewal Projects, Appendices C and D respectively.

Renewals will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

Examples of low cost pavement renewal include reworking existing material to a depth of 200mm to incorporate an additive which improves the strength of the pavement and then resealing the rehabilitated pavement.

5.4.2 Summary of Future Renewal Expenditure

Projected future renewal expenditures are forecast to increase over time as the asset stock ages.

A summary of the projected capital renewal and upgrade works is shown in "Appendix F".

Deferred renewal, ie. the assets identified for renewal and not scheduled for renewal in capital works programs are included in the risk assessment process in the Risk Management Plan.

Renewals are funded from Council's capital works program and grants, where available.



5.5 Creation/Acquisition/Upgrade Plan

New works are those works which create a new asset that did not previously exist or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development.

5.5.1 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as Councillor or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programs.

The priority ranking for projects which upgrade an existing unsealed rural road to a sealed road is determined by the ADC Rural Project Assessment Rating Model referred to in Section 5.4 above.



Projected Capital Renewal Expenditure (in',000) Without SRV

Projected Capital Renewal Expenditure (in',000) With SRV of 10%





6 Asset Management Practices

6.1 Accounting/Financial Systems

Armidale Dumaresq Council's financial system is Finance 1. This provides core financial data. Asset valuations and depreciation is currently carried out using excel spreadsheets with the Road Asset Register also held in spreadsheets at this point in time.

6.2 Asset Management Systems

Road attribute data including size, location and condition is held on excel spreadsheets, however, some asset information is also held in Council's GIS. It is our intention to centralise all road asset information into one location with integration to Council's financial system.

6.3 Information Flow Requirements and Processes

The key information flowing into this Asset Management Plan is:

- The asset register data on size, age, value, remaining life of the network
- The unit rates for categories of work/material
- The adopted service levels
- Projections of various factors affecting future demand for services
- Correlations between maintenance and renewal, including decay models
- Data on new assets acquired by Council

The key information flowing *from* this Asset Management Plan is:

- The assumed Works Program and trends
- The resulting budget, valuation and depreciation projections
- The useful life analysis

These will impact the Long Term Financial Plan, Strategic Business Plan, annual budget and departmental business plans and budgets.

Council's financial statements contain information regarding the capitalisation of assets, however, no formal policy exists.

7 Plan Improvement and Monitoring

7.1 **Performance Measures**

The effectiveness of the Asset Management Plan can be measured in the following ways:

- The degree to which the required cashflows identified in this Asset Management Plan are incorporated into Council's Long Term Financial Plan and Strategic Management Plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the Asset Management Plan



7.2 Improvement Plan

The Asset Management Improvement Plan generated from this Asset Management Plan is shown in the following table.

Task No	Task	Responsibility	Resources Required	Timeline
1	Develop Asset Capitalisation Policy	COMPLETED		2012
2	Better defined community levels of service linked to service delivery	COMPLETED		2013
3	Maintenance Servicing Plan	COMPLETED		2011
4	Better unsealed roads condition assessment	Infrastructure Manager	Operational Plan Funding	2016

Improvement Plan

7.3 Monitoring and Review Procedures

This Asset Management Plan will be reviewed during IPR Delivery and Operational Plan and budget preparation and amended to recognise any changes in service levels and/or resources available to provide those services as a result of the Council's decision process.

The IPR Delivery Plan has a life of four (4) years and is due for revision and updating within two (2) years of each Council election.

8 Financial Summary

This section contains the financial requirements resulting from all the information presented in the previous sections of this Asset Management Plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

8.1 **Financial Statements and Projections**

The financial projections are shown in the figure below for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).



Planned Operating and Capital Expenditure

Without SRV



With SRV of 10%



Note: that all costs are shown in current 2014 dollar values.



8.1.1 Sustainability of Service Delivery

There are two key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs and medium term costs over the 10 year financial planning period.

Long Term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include maintenance and asset consumption (depreciation expense). The annual average life cycle cost for the services covered in this Asset Management Plan is \$6,575,000.

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan is \$5,695,000.

A gap between life cycle costs and life cycle expenditure gives an indication as to whether present consumers are paying their share of the assets they are consuming each year. The purpose of this Road Asset Management Plan is to identify levels of service that the community needs and can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

The life cycle gap for services covered by this Asset Management Plan is \$880,000 per annum.

Medium Term - 10 Year Financial Planning Period

This Asset Management Plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 10 year period for input into a 10 year financial plan and funding plan to provide the service in a sustainable manner.

This may be compared to existing or planned expenditures in the 10 year period to identify any gap. In a core Asset Management Plan, a gap is generally due to the need to increase asset renewals.

In the medium term the funding gap is calculated at 40% of depreciation per annum.

Providing services in a sustainable manner will require matching of projected asset renewals to meet agreed service levels with planned capital works programs and available revenue.

A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate any funding gap.

Council will manage the 'gap' by developing this Asset Management Plan to provide guidance on future service levels and resources required to provide these services.

8.2 Funding Strategy

Projected expenditure identified in the Transport Infrastructure AMP is to be funded from Council's operating and capital budgets.

A financial sustainability exercise completed by external consultants "Review Today" highlighted the funding gap appearing in asset renewal spending. Their recommendations were based on finding the most appropriate solution to address not only asset expenditure gaps but also maintain healthy operating conditions for Council

8.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to Council.



In 2013 Council was handed the responsibility and ownership of the Kempsey Road, which has impacted upon the maintenance budget.

The depreciated replacement cost (current replacement cost less accumulated depreciation) will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets.

8.4 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this Asset Management Plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this Asset Management Plan are:

- The level of State and Federal Government grant funding will continue in current dollar values.
- Negligible population growth is assumed for the basis of this first plan.
- Condition data and unit replacement rates were the best possible at the time of writing this plan.



9 References

Armidale Dumaresq Council, Community Strategic Plan 2013 -2028

Armidale Dumaresq Council, General Purpose Financial Reports

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, <u>www.ipwea.org.au</u>

J Roorda and Associates: Consultant Report - Asset Cost Assessment for Special Rate Variation



10 Appendices

Appendix A - Maintenance Inspection Procedure

Annexure 1

Annexure 2

- Appendix B Rural Roads Project Assessment Rating
- Appendix C Urban Roads Project Assessment Rating
- Appendix D Summary of Rural Renewal and Upgrading Projects
- Appendix E Summary of Urban Renewal Projects
- Appendix F Table of Desired and Current Levels of Service
- Appendix G Summary of Projected 10 Year Capital Renewal and Upgrading Works Without SRV
- Appendix H Summary of Projected 10 Year Renewal and Upgrading Works With SRV of 10%
- Appendix I Abbreviations
- Appendix J Glossary



Appendix A Maintenance Inspection Procedure

Objective

The maintenance inspection programme is undertaken to identify defects to enable timely repair to increase the usability and life cycle of Council's infrastructure and to minimize Council's liability exposure in the event of incidents involving members of the public.

