Greater Taree City Council

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Strategic Asset Management Plan

Transport and Drainage

Version 2

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1. EXECUTIVE SUMMARY

Context

Greater Taree City Council is responsible for the acquisition, operation, maintenance, renewal and disposal of an extensive range of general fund physical assets with a replacement value in nearing $1.2 billion.

These assets include:

- Roads sealed and Unsealed
- Bridges including Culverts
- Footpaths
- Stormwater Drainage

These assets contribute to provision of services essential to our community's quality of life.

Like many NSW councils, Taree experiences a funding infrastructure backlog due to aging infrastructure. Council has minimal revenue growth giving rise to persistent underlying operating deficits and constraints on renewal expenditure. Hence a funding gap between current and required capital expenditure. Therefore, long term Capital Plans and Long Term Financial Planning is required to ensure that service delivery is sustainable

This Strategic Asset Management Plan (SAMP) takes the organisational objectives in our Strategic Plan, develops the asset management objectives, principles, framework and strategies required to achieve our organisational objectives. The plan summarises activities and expenditure projections from individual asset management plans to achieve the asset management objectives

Current situation

The objective of the SAMP is to describe how Council will meet its commitment to asset management as documented in the Asset Management Policy (see Appendix A). It will achieve this by developing a structured set of Strategic Actions aimed at enabling Council to improve its asset management practices and service delivery needs.

Our aim is to achieve a 'core' maturity for asset management activities by and continue maturity improvement where the benefits exceed the costs. Improvement tasks and target dates have been identified and documented in Table 7.2 Improvement plan.

Strategic Asset Management Plan Methodology

This SAMP has been developed in line with Council's proposed special rate variation. The SAMP contains two scenarios as outlined below.

Scenario 1 compares council's required asset renewals, accumulated backlog and additional operations and maintenance to control high risk assets against council's Long term Financial Plan. Scenario 1 represents council's current funded position with respect to the management of physical assets.

Scenario 2 considers the accumulated consequences of additional revenue to address council's unfunded high risk assets (Backlog) including the additional operations and maintenance to manage these risks. Scenario 2 has been developed based on Council's proposed special rate variation and additional external funding sought for bridges.

Scenario 1 is a reflection of the actual funding available. The difference between Scenario 1 and Scenario 2 represents "what we can't do". The discussion about this "gap" will lead us into a much better informed community discussion about what are achievable and acceptable service levels, as well as giving a focus on managing risk.

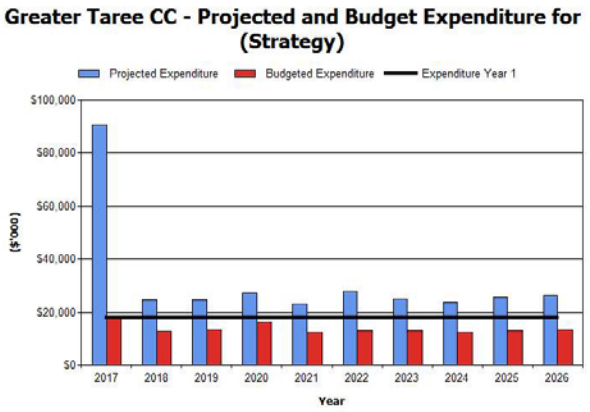
Additional modelling excluding year 1 backlog has also been undertaken for each scenario. This modelling shows the relations between future planned and projected outlays only. The results of this additional modelling are discussed throughout the plan with key results included in Appendix B.

What does it Cost?

The forecast of the projected outlays necessary to provide the services covered by this SAMP includes operations, maintenance, capital renewal and upgrade of existing assets. Over the 10 year planning period the projected outlays is $319.388M or $31.9M on average per year.

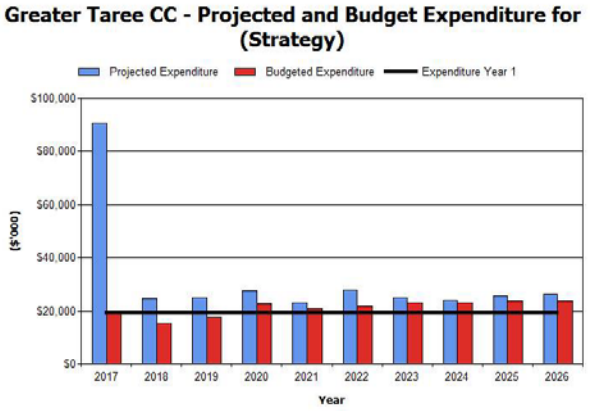
Estimated available funding (scenario 1) for this period is $138.9M or $13.9M on average per year which is 43% of the cost to provide the service. This is a funding shortfall of -$18M on average per year. This modelling includes backlog which is projected to be $58.7 M as at 30th June 2016.

Projected expenditure required to provide services in the SAMP compared with planned expenditure currently included in the Long Term Financial Plan are shown in the following graph.



This modelling can be compared to scenario 2 which shows Over the 10 year planning period the projected outlays is $319.8M or $31.9M on average per year.

Estimated available funding including the special rate variation for this period is $210.8M or $21.1M on average per year which is 66% of the cost to provide the service. This is a funding shortfall of -$10.8M on average per year. This is shown in the following graph.



What we will do

Council has previously been driven by funding availability and been reactive to customer requests. A shift towards a strategic approach to effective asset management provides better accountability, sustainability, risk management, service management and financial efficiency.

Our aim is to provide the services needed by the community in a financial sustainable manner. Achieving financial sustainability requires balancing service levels and performance with cost and risk.

It may not be possible to meet all expectations for services within current financial resources. We will continue to work with our community to ensure that needed services are provided at appropriate levels of service at an affordable cost while managing risks.

What we have deferred

We do not have enough funding to provide all services at the desired service levels or provide new services. Major initiatives and projects have been deferred for the next 10 years under present funding. These include

- Major realignment and construction of strategic roads in the road network
- Fulfilling the recommendations of various strategic asset plans such as cycleways, footpaths, traffic facilities and others.
- Upgrading storm water drainage networks to lessen the impact of major storm events
- Other expectations for new and improved infrastructure as requested by the community

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:

- Road reseals not done in time resulting in water damage to pavement.
- Potential bridge or bridge component failure
- Damaged footpaths with the potential to cause trips and falls in high pedestrian areas
- Pavement damage due to water penetration caused by failed K&G
- Aging timber bridges requiring major replacement or repair

We will endeavour to manage these risks within available funding by Implementation of asset management systems, to provide a sound platform for understanding the condition, maintenance and replacement schedule for all our assets, which will in turn inform our budgeting process.

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:

- We need to regularly engage with our community to understand the level of service they expect and to help them understand the level of service we

can deliver. This information is important in setting priorities and determining resource allocation.

- 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 assets,
- Making trade-offs between service levels and costs to ensure that the community receives the best return from assets,
- Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs,
- Consulting with the community to ensure that services and costs meet community needs and are affordable,
- Developing partnership 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 asset intensive services.

2. ASSET MANAGEMENT STRATEGY

2.1 Asset Management System

Asset management enables an organisation to realise value from assets in the achievement of organisational objectives, while balancing financial, environmental and social costs, risk, quality of service and performance related to assets.[1]

An asset management system is a set of interrelated and interacting elements of an organisation to establish the asset management policy and asset management objectives, and the processes, needed to achieve those objectives. An asset management system is more than a 'management information system'. The asset management system provides a means for coordinating contributions from and interactions between functional units within an organisation.[2]

The asset management system includes:

- The asset management policy
- The asset management objectives as projected by the Long Term Financial Plan
- The strategic asset management plan (this document)
- The various asset management plans, which are implemented in
    - Operational planning and control
    - Supporting activities
    - Control activities
    - Other relevant processes.[3]

2.1.1 Asset Management Policy

The asset management policy sets out the principles by which the organisation intends applying asset management to achieve its organisational objectives.[4] Organisational objectives are the results the organisation plans to achieve, as documented in its Strategic Plan. Our adopted asset management policy is attached as Appendix A.

2.1.2 Asset Management Objectives

The asset management objectives, developed in this asset management plan provide the essential link between the organisational objectives and the asset management plan(s) that describe how those objectives are going to be achieved. The asset management objectives transform the required outcomes (product or service) to be provided by the assets, into activities typically described in the asset management plans. Asset management objectives should be specific, measureable, achievable, realistic and time bound (i.e. SMART objectives).[5]

2.1.3 Asset Management Plan

This strategic asset management plan combines our 3 major engineering asset categories. It includes analysis at sub-category asset level. The purpose is to document the relationship between the organisational objectives set out in the Community Strategic Plan, Resourcing Strategy, Delivery Program,

[1] ISO, 2014, ISO 55000, Sec 2.2, p 2
[2] ISO, 2014, ISO 55000, Sec 2.5.1, p 5
[3] ISO, 2014, ISO 55002, Sec 4.1.1, p 2.
[4] ISO, 2014, ISO 55002, Sec 5.2, p 7.
[5] ISO, 2014, ISO 55002, Sec 6.2.1, p 9.

and the asset management (or service) objectives and define the strategic framework required to achieve the asset management objectives.[6]

This asset management plan encompasses the following services:

- Transport including sealed and unsealed roads
- Bridges including Culverts
- Storm water Drainage

The asset management framework incorporates strategies to achieve the asset management objectives. The strategies are developed in 4 steps:

- What assets do we have?
- Our assets and their management
- Where do we want to be?
- How will we get there?[7]

2.2 What Assets do we have?

We manage a lot of assets to provide services to our community. The assets provide the foundation for the community to carry out its everyday activities, while contributing to overall quality of life.

Table 2.2: Assets covered by this Plan

Asset Class	Description	Services Provided
Transport	Sealed Road Unsealed Road Footpaths and cycleways Carparks Road furniture	The Transport assets provided by Taree Council are used to support transportation and are an important to the community and economic activities of the region.
Bridges	Concrete Bridges Timber Bridges Culverts	The bridge assets are used to support Council's road network and are an important to the community and economic activities of the region.
Drainage	Pipelines Drainage Pits Headwalls Gross Pollutant Traps and Litter Baskets	Stormwater drainage assets provide protection from flooding and minimise the impacts of stormwater runoff. Reduce impacts of pollutants carried by stormwater runoff on the receiving waters.

[6] ISO, 2014, ISO 55002, Sec 4.1.1, p 2.
[7] LGPMC, 2009, Framework 2, Sec 4.2, p 4.

2.3 Our Assets and their management

2.3.1 Asset Values

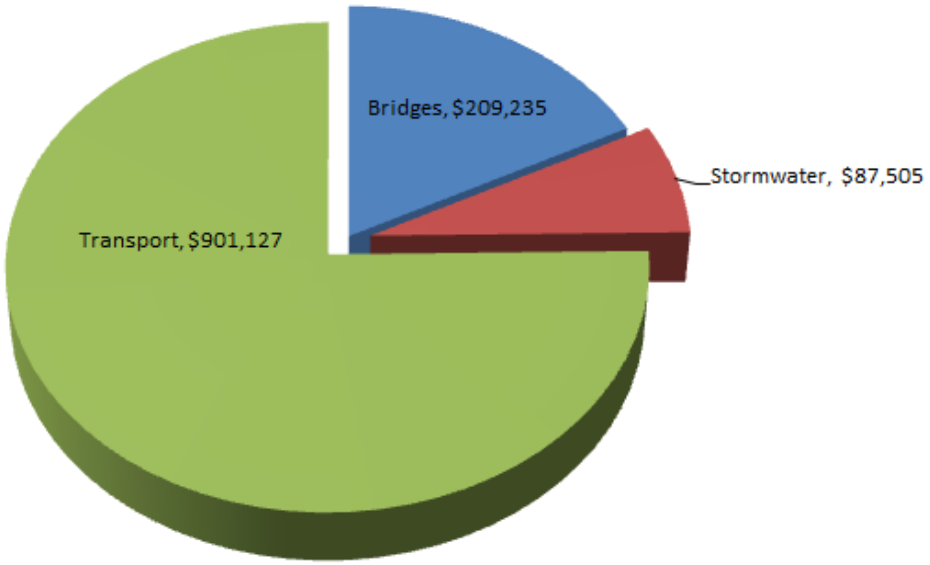
This physical assets covered by this asset management plan are shown in Table 2.3.1. These assets are used to provide services to the community.

Table 2.3.1: Assets covered by this Plan

Taree LGA - Note 9a	As at 30/6/2014		
$'000	Current Replacement Cost	Carrying Value	Depreciation Expense
Bridges	209235	136667	$72,568
Stormwater	87505	57001	$30,504
Transport	901127	532439	$368,688
TOTAL	**$1,197,867**	**$726,107**	**$471,760**

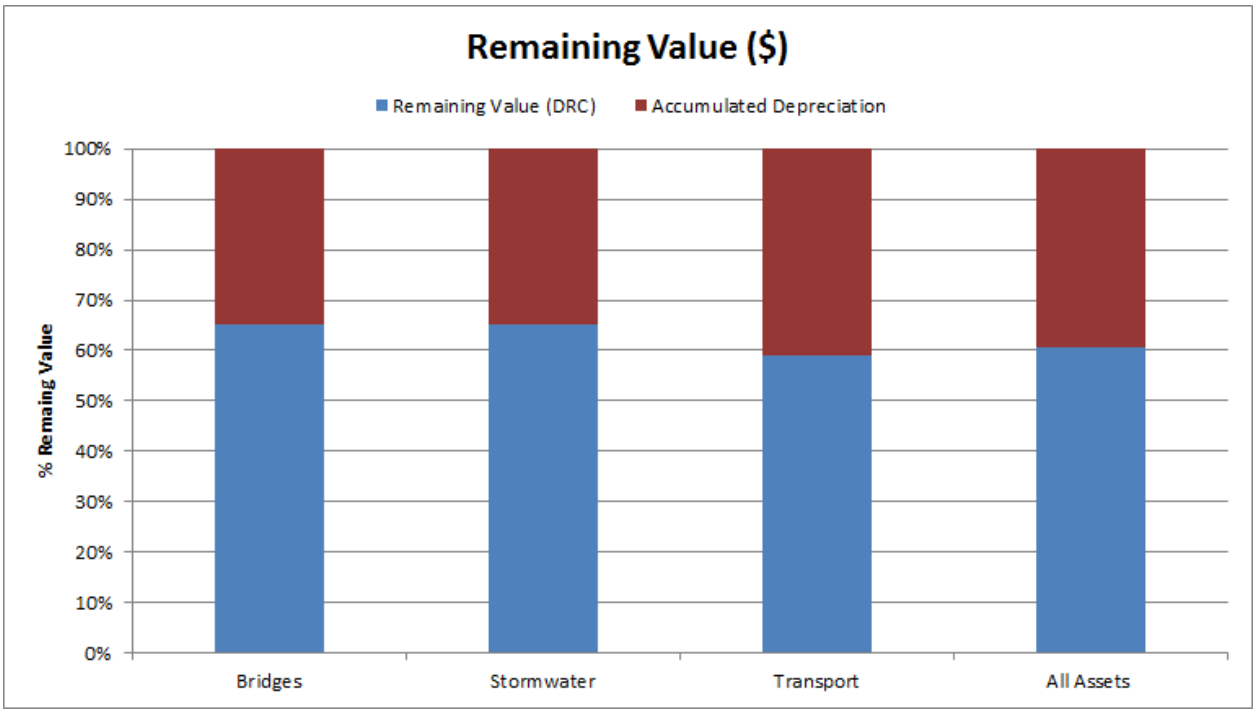
Figure 1 shows the replacement value of our assets.