Procedure

1 Inspections

The city is divided into 8 maintenance areas, which are inspected on a regular basis and at a frequency determined by the usage of the area. See map at Annexure 1.

Depending on usage, Armidale is divided into four categories:

- High Usage Category: CBD (Maintenance Area 1)
- High Risk Category: Shopping centres, aged care facilities, hospitals and schools (Maintenance Area 3)
- Medium Usage Category: General business and residential (Maintenance Area 2)
- Low Usage Category: General residential (Maintenance Areas 4 8)

The schedule for inspections is:

Area 1 (CBD) - fortnightly,

Area 2 (High activity) and 3 (High risk) - monthly, and

Areas 4 to 8 (General residential) - quarterly.

Each area is to be inspected for defects related to the various sections within the Engineering and Works portfolio. These are civic and recreation services (footpaths, kerb and gutter and vegetation maintenance), transport (roads, signs and traffic facilities) and utilities (water, sewerage and stormwater).

Other inspections undertaken, which are not subject to the routine of area inspections are:

- Playground equipment
- Buildings within areas administered by Civic and Recreation Services and inspected on a basis determined by usage
- Sewer lines trunk mains are walked and lines are inspected by camera

These procedures are the same for the following:

Paved Footpaths

Council has recognised that 'slips, trips and falls' associated with footpath networks form a significant percentage of public liability claims received by councils within NSW.

Paved footpaths include those surfaced with concrete, asphaltic concrete, bitumen seal or pavers. Paved footpaths will be inspected for:

• Trip hazards - pathway height differential > 10mm between adjoining slabs.



- Slip hazards pathway surface is slippery.
- Clearance vegetation has an overhang of < 2.2m height clearance and/or lateral clearance < 0.5m from edge of formed pathway, as outlined in POL 133 Footpath Vegetation & Landscaping Obstructions.
- Unevenness pathway is damaged by tree roots or vehicles.
- Build-up pathway is covered by grass, sand or debris covers > 40%
- Drop difference in height of ground level along edge of concrete footpath to pathway of >40mm.

Unpaved Footpaths

Unpaved footpaths are usually grassed or gravel in nature. It is, therefore, difficult to apply the same levels of maintenance to these as that applied to paved footpaths.

Unpaved footpaths will be inspected for:

- Clearance vegetation has an overhang of < 2.2m height clearance and/or provide an access clearway of minimum 1.2 m as outlined in POL 133 Footpath Vegetation & Landscaping Obstructions.
- Unevenness pathway is damaged due to stormwater run-off, tree roots or vehicles.

The condition rating for paved and unpaved footpaths is determined on height of stepping or deformation as follows:

- Slight (S) 10 20mm
- Moderate (M) 20 40mm
- Extreme (X) > 40mm

Kerb and Gutter

The purpose of kerb and gutter is to collect surface stormwater run-off from the road carriageway and adjoining footpaths / property and divert the water to kerb inlet pits or other drainage devices for discharge to the underground pipe system or other appropriate collection/dispersal arrangements.

It covers kerb and gutter located adjacent to footpaths and median strips and around traffic management devices and roundabouts. It is recognised that the majority of new kerb and gutter is laid using kerb making machines to suit various profiles that are specified depending on the design purpose of the kerb and gutter. Older kerb and gutter poured in-situ in formwork also exists in many locations.

The focus is on the ability of the kerb and gutter to collect and discharge water run off as indicated by the lack of significant steps at cracks or joints, ponding, tilting or other local deformities and the resultant need for optimising possible remedial action.

Kerb and gutter will be inspected for:

- Tilt angle that impedes water to flow through the channel correctly. Gutter may be tilted forward or backward.
- Stepping gutter has a height differential between sections that impedes flow, forcing water onto the roadway.
- Unevenness where kerb and gutter is damaged or broken by tree roots or vehicles allowing water to pond.
- Missing where a section of kerb and gutter is missing allowing water to affect the road pavement or footway.

The condition rating for kerb and gutter is determined the severity of the distress as indicated by the height of stepping, tilting or ponding, as follows:

- Slight (S) 10 20mm
- Moderate (M) 20 40mm
- Extreme (X) > 40mm



Roads

Roads are the major transport link that carries various forms of vehicular traffic. It is essential, therefore, that the integrity of the road pavement be maintained to improve the life of the road. The road construction may be unbound flexible pavement or bound (stabilised) flexible pavement. The pavement is sealed by either spray sealed hot bitumen or asphaltic concrete.

Roads also feature traffic facilities that define paths or give instructions to road users; these include line marking, pavement marking, signs, raised pavement markers, guideposts and crash barriers.

This policy applies to sealed flexible pavements of either sprayed seal or asphaltic concrete surfacing and the traffic facilities associated with the road network.

Pavement defects for rating purposes are localised pavement or surface failures or deformations which contribute to the breakdown of the pavement or affect traffic safety or amenity.

The roadway will be inspected for:

- Pavement defects include potholes, temporary or unsuccessful patches, shoving rutting, delamination, unsuccessful trench restoration or localised settlement.
- Edgebreak fretting along the edge of a seal or asphalt surface and is associated with rutting or erosion of the shoulder in the vicinity of the edge of bitumen or lip of kerb and gutter.
- Line marking marked and visible in daylight, comprises of centrelines, lane lines and edgelines which are all longitudinal.
- Pavement marking marked and visible in daylight, all other painted markings on the road that includes transverse stop and give way lines, speed numerals and painted medians.
- Raised pavement markers (RRPMs) broken, ineffective and missing or pushed into the asphalt.
- Signs correct height, alignment, damage and legibility. To include sign structure for damage.

The condition rating for pavement defects is determined the severity of the distress as indicated by the depth of the defect and the extent of the distress.

Depth:

- Slight (S) 10 <20mm
- Moderate (M) 20 75mm
- Extreme (X) > 75mm

Extent:

- 1 <300mm
- 2 300 500mm
- 3 > 500mm

The condition rating for line/pavement marking, raised pavement markers and signs is determined by the condition of the facility.

Line/pavement marking (daytime visibility):

- 1 Excellent
- 2 Good
- 3 Poor
- 4 Inadequate



RRPMs (broken, ineffective, missing or pushed into the asphalt.):

- 1 5% ineffective
- 2 6 20% ineffective
- 3 21 50% ineffective
- 4 > 50% ineffective

Signs (correct height, alignment, damage and legibility):

- 1 < 5% of surface area
- 2 5 10% of surface area
- 3 > 10% of surface area
- 4 Sign illegible

Utilities Infrastructure

The utilities infrastructure to be inspected consists only of the features that are visible at ground level. It includes hydrant covers, stop valve covers, sewer and stormwater manhole covers and stormwater drainage pits either side entry or grated.

Utilities infrastructure will be inspected for:

- Broken or damage hydrant/stop valve covers.
- Height differential of hydrant/stop valve covers to surrounding footpath/footway or road surface.
- Blocked stormwater pits and culverts.
- Broken or damaged stormwater pits or manhole covers or pit lids.

The condition rating for hydrants/stop valves is determined by the height differential to the surrounding footpath:

- Slight (S) 10 20mm
- Moderate (M) 20 40mm
- Extreme (X) > 40mm

The condition rating for stormwater pits and culverts is determined by the extent of obstruction.

- 1 2 5% obstruction
- 2 6 10% obstruction
- 3 11 40% obstruction
- 4 40% obstruction

Operation

- 1 Inspection of assets on a routine basis as detailed above. The data is entered into an Excel spreadsheet.
- 2 Inspection services section distributes and records the date of issue of the defect lists to supervisors.
- 3 Supervisors undertake a Risk Assessment and determine a timeframe to effect repair either as routine or programmed maintenance. Statewide Best Practice Manuals are to be used as a guide.
- 4 Supervisors to advise Inspection Services of timeframe for programmed work, eg. 1month, 3 months, etc.
- 5 Work crews to complete tasks on list and record actual date of completion of work.
- 6 Completed forms to be returned to Inspection Services section to ensure completed tasks are removed from the inspection records.

See flowchart at Annexure 2.



Referenced documents:

- POL 133 Footpath Vegetation & Landscaping Obstructions
- RTA Rocond 90 Road Condition Manual
- Statewide Mutual Best Practice Manual Footpaths, Nature Strips and Medians
- Statewide Mutual Best Practice Manual Roads


Annexure 1



ARMIDALE DUMARESQ COUNCIL MAINTENANCE INSPECTION AREAS



Annexure 2

Maintenance Inspection and Defect Repair Process





Appendix B – Rural Roads Project Assessment Rating

			For This P	roject
Criteria	Scale	Points	Value*	Points
1. ACTUAL ROAD USAGE				
AADT Total (Virtual Day)	<50	0		
	50 to 100	1		
	>100 to 250	2		
	>250 to 500	3		
	>500 to 1000	4		
	>1000 to 1500	5		
	>1500	6		
AADT Heavy Vehicles	<10	0		
	10 to 20	1		
	>20 to 40	2		
	>40 to 80	3		
	>80 to 150	4		
	>150	5		
School Bus Route	No	0		
	Yes	3		
2. PAVEMENT HEALTH	1			-
Roughness - sealed surface (counts/km)	>80	0		
See Note 1.	60 to 80	2		
	40 to 59	4		
	20 to 39	6		
	1 to19	8		
	0 or less	10		

			For This P	roject
Criteria	Scale	Points	Value*	Points
	Gravel Road	5		
Rutting - sealed surface (mm)	>80	0		
See Note 2.	60 to 80	2		
	40 to 59	4		
	20 to 39	6		
	1 to19	8		
	0 or less	10		
	Gravel Road	3		
3. ROAD WIDENING				
Rectifies deficiency in carriageway width	No	0		
(ie. outside shoulder to shoulder)	< 1m	1		
See Note 3.	1m to 2m	3		
	> 2m	5		
4. INITIAL SEAL				
Services community with no	No	0		
alternative sealed access to either	<10	1		
Armidale or Uralla.	10 to 20	2		
Number of permanently occupied residences.	>20	3		
See Note 4.				
Seals missing link	< 20% of gap	0		
	20% to < 40%	1		
	40% to < 60%	2		
	60% to < 80%	3		
	80% to 100%	4		

			For This Pro	oject
Criteria	Scale	Points	Value*	Points
5. ROAD ALIGNMENT				
Rectifies design speed deficiency	<15 km/h	0		
compared with environmental speed	15 to 25 km/h	1		
(ref AUSTROADS)	>25 to 35 km/h	2		
	>35 to 45 km/h	3		
	>45 to 50 km/h	4		
	>50 km/h	5		
6. ECONOMICS				
Reduces maintenance costs on	AADT <= 150	2		
gravel roads	AADT > 150	5		
Project Total Cost	>\$500k	0		
	\$301 to \$500k	1		
	<\$300k	2		
7. ROAD SAFETY				
Reported injury/fatal crashes over 5 years	0	0		
(Police P4)	1	1		
	2	2		
	3	4		
	4	7		
	>= 5	10		
			Total Score	



Notes:

1. The methodology adopted to quantify the condition of a pavement is the same used by SMEC and involves converting the raw roughness data to an Austroads Pavement Health Roughness Index (PHNI). The Austroads formula takes into consideration traffic levels as well as the roughness value. This recognises that higher roughness can be tolerated on low traffic local access roads than on, for example, collector roads with higher traffic volumes. A road with a PHNI of 100 is assumed to have full life remaining. The rougher a road becomes, the lower the health index. Values can go negative and there is no theoretical terminating score. If the project is an Initial Seal enter the word "Gravel".

 The Austroads Health Indices also includes a Pavement Health Rutting Index (PHRI). This index considers the depth of the rut, the traffic levels and the local annual rainfall since ruts can hold rain water which can lead to vehicles losing traction with the road surface and aquaplaning.
A pavement with no rutting is considered to have a PHRI of 100.
If the project is an Initial Seal enter the word "Gravel".

3. The RTA Road Design Guide gives the following minimum carriageway widths for rural roads:

AADT	No. of Lanes	Lane Width (m)	Min Carriageway
			Width (m)
1 to 150	1	3.5	5.5
150 to 500	2	3.0	8.0
500 to 2000	2	3.0 - 3.5	9.0
>2000	2	3.5	11.0

As an example, an initial seal project will score in this criteria if the existing carriageway width is less than 8.0m and the AADT traffic volume is >150. Roads with <150 AADT will need to have an existing carriageway width of less than 5.5m to score under this criteria.