Figure 1: Asset Replacement Values ($000's)



The asset consumption ratios of Council's assets (average proportion of 'as new' condition left in assets) are shown in Figure 2.

Figure 2: Asset Remaining Value



2.3.2 Asset Condition

Condition is measured using a 1 – 5 grading system[8] as detailed in Table 2.3.2 (A rating of 0 was used for assets where condition data was not held in the asset register.)

Table 2.3.2: 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

[8] IPWEA, 2011, IIMM, Sec 2.5.4, p 2|79.

Figure 3.1: Condition of Assets (%)

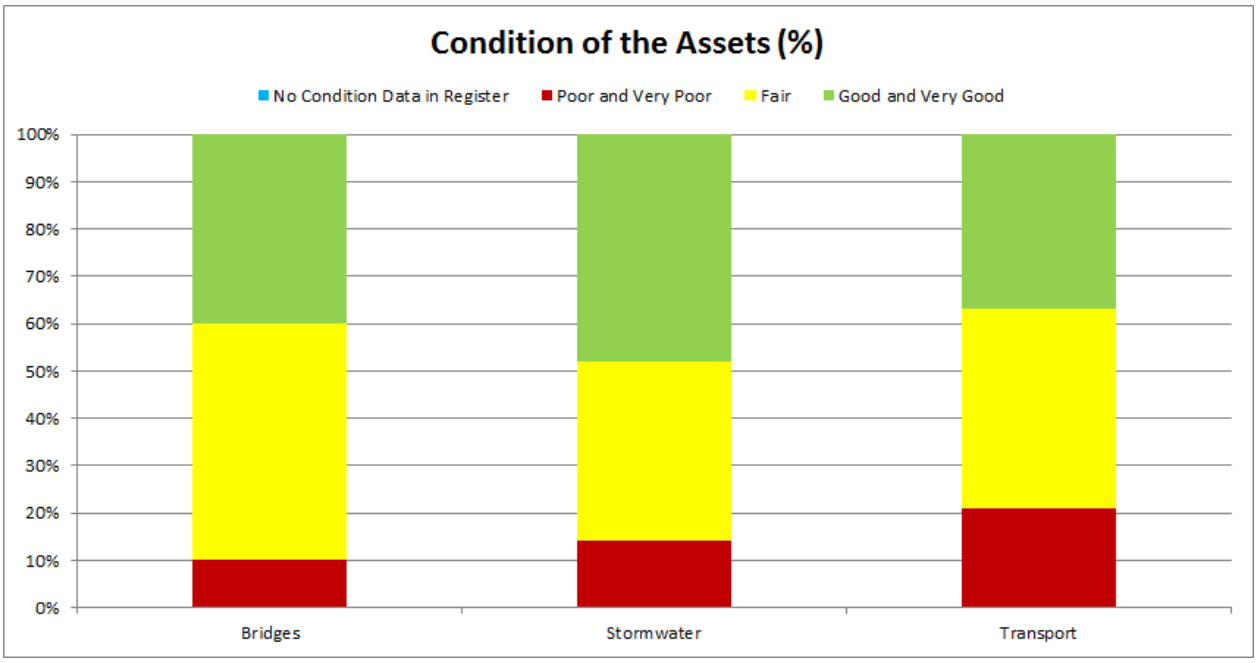
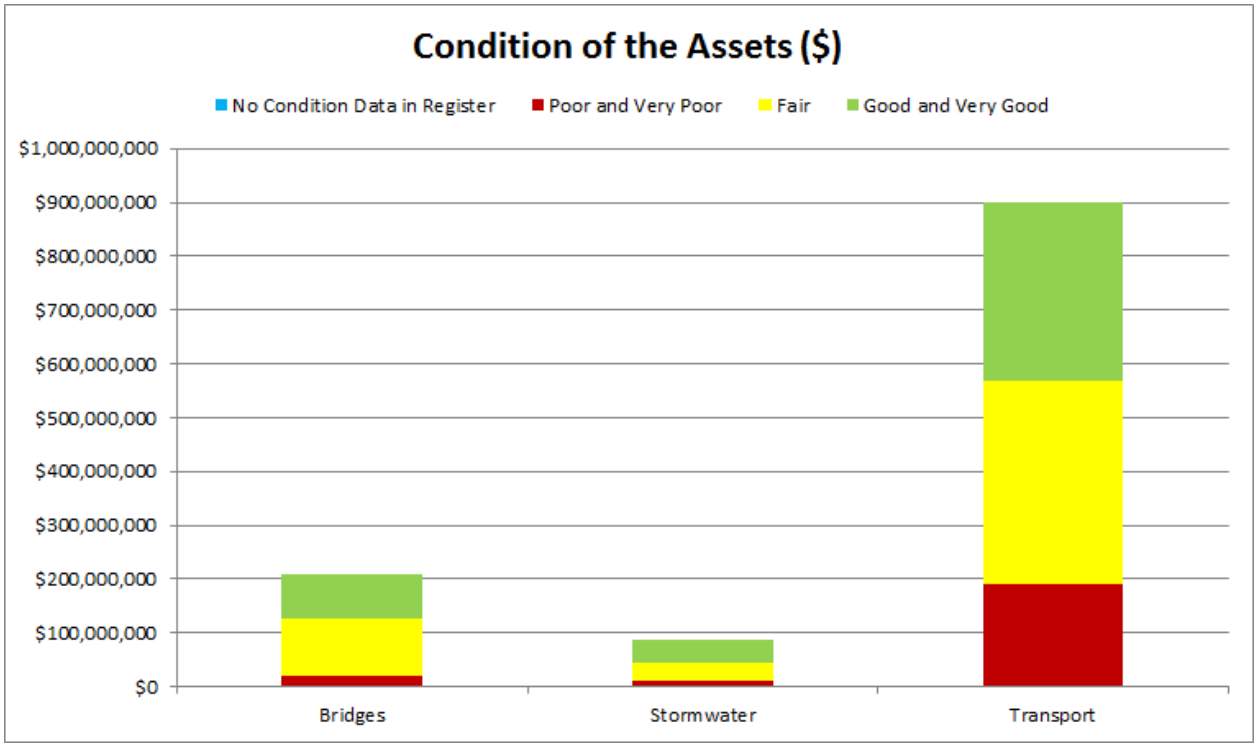


Figure 3.2: Condition of Assets ($)



2.3.3 Lifecycle Costs

Lifecycle costs (or whole of life costs) are the average annual costs that are required to sustain the service levels over the longest asset life. Lifecycle costs include operations and maintenance expenditures plus asset consumption (depreciation). Life cycle costs can be compared to lifecycle expenditure to give an indication of sustainability in service provision.

Lifecycle expenditures include operations and maintenance expenditures (excluding depreciation) plus capital renewal expenditure. The capital renewal component of lifecycle expenditure can vary depending on the timing of asset renewals.

Scenario 1

The life cycle cost for scenario 1 is $24,679,000 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 $12,953,000 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 -$11,726,000 per year (-ve = gap, +ve = surplus).

Life cycle expenditure is 52% of life cycle costs.

Scenario 2

The life cycle cost for scenario 2 is $24,728,000 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 $19,619,000 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 -$5,109,000 per year (-ve = gap, +ve = surplus).

Life cycle expenditure is 79% of life cycle costs.

The lifecycle costs and expenditures for both scenario 1 and 2 are shown in comparison in Table 2.3.3.

Table 2.3.3: Asset Lifecycle Costs – Greater Taree City Council

Life Cycle Cost (long term)'($000)	Scenario 1 ($000's)	Scenario 2 ($000's)
Life Cycle Cost (depreciation + ops. and maintenance. expenditures – 10 year average)	$24,679	$24,728
Life Cycle Exp. (Capital renewal. + operations + maintenance expenditure 10 year average)	$12,953	$19,619
Life Cycle Gap [life cycle expenditure - life cycle cost [-ve = gap]	$-11,726	$-5,109
Life Cycle Sustainability Indicator [life cycle expenditure / LCC]	52%	79%

2.3.4 Asset Management Indicators

An asset management objective is to provide the services that the community needs at the optimum lifecycle cost in a financially sustainable manner. Figure 4.1 shows the projected operations, maintenance, capital renewal, capital upgrade/new expenditure compared with financial outlays in the long-term financial plan.

Figure 4.1: Projected Operating and Capital Expenditure (Scenario 1 LTFP)

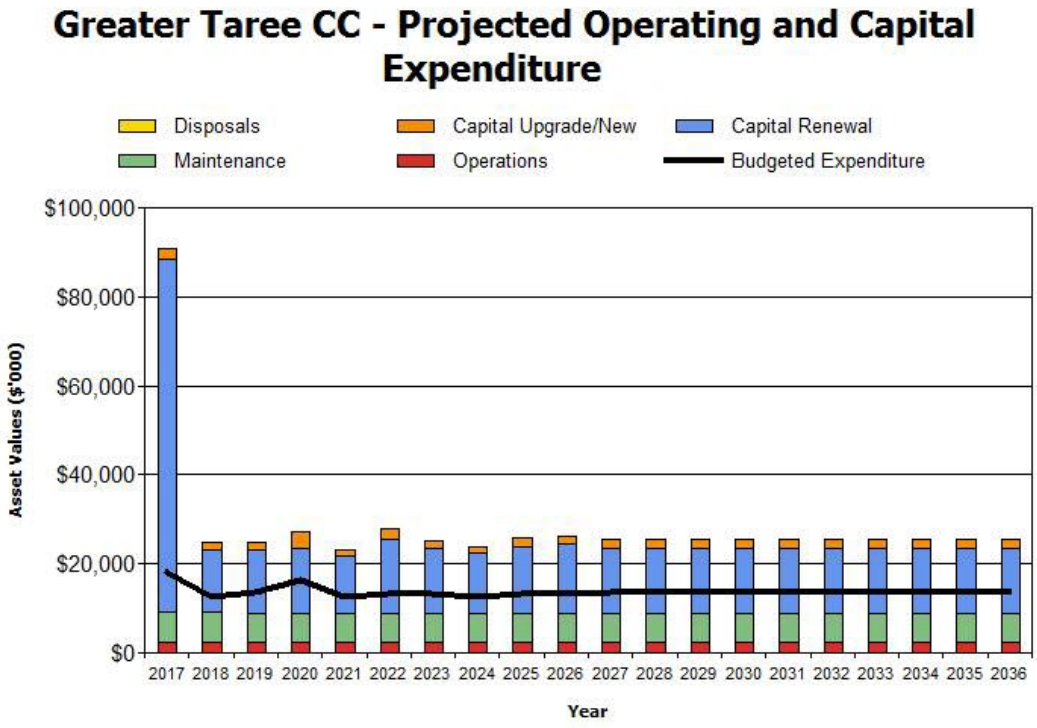
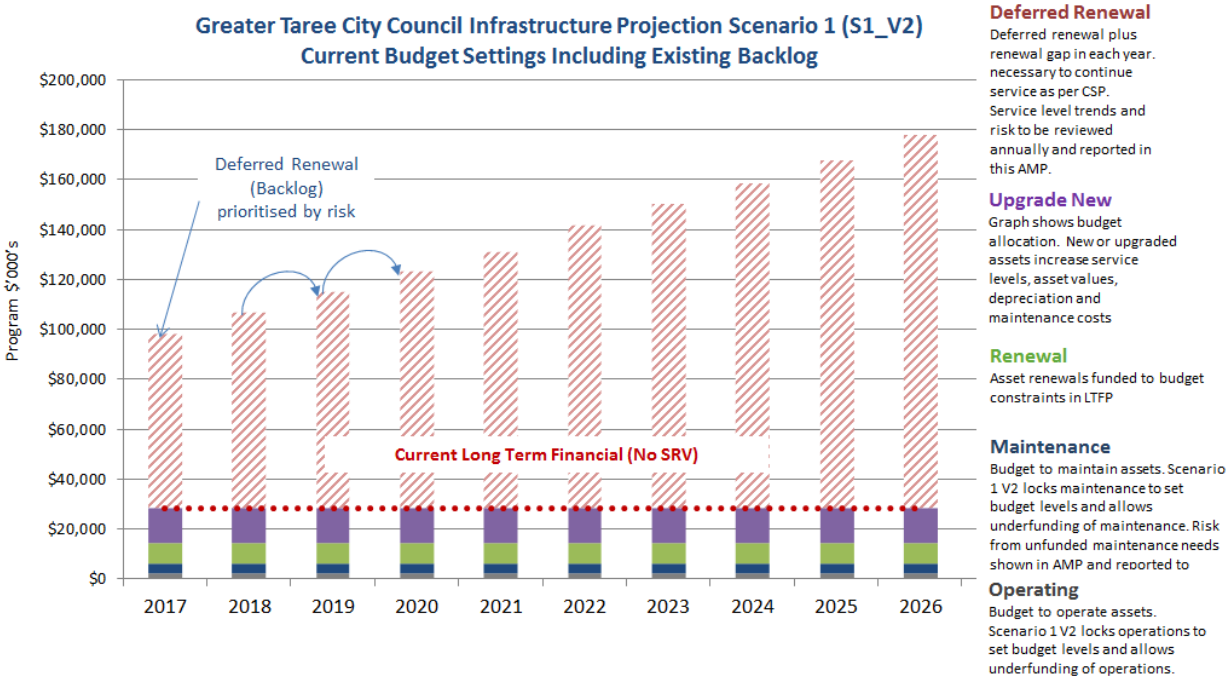


Figure 4.1a: Projected Operating and Capital Expenditure Scenario 1 (10yr Accumulated results)



Figures 4.1 and 4.1a shows projected expenditure requirements exceed current budget allocations. Subsequently under scenario 1 the existing funding gap or backlog is expected to increase from the projected $58.7m in 2016 to $151m by 2026.