4. Estimate the number of permanently occupied residences from GIS/Enlighten.



Appendix C – Urban Roads Project Assessment Rating

			For Th	is Project
Criteria	Scale	Points	Value*	Points
1. ACTUAL ROAD USAGE				
Latest AADT Total	<300	0		
	300 to 1000	1		
	>1000 to 2000	2		
	>2000 to 4000	3		
	>4000 to 7500	4		
	>7500 to 10000	5		
	>10000	6		
AADT Heavy Vehicles	<15	0		
	15 to 50	1		
	>50 to 100	2		
	>100 to 200	3		
	>200 to 300	4		
	>300	5		
Is the project on a Bus Route?	No	0		
	Yes	1		
Does the project form part of an on-road	No	0		
bicycle route identified in the latest	Yes	1		
Bicycle Strategy?				
2. PAVEMENT HEALTH				
PHNI Roughness Index	>80	0		
See Note 1.	60 to 80	2		
	30 to 59	4		
	0 to 29	6		
	-1 to -39	8		

			For Th	is Project
Criteria	Scale	Points	Value*	Points
	<-40	10		
PHRI Rutting Index	>80	0		
See Note 2.	60 to 80	2		
	40 to 59	4		
	20 to 39	6		
	1 to 19	8		
	0 or less	10		
3. REDUCED ROAD WIDTH				
Does the road hierarchy provide an	No	0		
opportunity to reduce street width?	< 1m	1		
See Note 3.	1m to 2m	2		
	> 2m	3		
4. INITIAL SEAL				
Does the work provide an initial seal to at	No	0		
least part of the section?	Yes	1		
5. KERB AND GUTTER				
Does the existing kerb and gutter require	No	0		
replacement and can the work be completed	Yes	1		
concurrently with the roadworks?		-		
See Note 4.				
1				

			For T	his Project
Criteria	Scale	Points	Value*	Points
6. PROJECTED FUTURE TRAFFIC				
Are future changes in land use likely lead to	No	0		
an increase in projected traffic?	Yes	1		
7. ECONOMICS				
Project Total Cost	>\$300k	0		
	\$220 to \$300k	1		
	<\$220k	2		
*Enter values in the light shaded boxes only.				

Notes:

The methodology adopted to quantify the condition of a road pavement is based on SMEC data which converts the raw roughness and rutting counts to Austroads Pavement Health Indices PHNI and PHRI

respectively.

1. The Pavement Health Roughness Index (PHNI) takes into consideration traffic levels as well as the roughness value.

This recognises that higher roughness can be tolerated on low traffic local access roads than on, for example, collector roads with higher traffic volumes. A road with a PHNI of 100 is assumed to have full life remaining. The rougher a road becomes, the lower the health index. Values can go negative and there is no theoretical terminating score.

2. The Pavement Health Rutting Index (PHRI) considers the depth of the rut, the traffic levels and the local annual rainfall since ruts can hold rain water which can lead to vehicles losing traction with the road surface and aquaplaning. A pavement with no rutting is considered to have a PHRI of 100. The worse the rutting, the lower the index.

3. For minimum and maximum carriageway widths see the Table of Characteristics of roads in Residential Road networks on page 10 of Aus-Spec 0041 Geometric Road Layout.

4. This requires provision of separate funding for the replacement of kerb and gutter and associated drainage.



Project Name	1a	1b	1c	2a	2b	3a	4a	4b	5a	6a	6b	7a	Score	Rank
Boorolong (Weirs to Red														
Gum)	586	39.5	Yes	20	38	1.5	No	0	10		380	0	25	
Boorolong (Handel to														
Rowlands)	586	39.5	Yes	51	38	1.5	No	0	0		426	2	25	1
Guyra Ebor (D80R to G45L)	205	40.0	Yes	39	23	1.5	No	0	0		736.4	0	22	2
Guyra Ebor (D95R to G30L)	198	40.0	Yes	34	53	1.5	No	0	0		67.2	0	22	2
Boorolong (Westbreak Br														
to Warrane)	200	13.5	Yes	36	50	1.2	No	0	15		454	1	22	2
Rockvale (Trelawney to														
Tilbuster Ck)	871	82.0	Yes	40	63	1.5	No	0	10		387.2	1	22	2
Enmore (2km to 3km)	300	10.0	Yes	59	21	1.2	No	0	0		400	0	21	6
Enmore (Dangarsleigh to														
1km)	300	12.0	Yes	55	32	1.2	No	0	0		400	0	21	6
Guyra Ebor (Aberfoyle to														
D85R)	205	40.0	Yes	34	59	1.5	No	0	0		340.8	0	21	6
Guyra Ebor (Aberfoyle to														
Rockvale)	205	40.0	Yes	34	59	1.5	No	0	0		1605.6	1	21	6
Dangarsleigh (Edwards to														
Dangars Falls)	398	23.0	Yes	39	56	1.5	No	0	0		632	0	21	6
Kellys Plains (ACC bdy to														
Gentles)	501	27.0	Yes	70	44	1.2	No	0	0		274	1	21	6
Kellys Plains (Gentles to														
Translator)	495	27.0	Yes	52	50	1.2	No	0	0		378	1	21	6
Guyra Ebor (D85R to G40L)	205	40.0	Yes	42	53	1.5	No	0	0		336.4	1	20	13
Rockvale (Burying Ground														
to 10km)	237	22.0	Yes	56	44	1.5	No	0	20		600	1	20	13



Project Name	1a	1b	1c	2 a	2b	3a	4a	4b	5a	6a	6b	7a	Score	Rank
Old Inverell (Handel to														
Shambrook)	528	20.5	Yes	13	93	No	No	0	0		42.4	0	19	
Andersons (Castledoyle to														
end)	54	3.0	Yes	24	38	2.0	No	0	0		736	0	19	
Castledoyle (Waterfall														
Way to Mann)	593	19.0	Yes	66	32	No	No	0	0		181.6	1	19	15
Guyra Ebor (Brookfields to														
G25L)	198	40.0	Yes	68	36	1.5	No	0	0		324.4	0	19	15
Guyra Ebor (D100R to														
Brookfields)	198	40.0	Yes	63	6	1.5	No	0	0		43.2	0	18	15
Wollomombi Falls														
(Waterfall Way to end)	120	4.0	No	26	16	0.9	No	0	0		520	1	18	
Guyra Ebor (G25L to														
Willow Park)	198	40.0	Yes	69	53	1.5	No	0	0		84	0	18	18
Guyra Ebor (Lyndhurst to														
D90R)	205	40.0	Yes	40	47	1.5	No	0	0		1674.4	0	18	18
Kellys Plains (Translator to														
Platform)	495	27.0	Yes	63	55	1.2	No	0	0		900	1	18	18
Enmore (3km to 4km)	180	9.0	Yes	75	27	1.2	No	0	0		400	0	17	21
Enmore (5km to 6km)	120	6.0	Yes	73	27	1.2	No	0	0		400	0	17	21
Castledoyle (Mann to														
Round Rd)	593	19.0	Yes	60	32	No	No	0	0		335.6	0	17	21
Enmore (4km to 5km)	160	8.0	Yes	64	38	1.2	No	0	0		400	0	17	21
Enmore (1km to 2km)	300	10	Yes	66	50	1.2	No	0	0		400	0	17	21
Thorpleigh (Mid section														
(1))	40	5.0	No	22	27	2.0	No	0	10		440	0	16	26