Figure 4.2: Projected Operating and Capital Expenditure (Scenario 2 Including SRV)

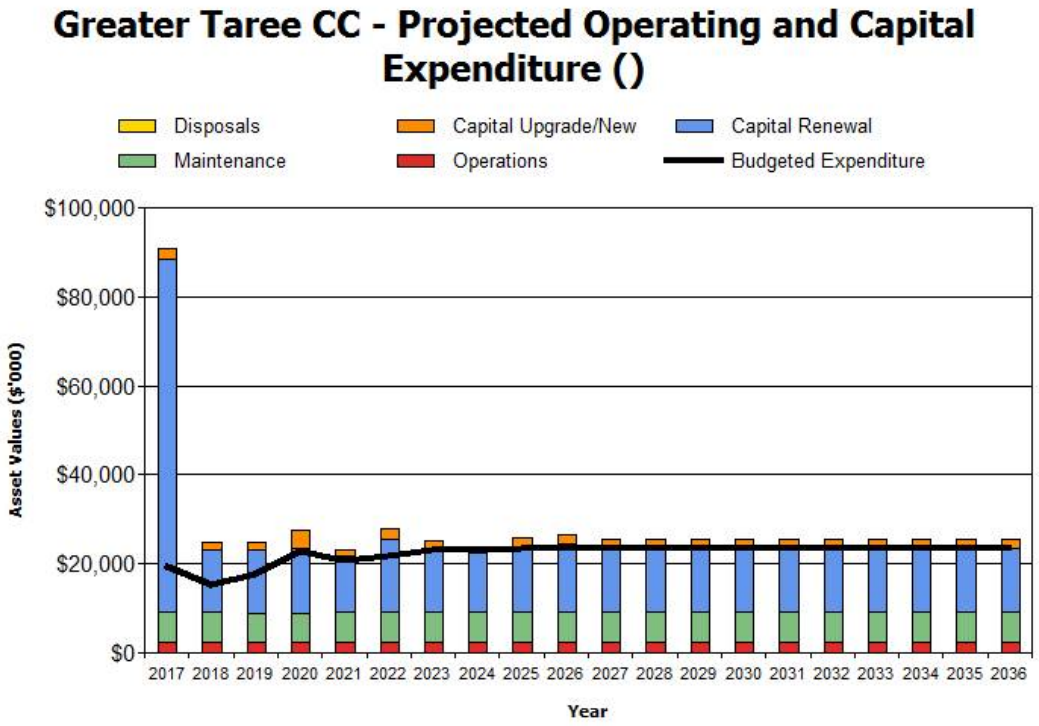
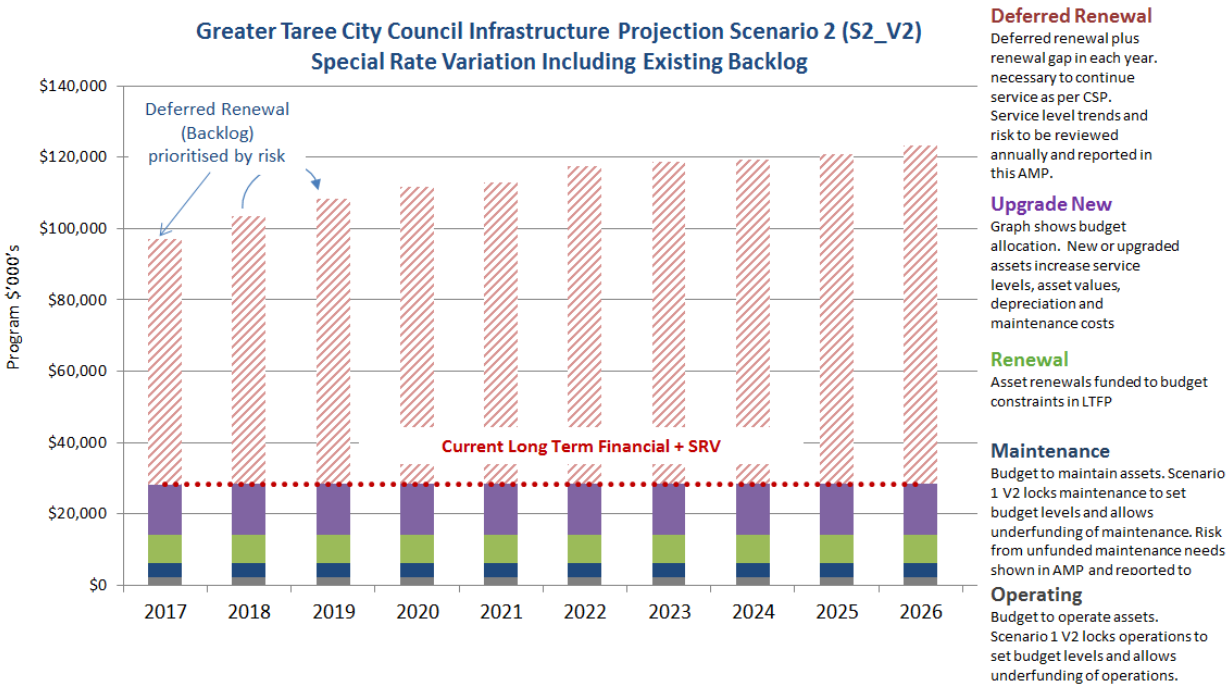


Figure 4.2a: Projected Operating and Capital Expenditure Scenario 2 (10yr Accumulated Results)



Under scenario 2, Figures 4.2 and 4.2a, the additional revenues will allow council to gradually arrest the increase in the existing back log. Whilst there will still be an increase from the projected $58.7m in 2016 to $97.1m in 2026 additional increases from then will be minimal (<2%).

The purpose of this asset management plan is to develop the strategies to achieve the asset management objectives through balancing of asset service performance, cost and risk.

2.3.5 Opportunities

We have identified opportunities relevant to the services included in this asset management plan for the future including:

- We need to regularly engage with our community to understand the level of service they expect and to help them understand the level of service we can deliver. This information is important in setting priorities and determining resource allocation.
- 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 assets,
- Making trade-offs between service levels and costs to ensure that the community receives the best return from assets,
- Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs,
- Consulting with the community to ensure that services and costs meet community needs and are affordable,
- Developing partnership 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 asset intensive services.

2.3.6 Asset and Financial Management Maturity

We have taken steps to improve our asset and financial management performance including assessing our asset management maturity against the 3 Frameworks of the Local Government Financial Sustainability National Consistent Frameworks. The National Frameworks on Asset Planning and Management and Financial Planning and Reporting define 10 elements. 11 core competencies have been developed from these elements[9] to assess 'core' competency under the National Frameworks. Council's maturity assessment for the core competencies is summarised in Figure 5. The current maturity level is shown by the blue bars. The maturity gap to be overcome for Council to achieve a core financial and asset management competency is shown by the red bars.

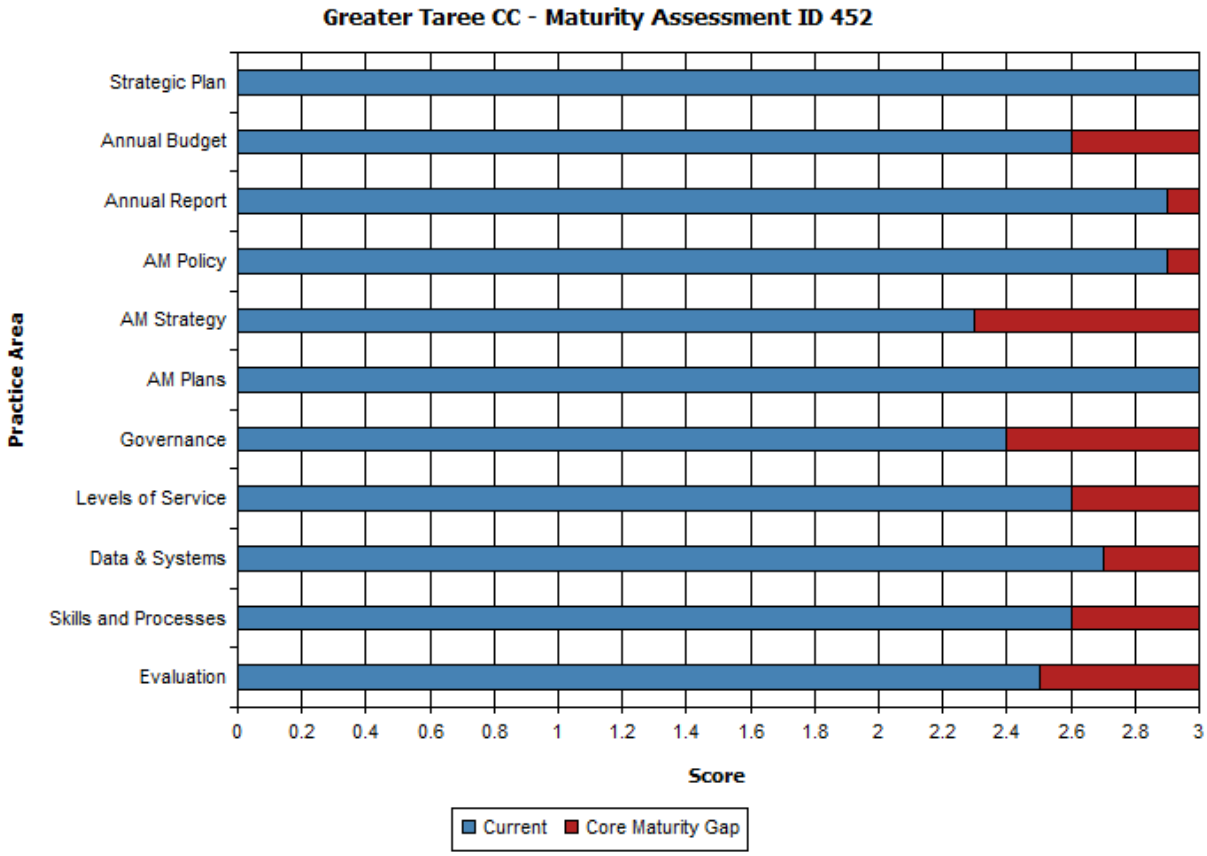


Figure 5: Maturity Assessment

Following significant work over the last 3 years a core level of maturity is now achievable within the next 12-18 months. Council has an improvement plan in place for all areas of practice and a future maturity audit will be scheduled to validate that core maturity has been achieved.

[9] Asset Planning and Management Element 2 *Asset Management Strategy and Plans* divided into Asset Management Strategy and Asset Management Plans competencies.

2.4 Where do we want to be?

2.4.1 Community Expectations

The organisation exists to provide services to its community. Some of these services are provided by infrastructure assets.

We have identified community expectations for service levels to be generally consistent with current levels of service

We have acquired physical assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in managing these 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. Community engagement is necessary to ensure that informed decisions are made on future levels of service and costs and that service and risk consequences are known and accepted by stakeholders.

2.4.2 Organisational Objectives

The community and Councillors set priorities for the services we deliver, and the level to which we deliver them. How we operate as an organisation also influences how we deliver services, and our four key organisational goals, with specific actions to address areas for improvement.[10]

This asset management plan is prepared under the direction of the organisation's vision, mission, goals and objectives.

Our Mission is:

"We believe in the future of the Manning Valley

And we are committed to working together

To create a regional centre that is prosperous and sustainable

To nurture a community that is caring, healthy and vibrant

And to preserve this beautiful, rare and special place for the generations that follow"

Our values are:

- Looking after what we've got
- Respecting the environment
- A strong economy
- A great lifestyle
- Getting things done

[10] Resourcing Strategy – Greater Taree City Council

The organisation objectives developed for priority areas are shown in Table 2.4.2.

Table 2.4.2: Strategic Priority Areas and Organisational Objectives[11]

Corporate Direction	Outcome	Objectives
To improve the current standard of infrastructure and plan for the future needs of the community	Transport assets network will be planned, managed and funded to meet accessibility needs of the community at an agreed level of service.	1.1 Consider infrastructure implications of new development, and ensure whole-of-life costings are assessed. 1.2 Strengthen Council's asset management capability within the Organisation, including implementation of an asset management system. 1.3 Resource and implement a prioritised maintenance programme for all public assets, incorporating a risk management approach. 1.4 Develop a Graffiti and Vandalism Management Strategy. 1.5 Encourage community involvement in the design and care of community assets. 1.6 Continue to engage with the community in relation to acceptable service levels for all public assets. 2.4 Review and improve road maintenance practices and procedures. 2.5 Advocate for federal and state government funding assistance towards improved regional roads and bridges, and public transport.
	Transport assets network to be managed and maintained in a safe, efficient and most cost effective way to minimise user and operational life cycle costs.	
	To improve the current standard of infrastructure and plan for the future needs of the community.	
	Ensure the road system meets the transport needs of the community.	
	Encourage the community to consider use of alternative and sustainable transport.	

2.5 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 assets used to provide the services. Maintenance of service levels for physical assets requires appropriate investment over the whole of the asset life cycle. To assist in achieving this balance, we aspire 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 plan are to:

- ensure that our services are provided in an economically optimal way, with the appropriate level of service to residents, visitors and the environment determined by reference to our financial sustainability
- safeguard our 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 our operations

[11] CSP/Resourcing Strategy – Greater Taree City Council

- 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/CEO reporting to council/board on development and implementation of the Asset management plan, Asset Management Plan and Long Term Financial Plan.

Strategies to achieve this position are outlined in Section 2.6.

2.6. How will we get there?

The asset management plan proposes strategies to enable the organisational objectives and asset management policies to be achieved.

Table 2.6: Asset Management Strategies

No	Strategy	Desired Outcome
1	Move from annual budgeting to long term financial planning.	The long term implications of all services are considered in annual budget deliberations.
2	Develop and annually review asset management plans and asset management plan 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 and maintain a long term financial plan covering 10 years incorporating asset management plan expenditure projections with a sustainable funding position outcome.	Sustainable funding model to provide our 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, asset management plan and long term financial plans after adoption of annual budgets. Communicate any consequence of funding decisions on service levels and service risks.	We and the community are aware of changes to service levels and costs arising from budget decisions.
6	Report our financial position at Fair Value in accordance with Australian Accounting Standards, financial sustainability and performance against organisational objectives in Annual Reports.	Financial sustainability information is available for Council/Board and the community.
7	Ensure council/board 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 our 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 realise 'core' maturity for the financial and asset management competencies within 2 years.	Improved financial and asset management capacity within the organisation.
11	Report six monthly to Council/Board by Audit Committee/CEO on development and implementation of asset management plan, AM Plans and long term financial plans.	Oversight of resource allocation and performance.

2.7 Asset Management Improvement Plan

The tasks required achieving a 'core' financial and asset management maturity are shown in the asset management improvement plan in Section 7.2

2.8. Consequences if actions are not completed

There are consequences for the Council if the improvement actions are not completed. These include:

- Inability to achieve strategic and organisational objectives
- Inability to achieve financial sustainability for the organisation's operations
- Current risks to service delivery are likely to eventuate and response actions may not be appropriately managed
- We may not be able to accommodate and/or manage changes in demand for asset intensive services.

3. LEVELS OF SERVICE

3.1 Consumer Research and Expectations

The expectations and requirements of various stakeholders were considered in the preparation of asset management plans summarised in this asset management plan.

3.2 Organisational Objectives

Sections 2.4.2 and 2.5 of this strategic asset management plan reported the organisational objectives from the Strategic Plan and asset management objectives developed from the organisational objectives.

The organisational and asset management objectives provide focus for the community and technical level of service tables in Section 3.4.

3.3 Legislative Requirements

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

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments. The purposes of this Act are as follows: (a) to provide the legal framework for an effective, efficient, environmentally responsible and open system of local government in New South Wales, (b) to regulate the relationships between the people and bodies comprising the system of local government in New South Wales, (c) to encourage and assist the effective participation of local communities in the affairs of local government, (d) to give councils: • the ability to provide goods, services and facilities, and to carry out activities, appropriate to the current and future needs of local communities and of the wider public • the responsibility for administering some regulatory systems under this Act • a role in the management, improvement and development of the resources of their areas, (e) to require councils, councillors and council employees to have regard to the principles of ecologically sustainable development in carrying out their responsibilities. The land management provisions of the Act require that Council prepare plans of management for all community land. The plan of management identifies the management objectives for the land category, performance indicators and performance measures to meet the objectives identified.
Local Government Amendment (Planning and Reporting) Act 2009	Local Government Amendment (Planning and Reporting) Act 2009 includes the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.