Project Name	1a	1b	1c	2a	2b	3a	4a	4b	5a	6a	6b	7a	Score	Rank
Puddledock (Tilbuster to														
Odeas Rd)	146	16.0	Yes	40	66	1.2	No	0	10		343.6	0	16	26
Kilcoy (Wollomombi to														
Fassifern)	17	3.5	Yes	13	27	0.9	No	0	10		600	0	14	28
Enmore (6km to														
Boundary)	80	5.0	Yes	61	44	1.2	No	0	0		400	0	14	28
Warrane (Boorolong to														
2.4km)	84	3.0	Yes	41	77	0.9	No	0	20		948	1	13	30
Trelawney (Rockvale to														
end seal)	40	2.5	No	66	32	No	No	0	0		92	0	10	31
///// INITIAL SEALS														
FOLLOW//////													_	
Gostwyck (Knobs to end														
2.6km)	153	7.0	Yes	Gravel	Gravel	1.5	18	0	10	153	1041.6	0	23	1
Platform (Balance Kellys														
Plains to SH9)	129	8.5	No	Gravel	Gravel	1.5	5	100	10	129	714	0	20	2
Metz (Stage 1 - 0.55 to														
1.7km)	69	20.0	No	Gravel	Gravel	1.5	15	0	10	69	483	0	18	3
Dangars Falls (Balance to														
Black Lane)	96	4.0	No	Gravel	Gravel	1.8	11	0	10	96	1155	2	18	3
Metz (Stage 2 - 1.7 to														
3.55km)	69	20.0	No	Gravel	Gravel	1.5	14	0	10	69	777	0	17	5
Cluny (end seal to														
Tallawong Lane)	118	9.0	No	Gravel	Gravel	1.5	12	0	10	118	655.2	0	17	5
Metz (Stage 3 - 3.86 to														
5.35km)	49	20.0	No	Gravel	Gravel	1.5	12	0	10	69	671	1	17	5

Project Name	1a	1b	1c	2a	2b	3a	4a	4b	5a	6a	6b	7a	Score	Rank
Blue Hole (Castledoyle to														
end 2.1km)	46	1.0	No	Gravel	Gravel	0.9	4	0	0	46	882	3	16	8
Point Lookout (Waterfall														
Way to Hatchery)	76	4.5	No	Gravel	Gravel	1.5	6	0	0	76	966	1	16	8
Clarks (balance to Kirby)	150	8.0	No	Gravel	Gravel	0.9	3	31	10	54	630	0	15	10
Bellewood (Boorolong to														
end)	90	3.0	No	Gravel	Gravel	0.9	14	0	0	54	966	0	14	11
Kirby (Weirs to Clarks)	57	2.0	No	Gravel	Gravel	0.9	5	34	10	57	701.4	0	14	11
Weirs (Boorolong to Kirby)	46	3.5	No	Gravel	Gravel	0.9	4	35	10	54	714	0	13	13
Rowlands (Old Inverell to														
Boorolong)	34	1.0	No	Gravel	Gravel	0.9	5	0	0	34	336	0	13	13
Trelawney (Balance to														
end)	30	2.5	No	Gravel	Gravel	0.9	8	0	0	54	357	0	13	13



Appendix D Summary of Rural Renewal and Upgrading Projects

Year	Description	Cost	Comment	Score
2014-15	Rockvale Road Trelawney to Tilbuster Creek	\$438K	Part rehab. and Heavy Patch	22
	Guyra Ebor Regional Road D80R to G45L	\$192K	Possible Regional Road Funding	22
2015-16	Boorolong Road Westbreak Culvert to Warrane Road (Part)	\$360K		22
	Guyra Ebor Regional Road D95R to G30L	186K	Possible Regional Road Funding	22
2016-17	Kellys Plains Road Barclay to Gentles (part)	\$135K		21
	Kellys Plains Road Gentle's to Translator	\$338K		21
2017-18	Dangarsleigh Road Knobs Road to Dangars Falls Road	\$711K		21
2018-19	Guyra Ebor Regional Road Aberfoyle to D85R	\$192K	Possible Regional Road Funding	21
2019-20	Platform Road	\$765K	Initial Seal	20
	Rockvale Road Burying Ground Creek to 10km	\$675K		20
2020-2021	Guyra Ebor Regional Road 85R to G40	\$182K	Possible Regional Road Funding	20
2021-2022	Kellys Plains Road Translator to Platform Road	\$675K		18
	Metz Road Stage 1 0.55k to 1.07K	\$517K	Initial seal	18



2022-23	Old Inverell Road Handel to Shambrook	\$42.4K	Rail Crossing subject to decision for future of Northern Rail Line	19
	Guyra Ebor Regional Road D110R to Brookfields	\$44K		18
	Castledoyle Waterfall Way to Mann Street	181.6K	Intersection improvement at developer's cost	19
2023-24	Wollomombi Falls Road Waterfall Way to National Park	\$520K	Tourist Road to NP	18
	Dangars Falls Road End of Seal to Black lane	\$1,120K	Tourist Road to NP	18



Appendix E Summary of Urban Renewal Projects

	1a	1b	1c	1d	2a	2b	За	4a	5a	6a	7a		
Project Name	AADT	HV	Bus	Cycle	PHNI	PHRI	width	IS	K&G	>vpd	Cost	Score	Rank
URALLA, KURRAWATHA-MOORE PARK RD	5500	165	Yes	No	-2	15	No	No	No	No	219	26	
MILLER, WRIGHT to AMPOL ST	6176	420	Yes	Yes	-23	40	No	No	No	No	162	25	1
MARSH, DUMARESQ-KIRKWOOD	10 234	390	Yes	No	-1	40	No	No	No	No	242	23	
MARKHAM, MOSSMAN-MANN	6689	295	Yes	Yes	-45	74	No	No	No	No	254	23	2
TAYLOR, JEFFERY-NEWTON	1700	34	Yes	Yes	12	29	2.4	No	Yes	No	223	22	3
MARKHAM, KENTUCKY-HARGRAVE	3993	123	Yes	Yes	-31	57	No	No	No	No	127	22	3
MARKHAM, MANN-BROWN	6303	245	Yes	Yes	-33	74	No	No	Yes	No	254	22	
McLENNAN, DREW-NIAGARA	6397	429	Yes	Yes	-15	100	No	No	No	Yes	219	22	
DANGAR,BEARDY-DUMARESQ (MOORE?)	2630	111	Yes	Yes	-73	66	No	No	No	No	81	22	3
ERSKINE, W END CRASH BARRIER-KENNEDY	2705	73	Yes	No	0	15	No	No	No	Yes	300	21	6
TAYLOR, BROWN-BARNEY	1732	47	No	Yes	-2	50	2.0	No	Yes	No	204	21	6
MARSH, NEWTON-ERSKINE	9000	270	Yes	No	12	57	No	No	No	No	254	21	
DANGAR, RAILWAY LINE-KENTUCKY	7900	290	Yes	Yes	-14	100	No	No	No	No	46	21	
MARKHAM, BEARDY-DUMARESQ	6273	156	Yes	Yes	-32	74	No	No	No	No	219	21	6
NIAGARA, TANCREDI-DONNELLY	5500	275	Yes	Yes	-20	74	No	No	No	No	254	21	6
DUMARESQ, JESSIE-MARKHAM	7474	215	Yes	Yes	13	57	No	No	No	No	496	20	10
MANN, JESSIE-ALLINGHAM	1296	50	No	Yes	15	29	1.6	No	No	No	213	20	10
DANGAR, BROWN-BARNEY	8195	250	Yes	Yes	14	74	No	No	No	No	254	20	
NIAGARA, RUSDEN-BEARDY	5902	291	Yes	Yes	7	66	No	No	No	No	185	20	10
ROCKVALE, GORDON-APPLE TREE HILL	1764	60	Yes	No	-31	32	No	No	No	Yes	658	20	10
MILLER, BUNDARRA RD to MANN	5100	310	Yes	Yes	-25	91	No	No	No	No	265	20	10
MARKHAM, GARIBALDI-KENTUCKY	2808	44	Yes	Yes	-71	74	No	No	No	No	115	20	10
MARKHAM, DUMARESQ-KIRKWOOD	6422	128	Yes	Yes	-39	100	No	No	Yes	No	254	19	16
MARKHAM, KIRKWOOD-DONNELLY	6422	128	Yes	Yes	-16	100	No	No	Yes	No	242	19	16
MANN, FAULKNER-DANGAR	2000	100	No	Yes	0	57	1.6	No	No	No	165	19	16
MILLER, MANN to WRIGHT	6100	420	Yes	Yes	0	83	No	No	No	No	185	19	16
DONNELLY, FAULKNER-DANGAR	3500	70	No	No	-15	57	No	No	No	No	219	19	16

	1a	1b	1c	1d	2a	2b	3a	4a	5a	6a	7a		
Project Name	AADT	HV	Bus	Cycle	PHNI	PHRI	width	IS	K&G	>vpd	Cost	Score	Rank
TAYLOR, KIRKWOOD-DONNELLY	2500	50	Yes	Yes	-4	85	2.4	No	No	No	213	19	16
FAULKNER, RUSDEN-BEARDY	3197	96	Yes	Yes	-9	66	0	No	No	No	182	19	16
MARKHAM, RUSDEN-BEARDY	5350	124	Yes	Yes	14	74	No	No	No	No	185	19	16
HANDEL, END OF KERB-BOUNDARY	1500	60	Yes	Yes	2	57	No	No	No	Yes	127	19	16
DONNELLY, DANGAR-JESSIE	3500	70	No	No	-62	74	No	No	No	No	208	19	16
BARNEY, MARKHAM-BUTLER	4000	200	Yes	No	15	50	No	No	No	No	254	18	26
KENTUCKY,O'CONNOR-ALLINGHAM	6000	300	No	No	8	57	No	No	No	No	358	18	26
CANAMBE, BARNEY-SIMMONS	2573	148	Yes	Yes	8	57	No	No	No	No	427	18	26
NIAGARA, BEARDY-DUMARESQ	5500	275	Yes	Yes	13	83	No	No	No	No	219	18	26
LONG SWAMP,BOUNDARY-75 KM/H SIGN	300	20	Yes	No	38	-1	No	No	No	Yes	329	18	26
ROCKVALE, WATSON-ARUNDEL	2300	81	Yes	No	3	57	No	No	No	Yes	242	18	26
ROCKVALE, APPLE TREE HILL-BOUNDARY	1334	63	Yes	No	-34	57	No	No	No	Yes	416	18	26
GLEN INNES RD, JUBILEE-RICHARDSON	5000	150	No	No	18	57	No	No	No	No	255	18	26

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Asset Group	Type of Service	Activity	Basis for Response	Performance Measure	Desired Level of Service	Current Level of Service
Urban Roads	Planned Maintenance	Routine bitumen patching	Condition	Seal integrity is maintained due to patching frequency.	Potholes do not exceed 150mm in diameter.	Potholes do not exceed 250mm in diameter.
		Pavement markings	Condition or frequency	Percentage of markings meeting current standards and are legible (especially at night).	Less than 10% of markings do not meet RMS Delineation Guidelines or AS 1742.	No program. Pavement markings are repainted when funding is available.
		Signs maintenance	Condition	Percentage of signage meeting current standards.	Less than 5% signs with defects.	Signs with defects are replaced as resources permit.
	Unplanned Maintenance	Repair hazards and defects	Risk or condition	Percentage of hazards and defects which are repaired within adopted response times.	100% of repairs are effected within adopted response times.	75% of repairs are effected within adopted response times.
	Renewal	Resealing	Frequency	Frequency of resealing.	Local collectors and local distributors every 15 years.	Average is >1 in 20 years.
		Rehabilitation	Condition	Percentage of network performing to original service levels.	Program projects with ADC Urban Rating Model score >20 (currently 9 projects) to be completed within 10 years.	Projects are listed pending availability of funding.
Rural Sealed Roads	Planned Maintenance	Routine bitumen patching	Condition	Seal integrity maintained due to patching frequency.	Potholes do not exceed 150mm in diameter.	Potholes do not exceed 200mm in diameter.

Appendix F Table of Desired and Current Service Levels



Asset Group	Type of Service	Activity	Basis for Response	Performance Measure	Desired Level of Service	Current Level of Service
		Pavement markings, guardrail and guideposts	Condition or frequency	Percentage of markings, guardrail and guideposts meeting current standards.	Less than 10% of markings do not meet RMS Delineation Guidelines or AS 1742.	No program. Pavement markings, guardrail and guideposts maintained when funding available.
		Signs maintenance	Condition	Percentage of signage meeting current standards.	Less than 5% signs with defects.	Signs with defects are replaced as resources permit.
		Clearing of drains and cleaning culverts	Condition, frequency or opportunist	Proportion of drains and culverts diverting runoff away from pavements.	Drains cleared and culverts cleaned every 15 years or as required to achieve at least 75% of waterway capacity.	Some drains cleared and culverts cleaned occasionally when opportunity arises.
		Verge mowing and vegetation control	Condition or frequency	Frequency of treatment - maximum sight distance and clearances maintained. Guide posts are visible.	Verges slashed 2 times per year and problem vegetation removed within 6 months.	Some verges slashed once per year.
		Shoulder reinstatement	Condition	Edge drop-off does not create a hazard to vehicles.	Edge drop-off does not exceed 50mm over >50m.	Intervention when edge drop- off exceeds 75mm.
		Maintenance of rural bus stops	Condition	Number of complaints of unsafe bus access.	Less than 2 complaints per year.	Less than 3 complaints per year.
	Unplanned Maintenance	Repair hazards and defects	Risk or condition	Percentage of hazards and defects which are repaired within adopted response times.	100% of repairs are affected within adopted response times.	75% of repairs are affected within adopted response times.