Legislation	Requirement
Disability Discriminations Act, 1992	The Federal *Disability Discrimination Act 1992* (D.D.A.) provides protection for everyone in Australia against discrimination based on disability. It encourages everyone to be involved in implementing the Act and to share in the overall benefits to the community and the economy that flow from participation by the widest range of people. (a) to eliminate, as far as possible, discrimination against persons on the ground of disability in the areas of: (i) work, accommodation, education, access to premises, clubs and sport; and (ii) the provision of goods, facilities, services and land; and (iii) existing laws; and (iv) the administration of Commonwealth laws and programs; and (b) to ensure, as far as practicable, that persons with disabilities have the same rights to equality before the law as the rest of the community; and to promote recognition and acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community.
Work Health & Safety Act 2011	Sets out roles and responsibilities to secure the health, safety and welfare of persons at work and covering injury management, emphasising rehabilitation of workers particularly for return to work. Council is to provide a safe working environment and supply equipment to ensure safety.
Environmental Planning and Assessment Act 1979	An Act to institute a system of environmental planning and assessment for the State of New South Wales. Among other requirements the Act outlines the requirement for the preparation of Local Environmental Plans (LEP), Development Control Plans (DCP), Environmental Impact Assessments (EIA) and Environmental Impact Statements.
Plant Protection Act 1989	This act sets out requirements in respect to Flora Protection
Environmental Protection Act 1994	This act sets out requirements in respect to environmental protection
Threatened Species Conservation Act, 1995	An Act to conserve threatened species, populations and ecological communities of animals and plants. Under the terms of this Act Council is required to ensure the long term survival of the species identified.
Rivers and Foreshores Improvements Act, 1948	An Act to provide for the carrying out of works for the removal of obstructions from and the improvement of rivers and foreshores and the prevention of erosion of lands by tidal and non-tidal waters
Protection of the Environment Operations Act 1997	Council is required to exercise due diligence to avoid environmental impact and among others are required to develop operations emergency plans and due diligence plans to ensure that procedures are in place to prevent or minimise pollution.
National Parks and Wildlife Act (1974)	An Act relating to the establishment, preservation and management of national parks, historic sites and certain other areas and the protection of certain fauna, native plants and Aboriginal objects

Legislation	Requirement
Native Vegetation Act 2003	This Act regulates the clearing of native vegetation on all land in NSW, except for excluded land listed in Schedule 1 of the Act. The Act outlines what landowners can and cannot do in clearing native vegetation.
Public Works Act 1912	Sets out the role of Council in the planning and construction of new assets.
Road Transport (General) Act 2005	Provides for the administration and enforcement of road transport legislation. It provides for the review of decisions made under road transport legislation. It makes provision for the use of vehicles on roads and road related areas and also with respect to written off and wrecked vehicles.
Road Transport (Safety and Traffic Management) Act 1999	Facilitates the adoption of nationally consistent road rules in NSW, the Australian Road Rules. It also makes provision for safety and traffic management on roads and road related areas including alcohol and other drug use, speeding and other dangerous driving, traffic control devices and vehicle safety accidents.
Roads Act 1993	Sets out rights of members of the public to pass along public roads, establishes procedures for opening and closing a public road, and provides for the classification of roads. It also provides for declaration of the RTA and other public authorities as roads authorities for both classified and unclassified roads, and confers certain functions (in particular, the function of carrying out roadwork) on the RTA and other roads authorities. Finally it provides for distribution of functions conferred by this Act between the RTA and other roads authorities, and regulates the carrying out of various activities on public roads.
Local Government (Highways) Act 1982	An Act to consolidate with amendments certain enactments concerning the functions of the corporations of municipalities with respect to highways and certain other ways and places open to the public.
NSW Road Rules 2008	A provision of road rules that are based on the Australian Road Rules so as to ensure that the road rules applicable in this State are substantially uniform with road rules applicable elsewhere in Australia.
Valuation of Land Act 1916	This act sets out requirements in respect Land Valuation
Crown Lands Act, 1989	An Act to provide for the administration and management of Crown land in the Eastern and Central Division of the State of NSW Council has large holdings of Crown land under it care, control and management.
Heritage Act, 1977	An Act to conserve the environmental heritage of the State. Several properties are listed under the terms of the Act and attract a high level of maintenance cost, approval and monitoring.
Building Code of Australia	The goal of the BCA is to enable the achievement of nationally consistent, minimum necessary standards of relevant, health, safety (including structural safety and safety from fire), amenity and sustainability objectives efficiently.
Building Fire and Safety Regulation 1991	This Act sets out the regulations for things such as means of escape, Limitation of people in buildings, Fire and evacuation plans and testing of special fire services and installations.

Legislation	Requirement
Electrical Safety Act 2002	This act sets out the installation, reporting and safe use with electricity
Building Regulation 2003	This act sets out requirements in respect to Building Requirements
Plumbing and Drainage Act 2002	This act sets out requirements in respect to Plumbing Requirements
Rural Fires Act, 1997	An Act to establish the NSW Rural Fire Service and define its functions; to make provision for the prevention, mitigation and suppression of rural fires. Under the terms of this Act Council is required to mitigate any fire that emanate from bushland.
Dangerous Goods Safety Management Act 2001	This act sets out the safe use, storage and disposal of dangerous goods
Fire and Rescue Service Act 1990	This act sets out requirements in respect to Emergency Services for Fire and Rescue
Public Records Act 2002	This act sets out requirements in respect maintaining Public Records
Surveillance Devices Act	This act sets out requirements in respect use of Surveillance Devices
Civil Liability Act, 2002	An Act to make provision in relation to the recovery of damages for death or personal injury caused by the fault of a person
Companion Animals Act, 1998	An Act to provide for the identification and registration of companion animals and for the duties and responsibilities of their owners. Under the terms of the Act Council is required to provide and maintain at least one off leash area. It currently has eleven areas identified as off leash.
Rural Fires Act, 1997	An Act to establish the NSW Rural Fire Service and define its functions; to make provision for the prevention, mitigation and suppression of rural fires. Under the terms of this Act Council is required to mitigate any fire that emanate from bushland.

3.4 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 usage appropriate to capacity?

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 availability, cleansing, mowing, etc.
- Maintenance – the activities necessary to retain an 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 road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),

- Upgrade – the activities to provide an 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).

Service managers plan, implement and control technical service levels to influence the customer service levels.[12]

Together the community and technical levels of service provide detail on service performance, cost and whether service levels are likely to stay the same, get better or worse.

Table 3.4: Treatment Types

TREATMENTS	
Safety	Function
Road Safety treatments are primarily aimed at ensuring the road is "safe" for its intended purpose and that the user is aware of the condition of the road and can reasonably be expected to drive safely to those conditions. This may mean driving at a reduced speed or travelling over a rougher surface.	Road Function treatments are primarily aimed at renewing the road (or a part of the road) at the end of its useful life ie once a road has reached the end of its serviceable life, the old road is replaced 'like for like' to return it to its original as-new condition. Improvements above and beyond its original as-new condition (such as widening) are considered an upgrade.
Example Treatments:	Example Treatments:
Maintenance - Line Marking	Renewal - Gravel Road Resheeting
Maintenance - Roadside Vegetation Management	Renewal - Heavy Patching
Maintenance - Drainage Maintenance	Renewal - Resurfacing ("reseal")
Maintenance - Pothole Response	Renewal - Rehabilitation / Reconstruction
Maintenance – Gravel Road Patch Gravelling	Upgrade – widening, curve realignment, drainage improvements
Maintenance - Gravel Road Patrol Grading	Upgrade – sealing a gravel road (growth and improvement)

[12] IPWEA, 2011, IIMM, p 2.22

Table 3.5: Maintenance Treatment Definitions

TREATMENTS DEFINITIONS		
Treatment	Description/Purpose	Example (Photo)
Maintenance - Line Marking	Line marking on the edge and in the middle of sealed roads ensures the clear delineation of individual traffic lanes for all drivers. Line marking assists drivers by defining the width of the road and provides guidance on the road alignment. At night or in poor visibility, road marking acts as an additional navigation aid by showing where drivers should be travelling and highlighting changes in direction.	
Maintenance - Roadside Vegetation Management	The management of vegetation facilitates the line-of-sight or the visibility of changes in road direction, oncoming traffic or obstacles for all drivers. This is especially important around tight corners or on narrow roads with overhanging vegetation. Mountainous or forested areas are particularly susceptible, however long grass in open farm land can also be an issue.	
Maintenance - Drainage Management	Road side drainage includes constructed kerb and gutter (typically found in urban streets) or open table drains. Table drains can be as simple as shallow grassed swales beside the road or they can be constructed and lined with concrete, rock or even a bitumen seal. Erosion of unlined table drains presents both an environmental and traffic safety concern, while damaged kerb and gutter or blocked piped drainage presents both a safety and amenity concern. Maintaining correctly working roadside drains ensures that water falling on the road can be efficiently and effectively removed and carried away.	

	Ponding water damages the road pavement by making it soft, leading to potholes and increasing its rate of deterioration. Ponding water can also present a risk to road users by increasing the potential of aquaplaning.	
Maintenance - Pothole Response	Potholes usually occur due to a crack in the sealed surface of a road allowing moisture to enter the pavement. Patching aims to repair the surface holes within a timely manner in order to improve traffic safety and stop water from further destroying the underlying pavement.	
Maintenance – Gravel Road Patch Gravelling	Gravel patching is the function of resurfacing a gravel road due to the loss of appropriate pavement materials resulting from degradation, climatic conditions (wind and rain), scour and traffic abrasion.	
Maintenance – Gravel Road Patrol Grading	Unsealed roads require regular grading of the gravel surface in order to restore the shape of the road to remove potholes, corrugations and other defects to provide a dense, smooth wearing surface and adequate drainage.	

Table 3.6: Renewal Treatment Definitions

TREATMENTS DEFINITIONS		
Treatment	Description/Purpose	Example
Renewal - Gravel Road Resheeting	Gravel Resheeting targets repairs to pavement failures by either excavating existing defects and replacing with suitable materials or modifying existing failed areas by stabilisation.	
Renewal - Heavy Patching	Heavy patching targets repairs to pavement failures by either excavating existing defects and replacing with suitable materials or modifying existing failed areas by stabilisation.	
Renewal – Resurfacing ("reseal")	Renewal aims to return a deteriorated road to its original as-new condition, i.e. 'like-for-like replacement, however it does not aim to make it any wider or straighter than before i.e. there is no "Upgrade" (refer below). Resealing or Resurfacing is the process of applying a bitumen and aggregate to the surface of a road in order to water proof the underlying pavement. It also ensures a dust free, skid resistance surface which permits safe travel and improves riding qualities and comfort for drivers.	 
Renewal – Rehabilitation / Reconstruction	Renewal aims to return a deteriorated road to its original as-new condition, i.e. 'like-for-like replacement, however it does not aim to make it any wider or straighter than before i.e. there is no "Upgrade" (refer below). Rehabilitation utilises the existing road material, adding some stabilising agent then re-compacting it back to its original as-new condition. Reconstruction aims to achieve a similar outcome, but may remove and replace the old road pavement or build a new	

	pavement on top of the old. Smoother surface Same lanes width Same shoulders Same corner Better delineation	

Table 3.7: Upgrade Treatment Definitions

TREATMENTS DEFINITIONS		
Treatment	Description/Purpose	Example
Upgrade – widening, curve realignment, drainage improvements	An upgrade aims to improve upon the existing road, not just in terms of smoothness (rideability), but also making it wider or straighter. It may include widening a narrow road or straightening out sharp corners or steep slopes. Drainage improvements may include well constructed open table drains (generally rural) or kerb and gutter with piped drainage (generally urban). Smoother surface Wider lanes Better shoulders Better corner Better delineation	 
Upgrade – sealing a gravel road	An upgrade aims to improve upon the existing road. It may involve sealing a previously gravel road. Often this will also include some widening and curve realignment to accommodate increased traffic speeds. In all instances the road is both "renewed" and "improved".	

Table 3.8: Service Levels

LEVEL OF SERVICE (LoS)			
Activity	**Purpose**	**LoS Scenario 1 LTFP**	**LoS Scenario 2 SRV**
Maintenance - Line Marking	To clearly delineate traffic lanes, road widths and road alignment.	205km Sub Arterial and Collector Road network is line marked approximately once every 8 to 9 years. Local and minor local road network only line marked reactively to inspections and high risk areas. Recommended effective life of line marking is up to 5 years. FY14/15 expenditure – $39,000 spent on line marking.	Sub Arterial & Collector Roads will be line marked once every 5 years. Does not include RMS Classified Regional Road network. 205 km of Sub Arterial and Collector Road line marking is effective. Remaining Local Road line marking remains unchanged and is reactive to customer requests. Additional expenditure - $66,600 pa
Maintenance - Drainage Management	Unblocks obstructions to drainage paths and ensures water is effectively and efficiently diverted away from roadways. Also includes the maintenance of gross pollutant traps.	With over 3000 culvert structures we are reactive to customer requests for both urban and rural locations. Once culverts have a build up of silt and overgrown vegetation they need to be cleaned. Currently clean approximately 1 structure per day (5 per week). FY14/15 expenditure – $427,000 spent on drainage maintenance.	Effective Programmed Maintenance would mean a dedicated crew to undertake routine works: Urban & Rural drainage – 10 structures per week would mean we could clean our drainage network over a 6 to 7 year return period. Additional expenditure - $475,000 pa
Maintenance - Vegetation Management To maintain safe sight distance around corners	Provides clear line of sight around curves and on narrow roads.	Our current level of service maintains our: •Sealed Roads – twice per yr •Unsealed Roads – once every 3 years. Industry standards/benchmark measures vertical growth and shouldn't exceed 300 mm. This	For safer sight distance: An effective maintenance program would mean Sealed Roads – 3 times per year Unsealed Roads Collector – Once every year Local & Minor Local Roads – Once every 3 years