Asset Group	Type of Service	Activity	Basis for Response	Performance Measure	Desired Level of Service	Current Level of Service
	Renewal	Resealing	Frequency	Frequency of resealing.	15 years for local collector roads (AADT <200vpd).	Average frequency across all road classes is > 1 in 20 years.
					12 years for local distributor roads (AADT > 200vpd).	
		Rehabilitation	Condition	Percentage of network performing to original service levels.	Program projects with ADC Rural Rating Model score >20 (currently 12 projects) to be completed within 10 years.	Projects are listed pending availability of funding.
Rural Unsealed Roads	Planned Maintenance	Maintenance grading	Condition	Average maintenance grading frequency.	All through and primary access roads graded at least once per year. Secondary roads at least once every second year.	Some through and primary access roads graded once per year. Secondary roads once in three or four years.
		Signs maintenance	Condition	Percentage of signage meeting current standards.	Less than 10% signs with defects.	Signs with defects are replaced as resources permit.
		Clearing of drains and cleaning culverts	Condition, frequency or opportunist	Number of drains and culverts diverting runoff away from pavements.	Drains cleared and culverts cleaned once in 15 years or as required to achieve at least 75% of waterway capacity.	Some drains cleared and culverts cleaned occasionally when opportunity arises.
		Maintenance of 240 stock grids	Condition	Number of grids which allow through drainage and prevent stock movement.	Clean out grids every 6 years.	Some grids cleaned on demand.



Asset Group	Type of Service	Activity	Basis for Response	Performance Measure	Desired Level of Service	Current Level of Service
	Unplanned Maintenance	Repair hazards and defects	Risk or condition	Frequency and duration of road closures.	Road is impassable for not more than 0.5 days (flooding excepted).	Road is impassable for not more than 1 day (flooding excepted).
	Renewal	Gravel resheeting	Frequency or condition	Percentage of road length resheeted each year.	All primary access roads 7% of length per year (1 in 14 years). Secondary roads 5% of length per year (1 in 20 years).	Average is 1.8% of length of all gravel roads per year (1 in 56 years).
	Upgrade	Provide all-weather access	Condition	Number of properties served by a Public Road without all-weather access.	All properties within the LGA to have all-weather access within 3 years.	No program adopted. Work is dependent on funding availability.
		Seal existing gravel roads	Condition	Percentage of road network with >200 vpd remaining unsealed.	Program projects with ADC Rural Rating Model score >17 (currently 4 projects). All roads with AADT >100 vpd sealed within 15 years.	Projects are listed pending availability of funding.
Footpaths	Planned Maintenance	Crack sealing, hole repairs and grinding.	Condition	Complaints from the public and results of scheduled inspections.	Grind when displacement is 10- 20mm. Less than 2 complaints per year and inspections show overall improvement in Asset Group condition.	Less than 3 complaints per year.

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Asset Group	Type of Service	Activity	Basis for Response	Performance Measure	Desired Level of Service	Current Level of Service
	Unplanned Maintenance	Repair hazards and defects	Risk	Hazards and defects >10mm are repaired asap. Percentage of times that intervention levels are met.	Grind and program replacement when displacement is 20-30mm.	Grind and program replacement when displacement is 30-50mm.
	Renewal	Replace existing footpaths	Risk and condition	Percentage of length of footpaths replaced which are at level 4 or above.	Replace all sections where condition is at rating level 4 or above.	Replace some sections where condition is at rating level 5.
	Upgrade	Construct new paved footpaths	Risk and condition	Percentage of footpaths in key areas remaining unpaved.	All footpaths in Areas 1, 2 and 3 (CBD, fringe CBD and high risk) to be paved within 4 years.	All footpaths in Areas 1, 2 and 3 to be paved within 10 years.
Kerb and Gutter	Planned Maintenance	Repairs to broken or disjointed sections	Risk and condition	Complaints from the public and results of scheduled inspections.	Less than 3 complaints per year and inspections show improvement in overall Asset Group condition.	Less than 3 complaints per year.
	Unplanned Maintenance	Repair hazards and defects	Risk	Percentage of length free of hazards and defects.	Replace short sections when displacement is >50mm or water is directed onto road.	Replace short sections when displacement is >75mm.
	Renewal	Replace existing K&G	Risk and condition	Percentage of length of K&G at level 9 or above which has not been replaced.	Replace all sections where condition is at rating level 9 or above.	Replace all sections where condition is at rating level 10.

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Asset Group	Type of Service	Activity	Basis for Response	Performance Measure	Desired Level of Service	Current Level of Service
	Upgrade	Construct new K&G	Condition and/or opportunist.	Length adjacent to new or infill development where K&G not constructed.	Construct K&G adjacent to all new or infill development (developer contributions may apply).	Construct K&G adjacent to new or infill development provided 100% developer contributions.
Cycleways	Planned Maintenance	Repairs to broken or disjointed sections	Risk and condition	Number of complaints from the public and results of inspections.	Less than 3 complaints per year and inspections show improvement in overall Asset Group condition.	Less than 5 complaints per year.
	Unplanned Maintenance	Repair hazards and defects	Risk	Percentage of network free of hazards and defects.	100% of repairs are affected within adopted response times.	Most repairs are affected within adopted response times.
	Renewal	Resurface	Frequency	Frequency of resealing or AC overlay.	6% of length per year (1 in 17 years)	Some resealing completed with annual streets program.
	Upgrade	Construct new cycleways to improve connectivity.	Condition and opportunist	Level of connectivity across the cycleway network.	A project to improve connectivity is undertaken every 2 years.	No program. Projects are listed pending availability of funding.
Bridges	Planned Maintenance	Replace bridge components.	Condition	Number of bridges performing to original service levels.	Less than 3 complaints per year and inspections show improvement in overall Asset Group condition.	Less than 3 complaints per year.
	Unplanned Maintenance	Repair hazards and defects	Risk and condition	Percentage of bridges free of hazards and defects.	100% of repairs are affected within adopted response times.	Most repairs are affected within adopted response times.