Maintenance - Vegetation Management To remove potential traffic hazards	Removes potential road side traffic hazards (larger trees); minimize fire risk; and allows water to get off the road and into the verge within the cleared zone adjacent to the road.	is not being achieved. Recommended vegetation control for sight distance is seasonal and undertaken on a routine basis. Recommended vegetation control for removing potential traffic hazards on unsealed roads is undertaken once every 3 years (as above). FY14/15 expenditure – $411,000 spent on roadside vegetation management.	This treatment will also satisfy vegetation control for removing potential traffic hazards. Additional expenditure - $490,500 pa (for both activities)
Renewal - Gravel Road Resheeting	In order to maintain the life of a gravel road surface, gravel resheeting is the application of a 100 – 200mm layer of new gravel over the existing gravel road surface.	Our current level of service resheets our 958km gravel road network with a regularity based on their usage. We currently gravel resheet approximately 20km per year, which is focused on achieving a return period of 15 to 20 years on 275km of our highest use gravel roads, and allows limited resheeting on the remaining network on an as needed risk management basis. FY 15/16 expenditure - $700,000	Our target level of service ranges from 15 years for our highest use gravel roads to 60 years for our lowest use gravel roads. On average this requires 35km gravel resheeting per year across the 958km network. Additional Expenditure - $600,000 pa
Renewal - Heavy Patching	This activity targets the repair of isolated pavement failures and defects. It can be undertaken as a stand alone activity or combined with a resurfacing activity. A stand alone treatment is considered 'Maintenance' When combined with resurfacing it is considered 'Renewal'	Our current Maintenance Heavy Patch level of service is aimed at repairing high risk heavy patch requirements on all sealed roads. Our current heavy patch backlog on 200km of Regional and Collector roads is in the order of 200,000sqm. We do not hold data for the backlog on Local roads but it would be a similar magnitude or in the order of 1,000,000sqm for the whole network.	A recommended target for reducing and managing the heavy patch backlog across the entire network is in the order of 100,000 sqm/yr No additional Maintenance heavy patch required as current 'deficiency' will be resolved by additional renewal heavy patch when combined with a reseal Additional renewal heavy patch when combined with additional reseal (below) will achieve the target for

			reducing and managing heavy patch across the network. Additional Maintenance Heavy Patching expenditure - $0 pa Additional Renewal Heavy Patching Expenditure - $3.6M
		FY14/15 Maintenance heavy Patching – $800,000 pa. FY15/16 Renewal heavy Patching – $700,000 pa.	
Renewal - Resurfacing ("reseal")	In order to maintain the life of a road surface, resealing is the application to a sealed road surface of a thin layer of bitumen into which aggregate is incorporated. This treatment renews the sealed surface to its 'as-new' condition to continue keeping water out of the pavement underneath. As many roads also have localised pavement problems where the water has entered and caused damage, a resurfacing program is generally combined with a heavy patch program to achieve the required renewal.	The current level of service allows for an average of 7km of resurfacing each year. This equates to an average life of 100 years for each sealed road surface FY15/16 Resurfacing Program - $300,000	A target for resurfacing every 20 years is considered reasonable and at the upper limit of industry seal performance expectations. When combined with the additional renewal heavy patch funds, the additional resurfacing funds will deliver a return period of approximately once every 20 years. Additional Resurfacing Program Expenditure - $1.4M pa
Renewal – Rehabilitation / Reconstruction	Roads whose pavement has deteriorated beyond the ability for localised repair (heavy patch) and resurfacing (reseal) require complete rehabilitation or reconstruction in order to renew them to their 'as-new' condition. Reconstruction /	The current level of service allows for an average of 1km of rehabilitation / reconstruction.	A minimum target for rehabilitation / reconstruction would be to contain the current length of road requiring rehabilitation / reconstruction and to reduce this amount over time. The current rehab / recon backlog is in the order of 30km or $24M and is increasing at around 2km or $1.6M per year

	rehabilitation renewal activities are often combined with an element of upgrade (specifically widening) to maximise the long term value and future proff the works for the community.	FY15/16 Rehabilitation / Resurfacing Program - $800,000	An additional 2km rehabilitation / reconstruction per year will contain the current backlog. Additional Rehabilitation / Resurfacing Program Expenditure - $1.6M pa
Upgrade – widening, curve realignment, drainage improvements	Upgrades are generally undertaken as a result of growth (development), whereby the existing road is unable to accommodate the increase in type (eg freight) or quantity of vehicles. Upgrade is generally funded by Developer Contributions or special one-off State or Federal grants. Council funds will be allocated to "minor upgrades", generally as part of the reconstruction of Regional or Collector Roads and primarily consist of widening and drainage improvements.	The current level of service provides for the equivalent of approximately 0.5km of road widening when combined with a rehabilitation / reconstruction program. Note: This does not include one-off special grants or developer contributions FY15/16 Upgrade - $200,000	The inclusion of an additional $800K will allow an additional 2km of road widening when combined with the rehabilitation / reconstruction program. Additional Upgrade Expenditure - $800,000 pa
Upgrade – sealing a gravel road	The sealing of gravel roads is undertaken when the function of that road changes as a result of development growth, eg what was formerly a rural road servicing a farm is now the access road to a new urban subdivision or industrial complex. It is generally upgraded as a condition of consent as part of the proposed development at no	The current level of service is to only upgrade and seal gravel roads as part of a new development when funded by that development. FY15/16 Upgrade - $0	No change to the level of service Additional Expenditure - $0

	cost to Council.		

4. FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include population change, changes in demographics, seasonal factors, climate change, vehicle ownership rates, consumer preferences and expectations, government decisions, 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 Table 4.3.

4.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and utilisation of assets are shown in Table 4.3.

Table 4.3: Demand Drivers, Projections and Impact on Services

Demand drivers	Present position	Projection	Impact on services
Development	Population increase and higher density development	Steady growth anticipated to continue	Increase in demand for services supported by infrastructure due to development and population growth
Community Expectations	There is a strong desire from the community for a high standard of services	Expectations will continue to increase	Existing networks may not be fully suitable for the purpose
Increasing Costs	The cost to construct, maintain and renew infrastructure is increasing at a rate greater than council's revenue	Cost increases are anticipated to continue, and will likely be at a higher rate than CPI. Cost of renewing infrastructure systems is increasing	The need to carefully target and plan infrastructure is increasing in importance as maximising the service that can be delivered within the funding limitations will be under pressure.
Environment and Climate Change Sea level change	It is widely accepted that climate is changing	Future is uncertain but is likely that climate change will impact on the delivery of the services provided by infrastructure. Weather extremes and rising sea levels will have significant impact on infrastructure	Some services such as the Transport networks and Seawalls/Marine Structures may be impacted directly by climate/rainfall and severe events. Higher frequency and larger flood events. Additional costs will be imposed to fund environmental initiatives e.g. carbon trading and retrofitting of water quality infrastructure

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 failures[13]. Examples of non-asset solutions include providing joint services from existing assets such as aquatic centres and libraries that may be in another community area or public toilets provided in commercial premises.

Opportunities identified for demand management are shown in Table 4.4.

Table 4.4: Demand Management Plan Summary

Service Impact	Demand Management Plan
Communicate options and capacity to fund infrastructure works with the community	Monitor community expectations and communicate service levels and financial capacity with the community to balance priorities for infrastructure with what the community is prepared to pay for.
Funding priority works	Link asset management plans to long term financial plans and community strategic plans. Continue to seek grant funding for projects identified in the Greater Taree's Community and Strategic Asset Management Plans.
Improve understanding of costs and capacity to maintain current service levels.	Continue to analyse the cost of providing service and the capacity to fund at the current level of service.
Climate Change	Increased understanding of climate change effects and required management techniques.

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.

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.

[13] IPWEA, 2011, IIMM, Table 3.4.1, p 3|58.

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 Tables 2.2 and 2.3.1.

5.1.2 Asset capacity and performance

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

5.2 Infrastructure Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets conducted for each relevant asset management plan 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(s) and the adopted treatment plan are summarised in Table 5.2. These risks are regularly reported to management and Council/Board.

Table 5.2: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Roads			
Increasing financial pressure to adequately maintain the roads portfolio	The long term renewal of road seals is not adequate	Very High	Limited funding available requires needs to be directed to highest priority areas, by utilising road hierarchy, condition data, and priorities identified in the Community Strategic Plan
Road Maintenance	Increasing maintenance requirements	High	Continue to improve data Documented service level risks and utilisation for establishing future maintenance priorities
Road Damage	Damage to roads as a result of major storm events	Very High	At present cannot be managed within councils resourcing. Continue to improve data
Bridges			
Timber Bridges	Failure. Structural or functional.	High	Increase inspections
Stormwater Drainage			
Stormwater Network	General deterioration of the network resulting in structural and capacity failures	High	Assess adequacy of inspections, particularly in aged network areas. Keep data up to date so that renewals can be planned
Stormwater Network	Flooding due to blockages	High	Assess adequacy of programs and monitor frequency of problems due to inadequate cleaning or maintenance.

Stormwater Network	Flooding caused by inadequate or lack of stormwater t systems	High	Review stormwater management program
Footpaths			
Footpaths	Path user trips and injure themselves on damaged path surface.	High	Regular inspection of path condition and defects in accordance with footpath policy. Inspections by Council personnel for any hazards reported by public. Use of materials in new path construction to increase life of footpath.
Box Culverts			
Box Culverts	Failure. Structural or functional.	High	Increase inspections

5.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, eg cleansing, utility services, 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, such as cleanliness, appearance, etc., 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 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 the respective AM Plan and service risks considered in the Infrastructure Risk Management Plan.

5.3.2 Operations and Maintenance Strategies

We 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/Board
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs

- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets 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 we are obtaining best value for resources used.

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 Figure 6.1 with estimated available operating budget funding. Note that all costs are shown in current dollar values (i.e. real values).

Figure 6.1: Projected Operations and Maintenance Expenditure and Budget (Scenario 1 LTFP)

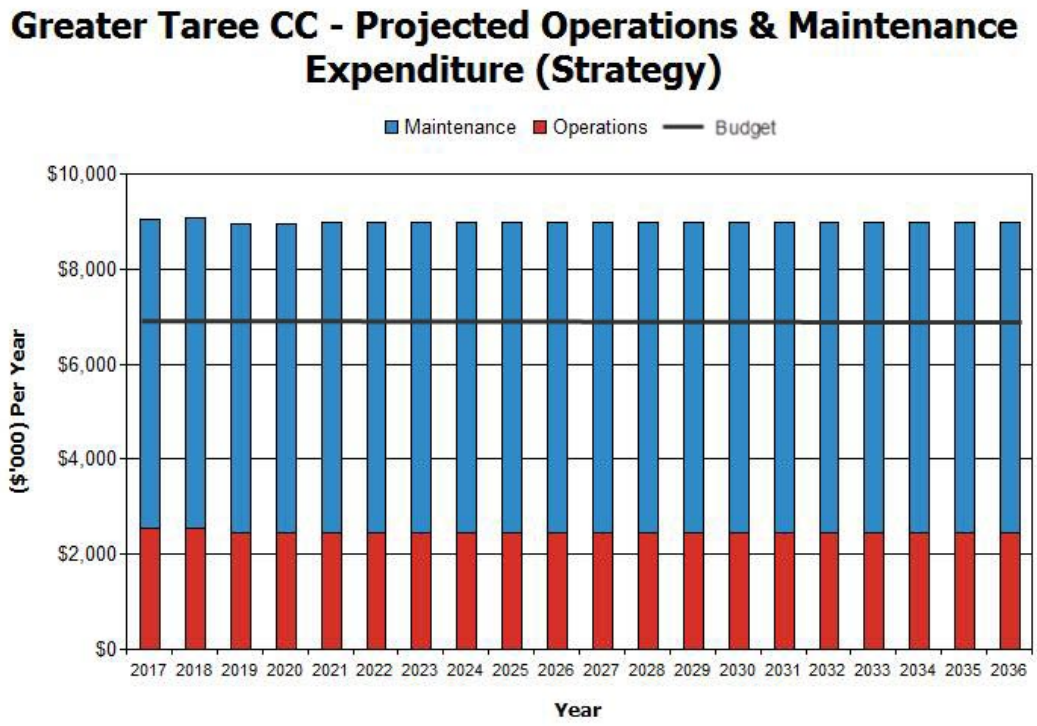
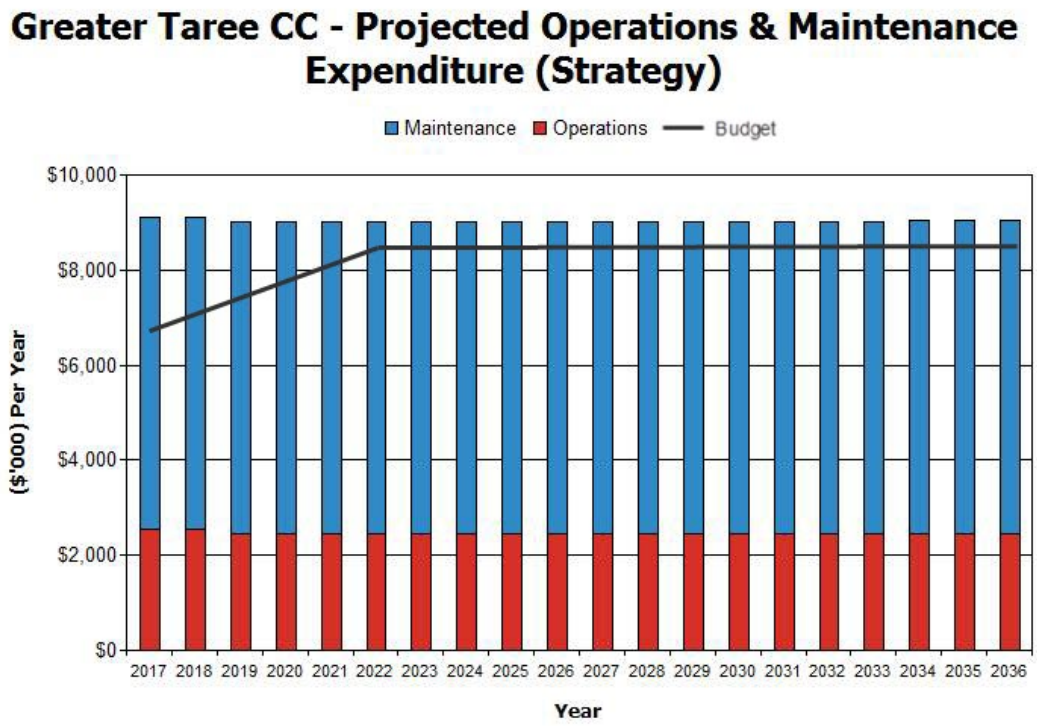


Figure 6.2: Projected Operations and Maintenance Expenditure and Budget (Scenario 2 SRV)



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 and Replacement Strategies

We 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/Board, and
    - select the best option to be included in capital renewal programs,
- Using *optimal* 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/Board
- 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 we are 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 replace 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).[14]

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.[15]

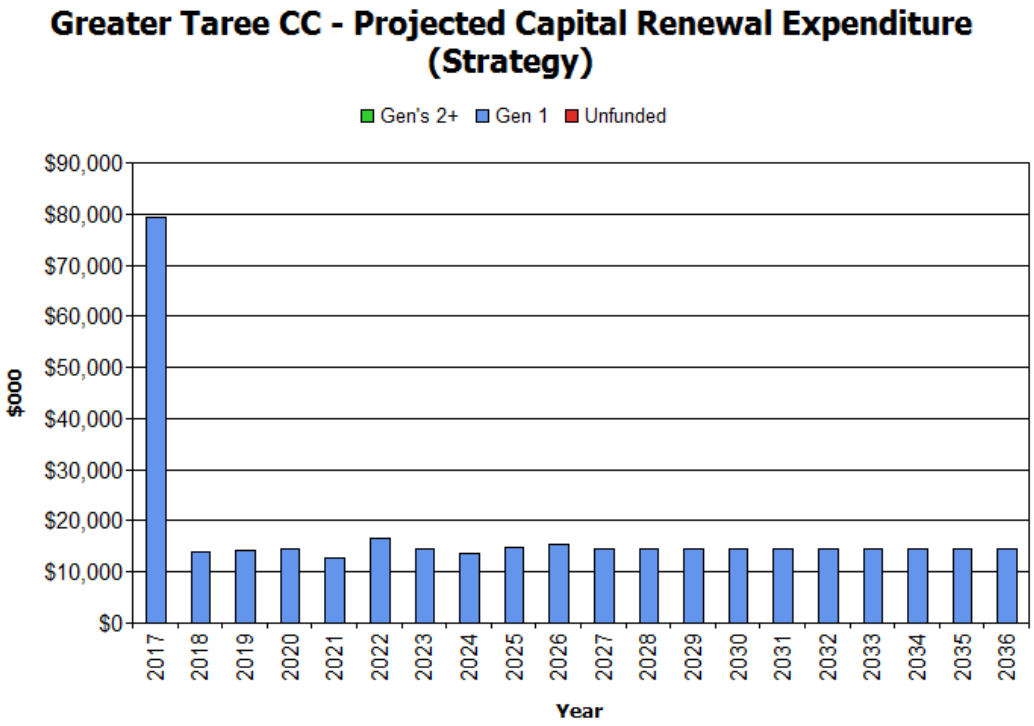
The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in the respective asset management plans.

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 projected expenditure and estimated available capital renewal budget funding is summarised in Fig 7. Note that all amounts are shown in real values.

[14] IPWEA, 2011, IIMM, Sec 3.4.4, p 3|60.
[15] Based on IPWEA, 2011, IIMM, Sec 3.4.5, p 3|66.

Fig 7: Projected Capital Renewal and Replacement Expenditure (Scenario 1 LTFP)



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 discussed in Section 4.5.

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 in the respective asset management plans.

5.5.2 Capital Investment Strategies

We 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/Board, 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 we are obtaining best value for resources used.

Standards and specifications for maintenance of existing assets and construction of new assets and upgrade/expansion of existing assets are detailed in relevant asset management plans.

5.5.3 Summary of future upgrade/new assets expenditure

Projected upgrade/new asset expenditures and estimated available budget are summarised in Fig 10. All amounts are shown in real values.

Fig 8: Projected Capital Upgrade/New Asset Expenditure (Scenario 1 LTFP)

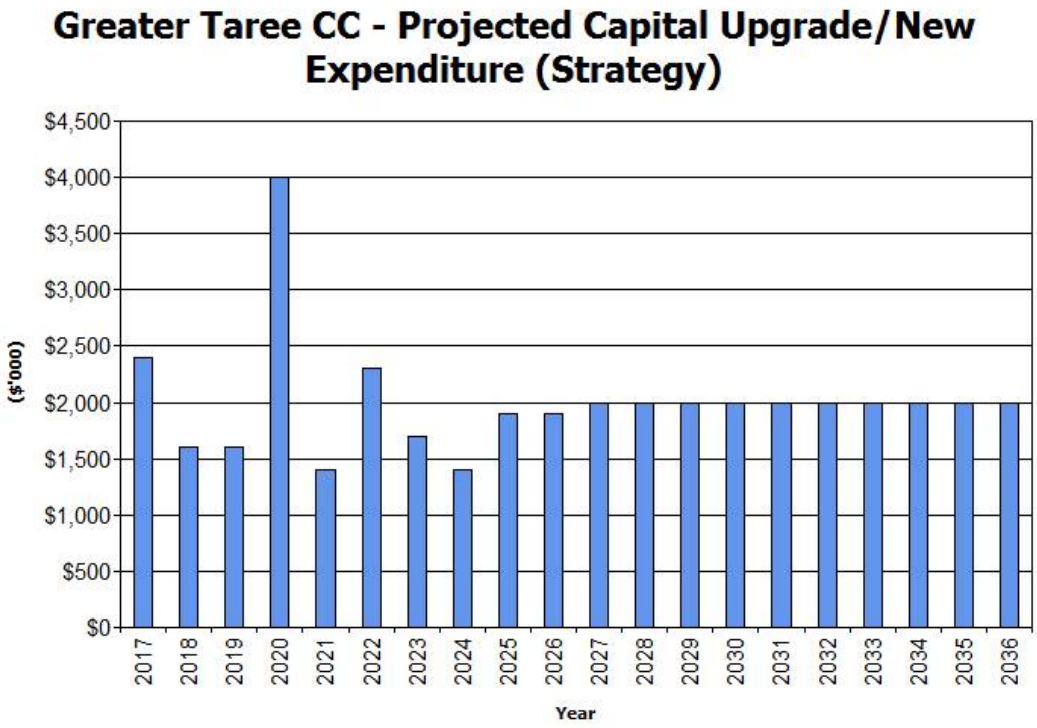


Figure 10 shows that council plans to spend $14.8m on new or upgraded infrastructure in the first year of the plan.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. No assets have been identified for possible decommissioning or disposal in this plan.

6. 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.

6.1 Financial Indicators and Projections

Sustainability of service delivery

In addition to long term life cycle costs/expenditures there are 3 key indicators for service delivery sustainability that have been considered within this plan, these being the asset renewal funding ratio and the medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

The Asset Renewal Funding Ratio is the most important indicator and reveals whether projected capital renewal and replacement expenditure are able to be financed in the long-term financial plan. It is calculated by dividing the projected capital renewal expenditure shown in the AM Plan by the estimated capital renewal budget provided in the long-term financial plan.

Tables 6.1.1 and 6.1.2 show sustainability of service calculations including and excluding year 1 backlog projections.

Table 6.1.1: Sustainability of Service Delivery (Including Backlog)

Sustainability of service delivery (Including Backlog)	Scenario 1 (LTFP) ($000's)	Scenario 2 (SRV) ($000's)
Asset Renewal Funding Ratio		
Asset Renewal Funding Ratio	27%	51%
Medium Term (10 yrs) Sustainability		
10 year Operations, Maintenance & Renewal Projected Expenditure	$29,919	$29,968
10 year Operations, Maintenance & Renewal Planned (Budget) Expenditures	$12,953	$19,619
10 year Funding Shortfall (10 year projected. expenditures. - Planned (Budget) Expenditures)	$-16,966	$-10,349
10 year Sustainability Indicator (10 year planned exp. / projected. Expenditure)	43%	65%
Short Term (5 years) Sustainability		
5 year Operations, Maintenance & Renewal Projected Expenditure	$35,932	$35,982
5 year Operations, Maintenance & Renewal Planned (Budget) Expenditure	$13,393	$17,557
5 year Funding Shortfall (5 year projected expenditures. - planned (budget) expenditures)	$-22,539	$-18,425
5 year Sustainability Indicator (5 year planned expenditures. / projected expenditures)	37%	49%

Table 6.1.2: Sustainability of Service Delivery (Excluding Backlog)

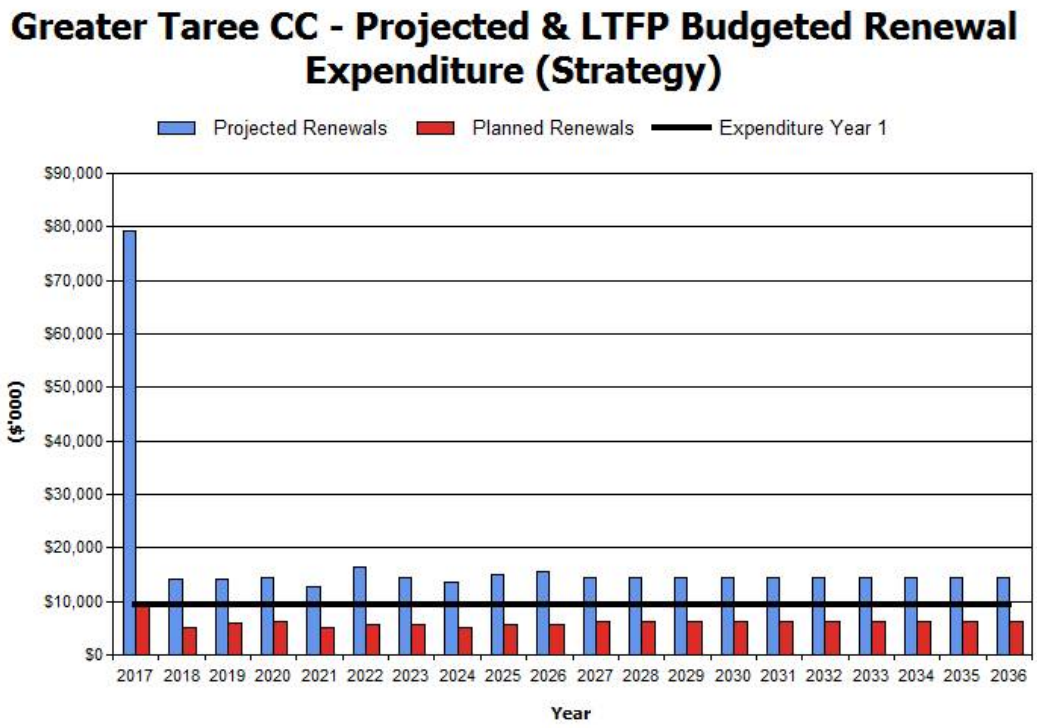
Sustainability of service delivery (Excluding Backlog)	Scenario 1 (LTFP) ($000's)	Scenario 2 (SRV) ($000's)
Asset Renewal Funding Ratio		
Asset Renewal Funding Ratio	41%	77%
Medium Term (10 yrs) Sustainability		
10 year Operations, Maintenance & Renewal Projected Expenditure	$23,716	$24,728
10 year Operations, Maintenance & Renewal Planned (Budget) Expenditures	$12,953	$19,619
10 year Funding Shortfall (10 year projected. expenditures. - Planned (Budget) Expenditures)	$-10,763	$-4,146
10 year Sustainability Indicator (10 year planned exp. / projected. Expenditure)	55%	83%
Short Term (5 years) Sustainability		
5 year Operations, Maintenance & Renewal Projected Expenditure	$23,526	$23,576
5 year Operations, Maintenance & Renewal Planned (Budget) Expenditure	$13,393	$17,557
5 year Funding Shortfall (5 year projected expenditures. - planned (budget) expenditures)	$-10,132	$-6,019
5 year Sustainability Indicator (5 year planned expenditures. / projected expenditures)	57%	74%

Table 6.1.2 shows that under the current LTFP council can only fund 40% of the projected asset renewals in the next 10 years. This will result in additional deferred asset renewals and a continual increase in council's reported backlog. Whilst not at 100% this position is significantly improved under the SRV and external funding scenario. Deferred renewal values and other modelling results for each main asset class are included in Appendix C.

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.

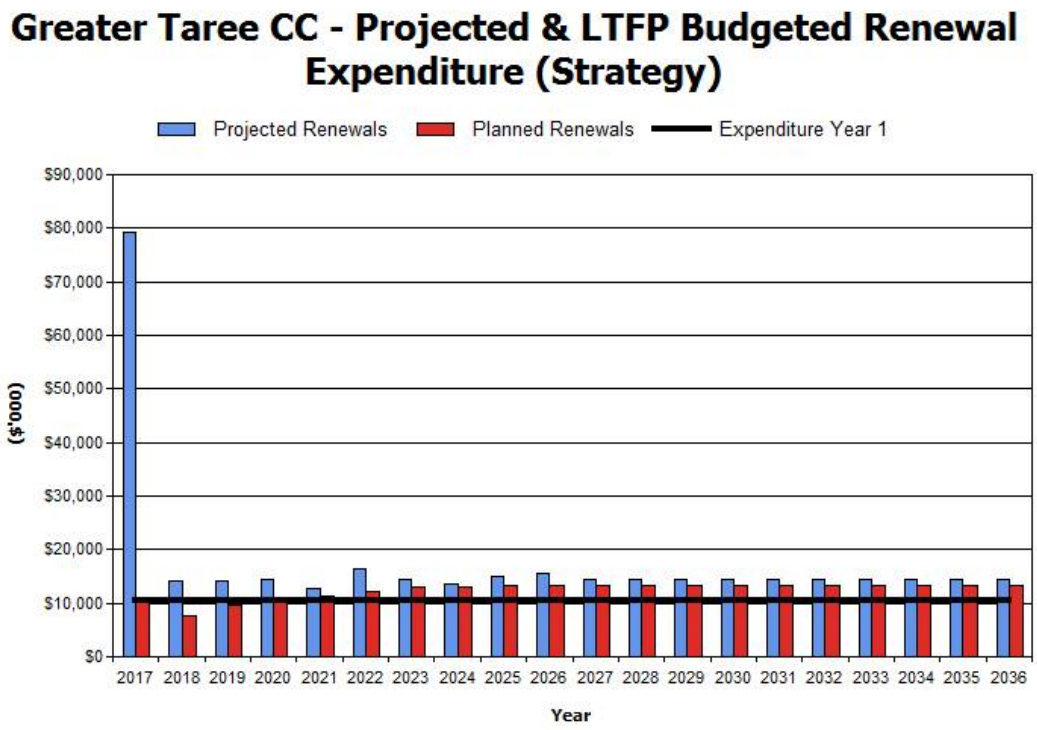
Figures 9.1 and 9.2 show the projected asset renewal and replacement expenditure over the 20 years of the SAMP for the 2 scenarios being considered.

Figure 9.1 Projected and LTFP Budgeted Renewal Expenditure including backlog (Scenario 1 LTFP)



Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2017	$79,214	$9,432	$-69,782	$-69,782
2018	$14,030	$5,130	$-8,900	$-78,682
2019	$14,275	$6,025	$-8,250	$-86,932
2020	$14,400	$6,300	$-8,100	$-95,032
2021	$12,730	$5,080	$-7,650	$-102,682
2022	$16,480	$5,680	$-10,800	$-113,482
2023	$14,380	$5,780	$-8,600	$-122,082
2024	$13,480	$5,080	$-8,400	$-130,482
2025	$14,860	$5,580	$-9,280	$-139,762
2026	$15,480	$5,643	$-9,837	$-149,599
2027	$14,400	$6,100	$-8,300	$-157,899
2028	$14,400	$6,100	$-8,300	$-166,199
2029	$14,400	$6,100	$-8,300	$-174,499
2030	$14,400	$6,100	$-8,300	$-182,799
2031	$14,400	$6,100	$-8,300	$-191,099
2032	$14,400	$6,100	$-8,300	$-199,399
2033	$14,400	$6,100	$-8,300	$-207,699
2034	$14,400	$6,100	$-8,300	$-215,999
2035	$14,400	$6,100	$-8,300	$-224,299
2036	$14,400	$6,100	$-8,300	$-232,599

Figure 9.2 Projected and LTFP Budgeted Renewal Expenditure including backlog (Scenario 2 SRV)



Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2017	$79,214	$10,579	$-68,635	$-68,635
2018	$14,030	$7,537	$-6,493	$-75,128
2019	$14,275	$9,512	$-4,763	$-79,891
2020	$14,400	$11,057	$-3,343	$-83,234
2021	$12,730	$11,412	$-1,318	$-84,552
2022	$16,480	$12,045	$-4,435	$-88,987
2023	$14,380	$12,980	$-1,400	$-90,387
2024	$13,480	$12,880	$-600	$-90,987
2025	$14,860	$13,280	$-1,580	$-92,567
2026	$15,480	$13,280	$-2,200	$-94,767
2027	$14,380	$13,280	$-1,100	$-95,867
2028	$14,380	$13,280	$-1,100	$-96,967
2029	$14,380	$13,280	$-1,100	$-98,067
2030	$14,380	$13,280	$-1,100	$-99,167
2031	$14,380	$13,280	$-1,100	$-100,267
2032	$14,380	$13,280	$-1,100	$-101,367
2033	$14,380	$13,280	$-1,100	$-102,467
2034	$14,380	$13,280	$-1,100	$-103,567

Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2035	$14,380	$13,280	$-1,100	$-104,667
2036	$14,380	$13,280	$-1,100	$-105,767

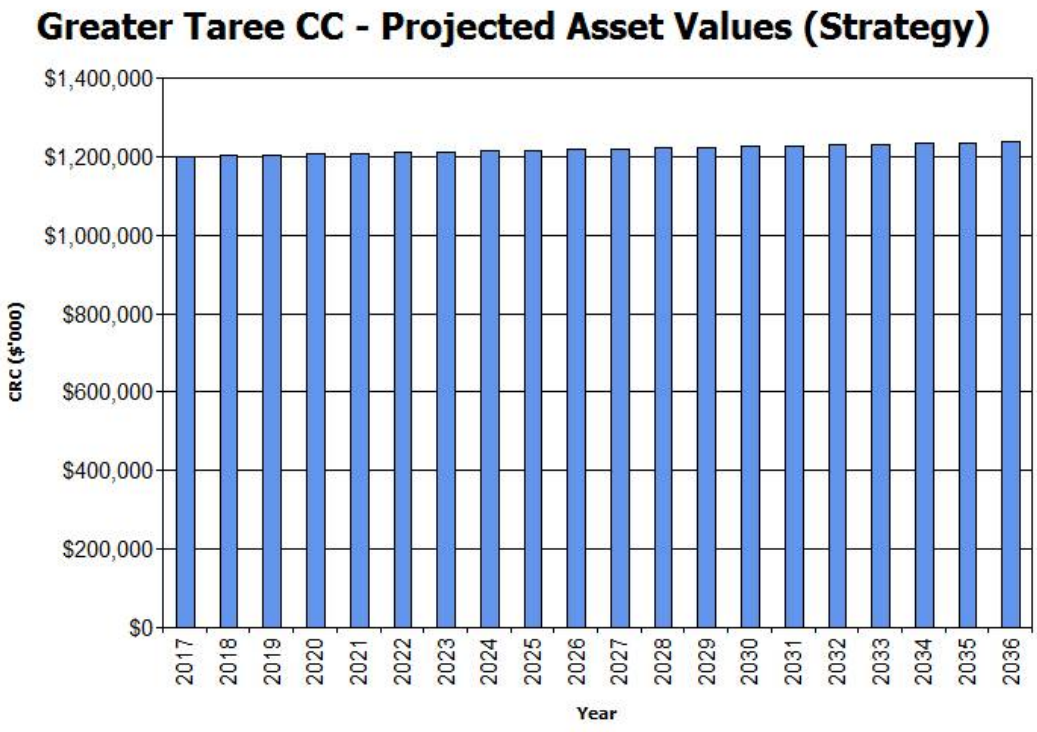
6.2 Funding Strategy

The funding strategy to provide the services covered by this asset management plan is contained within the organisation's 10 year long term financial plan.

6.3 Valuation Forecasts

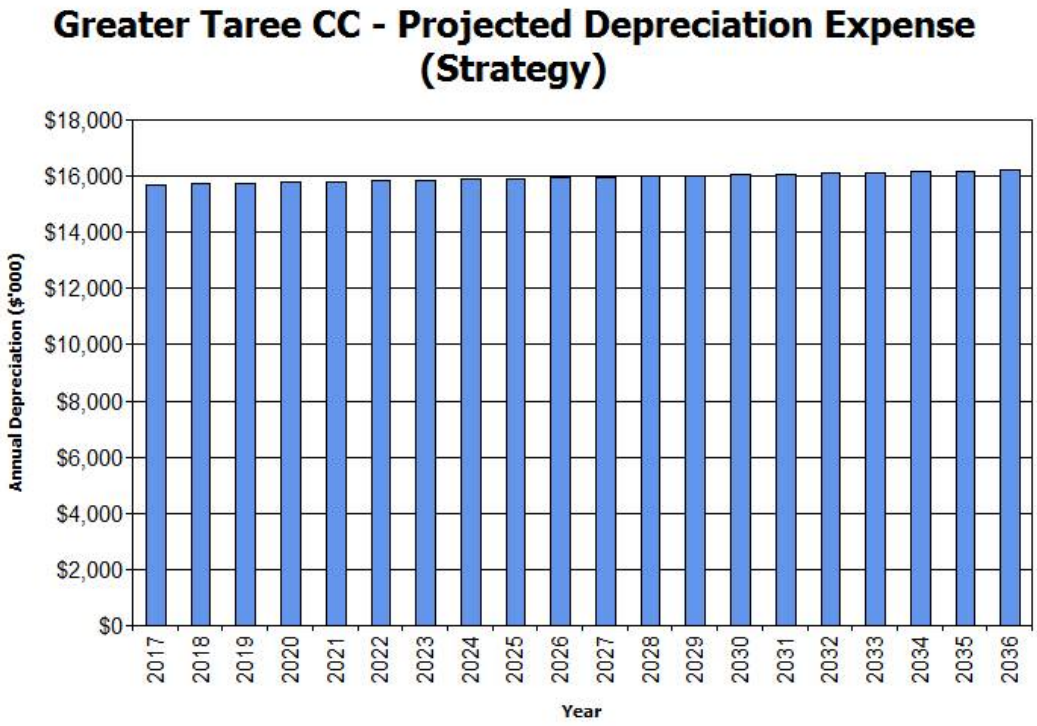
Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by the organisation and from assets constructed by land developers and others and donated to the organisation. Figure 10 shows the projected replacement cost asset values over the planning period in real values.

Figure 10: Projected Asset Values (Scenario 1 LTFP)



Depreciation expense values are forecast in line with asset values as shown in Figure 11.

Figure 11: Projected Depreciation Expense (Scenario 1 LTFP)



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 Figure 12.1 and 12.2. The depreciated replacement cost of contributed and new assets is shown in the darker colour and in the lighter colour for existing assets.

Figure 12.1: Projected Depreciated Replacement Cost (Scenario 1 LTFP)

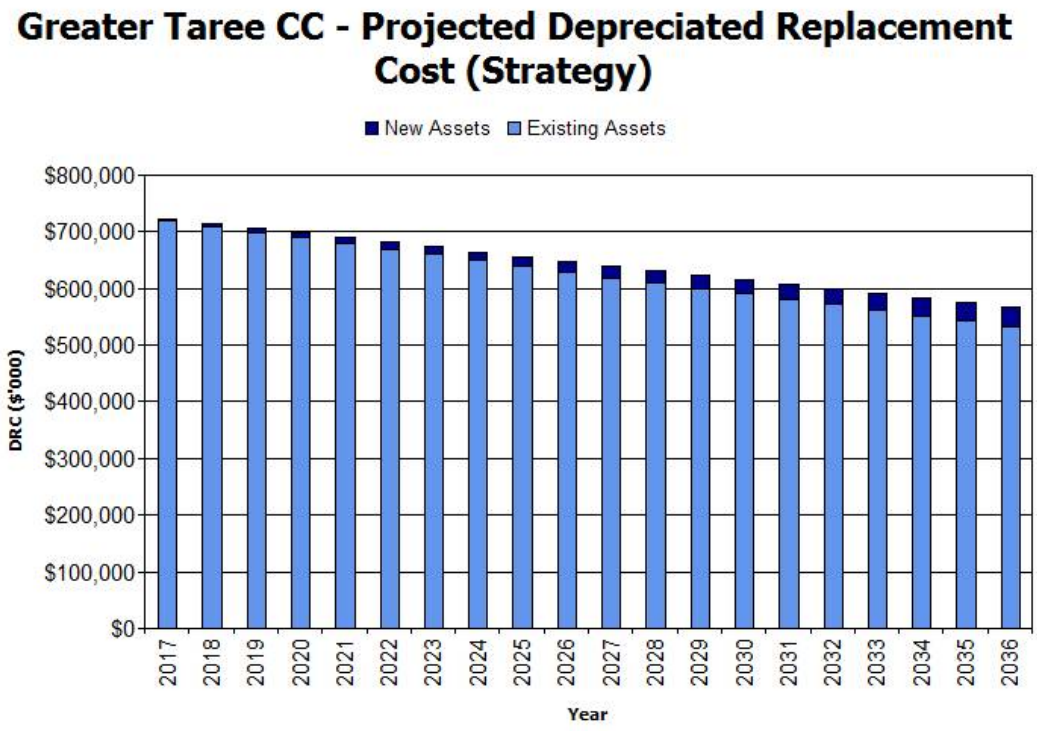
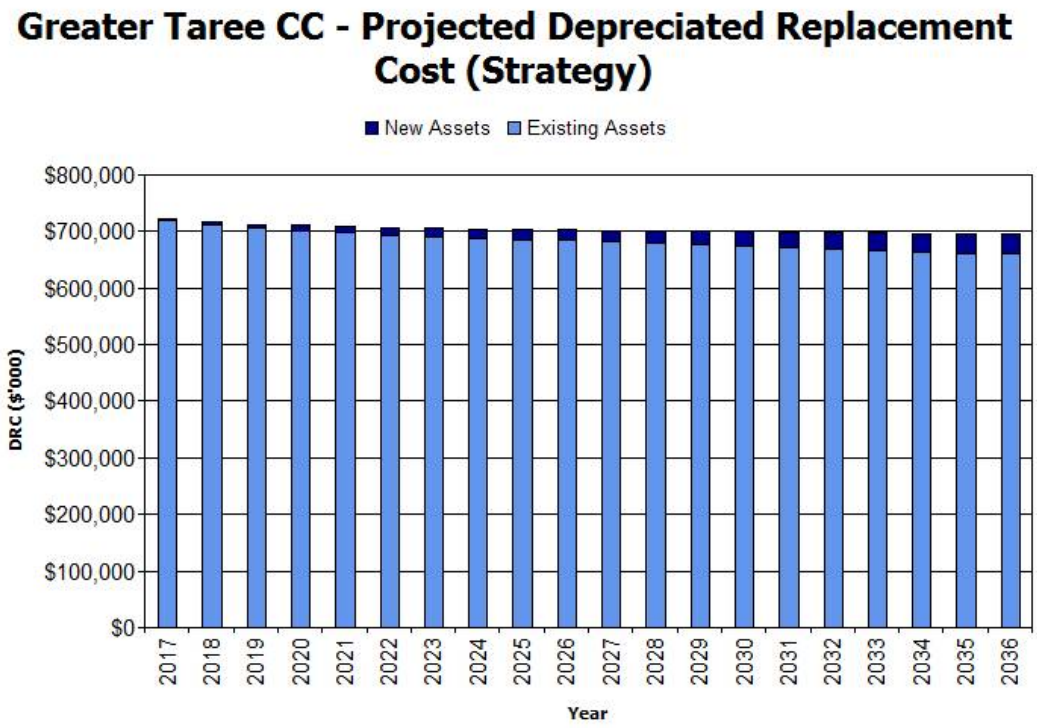


Figure 12.2: Projected Depreciated Replacement Cost (Scenario 2 SRV)



6.4 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 Table 6.4.

Table 6.4: Key Assumptions made in AM Plan and Risks of Change

Key Assumptions	Risks of Change to Assumptions
Projected renewal data including average annual asset consumption which is used for the Long Term sustainability assessments	Low - Medium Risk
Use of existing valuations, useful lives and remaining lives determined from the condition rating	Low - Medium Risk
Use of current expenditure information as best as this can be determined	Low - Medium Risk

6.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this strategic AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 6.5.

Table 6.5: Data Confidence Assessment for AM Plans summarised in Strategic AM Plan

Data	Confidence Assessment	Comment
Demand drivers	C Uncertain	Estimated, further substantiation required for next revision of the SAMP
Growth projections	B Reliable	Estimated, further substantiation required for next revision of the SAMP
Operations expenditures	B Reliable	Direct from budget, but breakdown into operations and maintenance and renewal is estimated and requires development
Maintenance expenditures	B Reliable	Direct from budget, but breakdown into operations and maintenance and renewal is estimated and requires development
Projected Renewal expenditures. - Asset values	B Reliable	Based on known works and recent condition audit. Additional work required for Bridges and Stormwater Drainage
- Asset useful lives	B Reliable	Ongoing substantiation required for next revision of the SAMP
- Condition modelling	B Reliable	Roads based on recent condition audit. Additional work required for Bridges and Stormwater Drainage
- Network renewals	B Reliable	Based on known works and recent condition audit. Additional work required for Bridges and Stormwater Drainage
Upgrade/New expenditures	B Reliable	Direct from budget
Disposal expenditures	B Reliable	Estimated, but not considered to be significant

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

Actions to mitigate the adverse effects of data quality are included within Table 7.2 Improvement Plan,

7. PLAN IMPROVEMENT AND MONITORING

7.2 Improvement Program

The asset management improvement tasks identified from NSW Local Government Audit Preparedness Assessment and preparation of this strategic asset management plan are shown in Table 7.2 and 7.3.

Table 7.2: AM Maturity Key Strategies

National Framework	National Framework Element	Core Element	Key Strategy Number	Task/Action	Responsibility	Resources Required	Timeline	Current Status Comments
AM Planning	AM Policy	Y	KS-1	Ensure that the AM Policy is implemented and communicated to key stakeholders. Annual review of policy implementation by the Project Management Working Party and Audit Committee. Ensure Council is briefed on their roles and governance responsibilities under the reviewed AM policy.				
AM Planning	Governance & Management	Y	KS-2	Implement this asset management development program to improve Councils asset management maturity, particularly in the area of measurement and reporting of trends in service levels and risk that result from the available funding scenarios in the long term financial plan.				
AM Planning	AM Plans	Y	KS-3	Continue to develop and update Asset Management Plans for the major asset groups.				

National Framework	National Framework Element	Core Element	Key Strategy Number	Task/Action	Responsibility	Resources Required	Timeline	Current Status Comments
Financial Planning	Annual Budget	Y	KS-4	Identify infrastructure expenditure by both: - Expenditure Category i.e. the Asset Group it is associated with; for example, road pavement - Expenditure Type – operating, maintenance, capital renewal, capital upgrade or capital expansion				
AM Planning	Governance & Management	Y	KS-5	Consider the ongoing ownership costs of new capital works proposals in budget deliberations. This is achieved by identifying the renewal and capital upgrade/expansion components of all capital works projects, and providing for the ongoing operational and maintenance requirements.				
AM Planning	Skills & Processes	Y	KS-6	Develop Risk Delivery Programs for all major asset classes.				
AM Planning	Data & Systems	Y	KS-7	Review the completeness and accuracy of the data for all major infrastructure classes.				
AM Planning	Data & Systems		KS-8	Use a knowledge management strategy to ensure that appropriate and optimal decision support information is available to clearly communicate the cumulative consequences of decisions.				
AM Planning	Data & Systems	Y	KS-9	Continue developing the corporate asset register meeting both technical and financial reporting requirements.				
Financial Planning	Annual Report	Y	KS-10	Develop and adopt an Asset Accounting and Capitalisation Policy that assists in meeting the intention of Fair Value Reporting (AASB116).				