Asset Group	Type of Service	Activity	Basis for Response	Performance Measure	Desired Level of Service	Current Level of Service
	Renewal	Major structural repairs or concrete overlay	Risk and condition	Number of bridges performing to original service levels.	Percentage of bridges not performing to original service levels (load limits, toms etc)	No program. Repairs are listed pending availability of funding.
	Upgrade	Replace bridge with larger structure.	Condition	Structures meet current standards and community expectations.	Average one bridge replacement per year for 10 years.	New projects are listed pending availability of funding.



Appendix GSummary of Projected 10 Year Renewal and Upgrading Works Without SRV

TRANSPORT INFRASTRUCTURE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	1,578	968	528	997	541	528	625	232	437	170	6,604
Total Program	Upgrades =	100	104	233	72	26	386	21	-	-	50	992
Summary in \$ 000	Annual Total =	1,678	1,072	761	1,069	567	914	646	232	437	220	7,596
RENEWALS												
Urban Rehab		346,000	59,000	221,000	15,000	256,000	102,000	93,000	-	-	-	1,092,000
Urban Reseals		100,000	313,000	90,479	103,591	100,000	-	150,000	76,300	49,213	10,000	992 <i>,</i> 583
Rural Rehab		456,175	350,000	123,000	711,000	52,000	301,000	182,000	-	-	-	2,175,175
Rural Reseals		209,000	166,004	27,000	167,000	119,000	115,000	200,000	156,000	50,000	50,000	1,259,004
Gravel Re-sheeting		-	-	-	-	-	-	-	-	-	-	-
Kerb and Gutter		22,000	27,000	61,000	-	-	-	-	-	72,000	30,000	212,000
Footpaths		165,000	-	-	-	-	-	-	-	96,000	80,000	341,000
Cycleways		50,000	53,000	-	-	-	10,000	-	-	-	-	113,000
Bridges		230,000	-	-	-	-	-	-	-	170,000	-	400,000
Other Assets (Carparks)		-	-	6,000	-	14,000	-	-	-	-	-	20,000
Total Renewals		1,578,175	968,004	528,479	996,591	541,000	528,000	625,000	232,300	437,213	170,000	6,604,762
NEW WORKS & UPGRA	DES	-	-	-	-	-	-	-	-	-	-	-
Rural Upgrades		50,000	-	-	-	-	385,930	-	-	-	-	435,930
Cycleways		50,000	-	137,000	-	-	-	-	-	-	50,000	237,000
Footpaths		-	104,000	95,763	71,596	26,000	-	21,000	-	-	-	318,359
TOTAL RENEWALS, NEV UPGRADES	W WORKS &	100,000	104,000	232,763	71,596	26,000	385,930	21,000	-	-	50,000	991,289

Note: Full details of the works included are available from the 10 Year Projected Capital Program.xls



Appendix H Summary of Projected 10 Year Renewal and Upgrading Works With SRV of 10%

TRANSPORT INFRASTRUCTURE		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	Renewals =	2,298	1,690	1,321	1,362	1,200	1,347	1,471	252	437	252	11,630
Total Program	Upgrades =	100	104	233	72	26	386	21	-	-	50	992
Summary in \$ 000	Annual Total =	2,398	1,794	1,554	1,434	1,226	1,733	1,492	252	437	302	12,622
Renewals												
Urban Rehab		496,000	59,000	271,000	82,000	416,000	202,000	178,000	-	-	-	1,704,000
Urban Reseals		450,000	313,000	90,479	103,591	187,500	-	212,868	76,300	49,213	29,591	1,512,542
Rural Rehab		456,175	546,000	473,000	711,000	192,000	675,000	182,000	-	-	-	3,235,175
Rural Reseals		250,000	166,004	27,000	167,000	185,000	215,000	250,000	176,000	50,000	50,000	1,536,004
Gravel Re-sheeting		-	-	-	-	-	-	-	-	-	-	-
Kerb and Gutter		72,000	323,000	166,000	72,000	76,000	127,000	47,000	-	72,000	72,000	1,027,000
Footpaths		210,743	-	75,000	97,000	-	49,288	38,000	-	96,000	100,000	666,031
Cycleways		83,000	153,000	97,000	19,500	33,000	43,000	-	-	-	-	428,500
Bridges		230,000	113,000	116,000	110,000	67,000	-	563,000	-	170,000	-	1,369,000
Other Assets (Carpark	(S)	50,400	17,000	6,000	-	43,257	36,000	-	-	-	-	152,657
TOTAL RENEWALS		2,298,318	1,690,004	1,321,479	1,362,091	1,199,757	1,347,288	1,470,868	252,300	437,213	251,591	11,630,909
New Works & Upgrad	des											
Urban Upgrade		50,000	-	-	-	-	-	-	-	-	-	50,000
Rural Upgrade		-	-	-	-	-	385,930	-	-	-	-	385,930
Footpaths		-	104,000	95,763	71,596	26,000	-	21,000	-	-	-	318,359
Cycleways		50,000	-	137,000	-	-	-	-	-	-	50,000	237,000
TOTAL NEW/UPGRAD	DES	100,000	104,000	232,763	71,596	26,000	385,930	21,000	-	-	50,000	991,289



Appendix I Abbreviations

AAAC	Average annual asset consumption
AMP	Asset Management Plan
ARI	Average recurrence interval
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
DoH	Department of Health
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life cycle cost
LCE	Life cycle expenditure
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SS	Suspended solids

vph Vehicles per hour



Appendix J Glossary

Annual service cost (ASC)

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class

Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

Asset management

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Assets

Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*

The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**

Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure

Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretional expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition

Capital new expenditure

Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure

Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or subcomponents of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the



same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretional and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost "As New" (CRC)

The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic maintenance**

Replacement of higher value components/subcomponents of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.



Greenfield asset values**

Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for: (a) use in the production or supply of goods or services or for administrative purposes; or (b) sale in the ordinary course of business (AASB 140.5)

Level of service

The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost**

The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure**

The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Expenditure to give an initial indicator of life cycle sustainability.

Loans / borrowings

Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

Maintenance and renewal gap

Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).

Maintenance and renewal sustainability index

Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Maintenance expenditure

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

An item is material is its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.



Modern equivalent asset

A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operating expenditure

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

Planned maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS 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.

PMS score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption*

A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*

A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal

expenditure/DA).

Rate of annual asset upgrade*

A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Reactive maintenance

Unplanned repair work that carried out in response to service requests and management/supervisory directions.

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal

See capital renewal expenditure definition above.

Residual value

The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.



Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*

A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that are still available for use in providing services (DRC/DA).

Strategic Management Plan (SA)**

Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.

Value in use

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows, where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary

Note: Items shown * modified to use DA instead of CRC

Additional glossary items shown**