National Framework	National Framework Element	Core Element	Key Strategy Number	Task/Action	Responsibility	Resources Required	Timeline	Current Status Comments
AM Planning	AM Plans	Y	KS-11	Develops a funding model which addresses the need for sustainable renewal of infrastructure and which identifies all asset life cycle costs.				
Financial Planning	Strategic Longer Term Plan	Y	KS-12	The 10 year financial sustainability plan for all Council functions will consider both the future anticipated income projections, and the future expenditure requirements to sustain services. This plan will consider the expenditures identified in the Asset Management Plans, and will provide input into the annual Council budget.				
AM Planning	Levels of Service	Y	KS-13	Continue to improve the information on the relationship between the service level and cost so that future community consultation will be well informed of the options and costs.				
AM Planning	Evaluation	Y	KS-14	Undertake a detailed assessment of the resources required to implement this Asset Management Improvement Plan so that a program of improvement and milestones can be implemented and monitored.				

Table 7.3: AM Maturity Improvement Tasks

National Framework	National Framework Element	Source	Service Area	Task No.	Key Strategy Link	Task/Action	Responsibility	Resourcing	Timeline	Current Status Comments
AM Planning	AM Plan	Audit Preparedness Assessment	All Areas	1	KS-3 KS-5	Continue to develop and Updated Asset Management Plans in consultation with the community, councillors and senior management. All plans to include long term Capital Works Programs with whole of life cost estimate and key performance indicators linked to Council's CSP and annual reporting.				
AM Planning	Data & Systems	Audit Preparedness Assessment	Waste	2	KS-7	Design, implement and resource staff to maintain Asset Registers				
AM Planning	Data & Systems	Audit Preparedness Assessment	All Areas	3	KS-9	Resource Asset Systems Officer to ensure capacity to maintain and improve existing asset register in line with the LG Asset Management requirements				
AM Planning	Data & Systems	Audit Preparedness Assessment	All Areas	4	KS-8	Condition Inspection of high risk critical assets - Create a "CONDITION DATA STRATEGY" to sample and cycle inspections of Causeways, Culverts, Retaining Walls, Footbridges, Roadside Barriers. Priority Condition 4 & 5 - 2016, Condition 3 - 2017, Condition 2 - 2018, Condition 1 - 2019				

National Framework	National Framework Element	Source	Service Area	Task No.	Key Strategy Link	Task/Action	Responsibility	Resourcing	Timeline	Current Status Comments
AM Planning	AM Plan	Audit Preparedness Assessment	All Areas	5	KS-3	SAMP - Asset Lifecycle Strategy to deal with the ongoing demands of assets. Capital Works Long Term Plan 10 years for all critical assets required (HIGH)				
AM Planning	Governance & Management	Audit Preparedness Assessment	All Areas	6	KS-5	All new Assets must have a Project Scope with Whole of Life Costs (Design, Survey, Capital Construction , Maintenance, Capital Renewal, Disposal costs)				
AM Planning	Data & Systems	Audit Preparedness Assessment	All Areas	7	KS-9	Capital Valuation processes to be designed, implemented and managed by finance department				
AM Planning	AM Plan	Audit Preparedness Assessment	All Areas	8	KS-3	Resource Assets Engineer to develop Capital Works Long Term Plans for all critical infrastructure assets				
AM Planning	Skills & Processes	Audit Preparedness Assessment	Bridges	9	KS-6	Risk Mitigation Plan - Bridge Engineer to complete Bridge Section. All other road categories have been completed.				
AM Planning	Data & Systems	Audit Preparedness Assessment	All Areas	10	KS-8	Task responsibility of Database Configuration of REFLECT with a Council officer to implement programmed inspection of stormwater urban and rural				
AM Planning	Data & Systems	Audit Preparedness Assessment	Bridges	11	KS-8	Design Bridge inspection Electronic forms for Level 2 bridges for contract inspections This data can then be imported into existing systems or provide integration linkages later				
AM Planning	Levels of Service	Audit Preparedness Assessment	All Areas	12	KS-13	Asset Performance measures - Customer requests must all be recorded in CRM using the appropriate classifications for KPI Reporting				

National Framework	National Framework Element	Source	Service Area	Task No.	Key Strategy Link	Task/Action	Responsibility	Resourcing	Timeline	Current Status Comments
AM Planning	Data & Systems	Audit Preparedness Assessment	Roads	13	KS-9	Collate AADT, crash data, into Road Segment layer for Performance analysis				
AM Planning	Data & Systems	Audit Preparedness Assessment	Bridges	14	KS-8	Conduct Customer Service Level Satisfaction survey to determine performance of critical assets e.g. Roads, Bridges, Causeways.				
Financial Planning	Annual Budget	Audit Preparedness Assessment	All Areas	15	KS-4	Ensure that staff are educated on the different definitions of MAINTENANCE and CAPTIAL reporting requirements for LG. Budgets to reflect this and link to WORK ORDERS				
AM Planning	Skills & Processes	Audit Preparedness Assessment	All Areas	16	KS-6	Risk Register to be completed and risk mitigation measures documented				
AM Planning	Data & Systems	Audit Preparedness Assessment	All Areas	17	KS-9	Investigate integration linkages between Authority and Reflect				
AM Planning	Data & Systems	Audit Preparedness Assessment	All Areas	18	KS-9	Investigate integration linkages between Authority and CRM				

7.3 Monitoring and Review Procedures

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

7.4 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 summarised asset management plans,
- 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 100%.**

8. REFERENCES

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9. APPENDICES

Appendix A Greater Taree City Council Asset Management Policy

Appendix B Aggregated Scenario Modelling excluding existing backlog

Appendix C Scenario Modelling by Asset Class

Appendix D Abbreviations

Appendix E Glossary

Appendix A Greater Taree City Council Asset Management Policy

Greater Taree City Council

Policy

Asset Management

1 Purpose

The purpose of this policy is to set guidelines for implementing consistent asset management processes throughout the Greater Taree City Council.

2 Objective

To ensure adequate provision is made for the operation, maintenance and 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 Council.
- 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 Scope

This policy applies to all Council activities

4 Background

- Council is committed to implementing a systematic asset management methodology in order to apply appropriate asset management best practices across all areas of Council. This includes ensuring that assets are planned, created, operated, maintained, renewed and disposed of in accordance with Council's priorities for service delivery.
- Council owns and uses approximately $810.8M of non-current assets to support its core business of delivery of service to the community.

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GTCC Policy for Asset Management Page 1 of 3

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

- Asset management relates directly to the objectives of the Council's Strategic and Corporate Plans and furthermore needs to achieve agreed community expectations through strategic asset management practices.

- 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 through its infrastructure
  - The political environment in which Council operates; and
  - The legal liabilities of the Council.

5 Principles

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

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

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

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

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

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

- 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.

- 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.

- 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.
- Future service levels will be determined in consultation with the community.

6 Legislations and Regulations

NSW Local Government Act 1993 and Regulations under the Act

NSW Roads Act 1993

NSW Occupational Health and Safety Act 2000

NSW Retail Leases Act 2004

Federal Tenancy Act

Federal Civil Aviation Safety Authority Manual of Standards (MOS) 139 for Airport assets

Air Services Australia Federal Regulations for airport assets

Federal Department of Transport Regulations for Airports

International Civil Aviation Organisation standards for runways and lighting etc at airports

7 Related Documents

Asset Management Strategy and associated Infrastructure and Asset Management Plans

8 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 the Infrastructure asset management strategy, systems, plans and procedures and financial models and reporting on the status and effectiveness of asset management within Council.

Executive Leadership Team is responsible for ensuring that people, processes and systems are in place and work together to deliver and meet the strategic corporate Infrastructure asset management objectives.

Directors and Department Managers are responsible for implementing Infrastructure asset management plans, systems, policies and procedures.

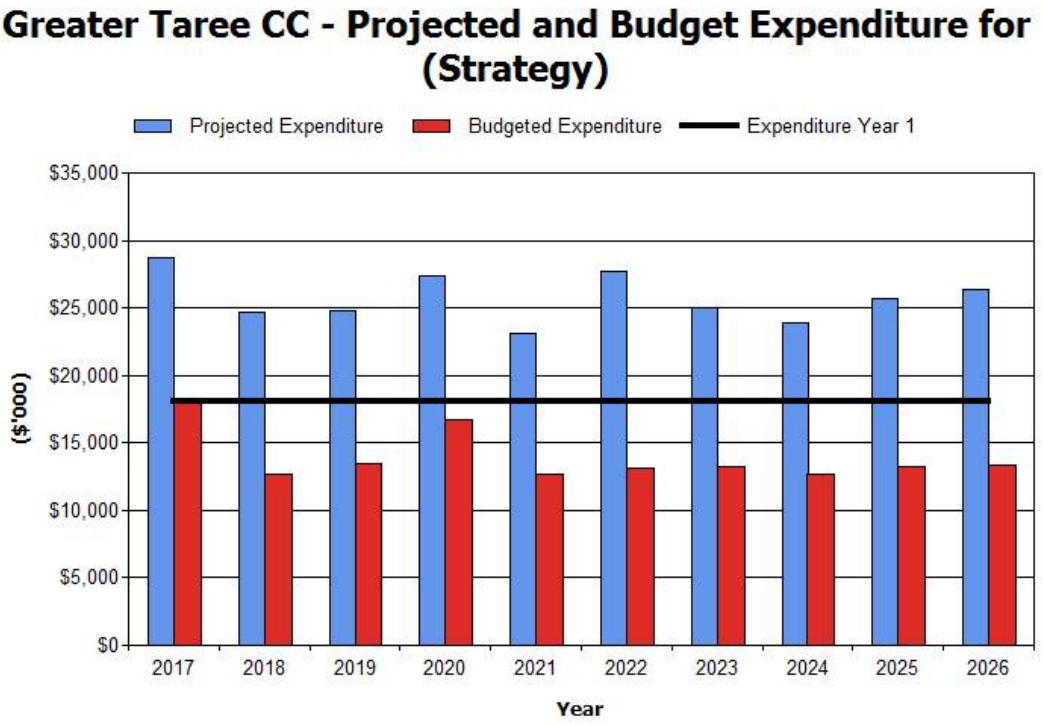
Staff with management and supervisory responsibility are responsible for the management of assets within their area of responsibility as determined under respective asset management plans.

9 Review Date

September 2013 or when required.

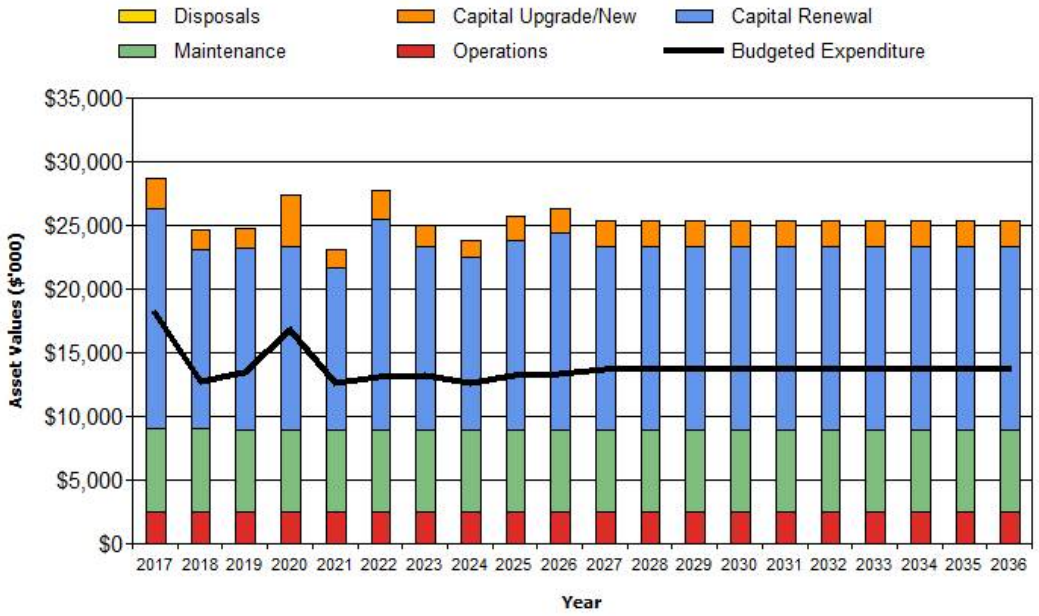
Appendix B Aggregated Scenario Modelling excluding existing backlog

Scenario 1 – Current LTFP (Excluding year 1 backlog)

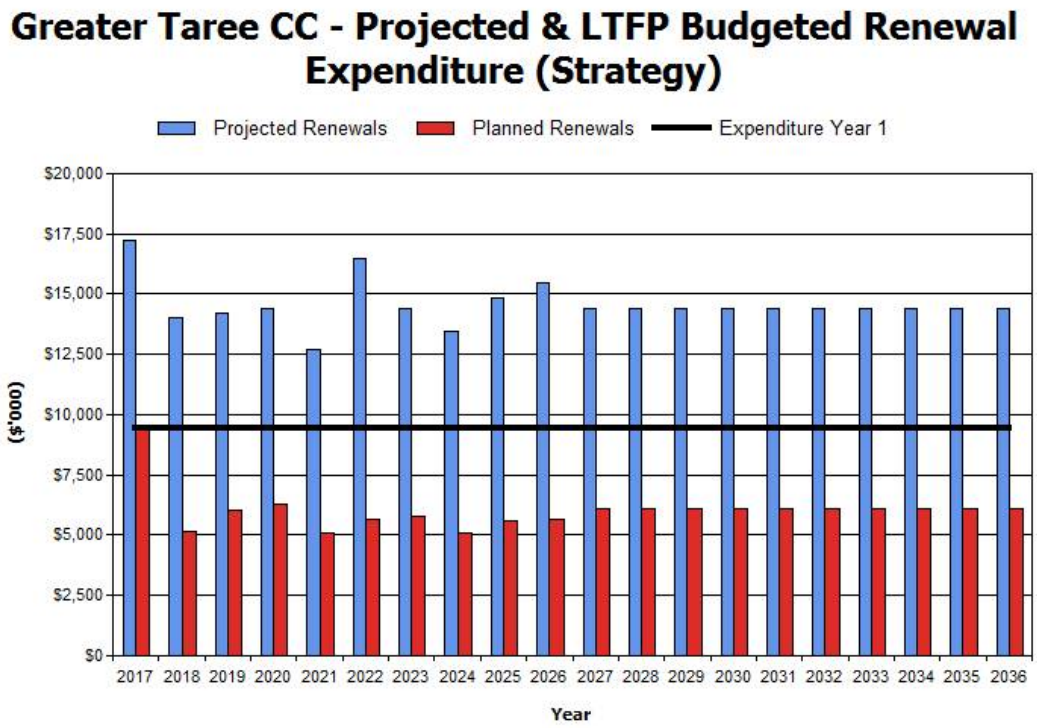


Executive Summary - What does it cost?	($000)
10 year total cost [10 yr Ops, Maint, Renewal & Upgrade Proj Exp]	**$257,356**
10 year average cost	**$25,736**
10 year total LTFP budget [10 yr Ops, Maint, Renewal & Upgrade LTFP Budget]	**$139,230**
10 year average LTFP budget	**$13,923**
10 year AM financial indicator	**54%**
10 year average funding shortfall	**$-11,813**

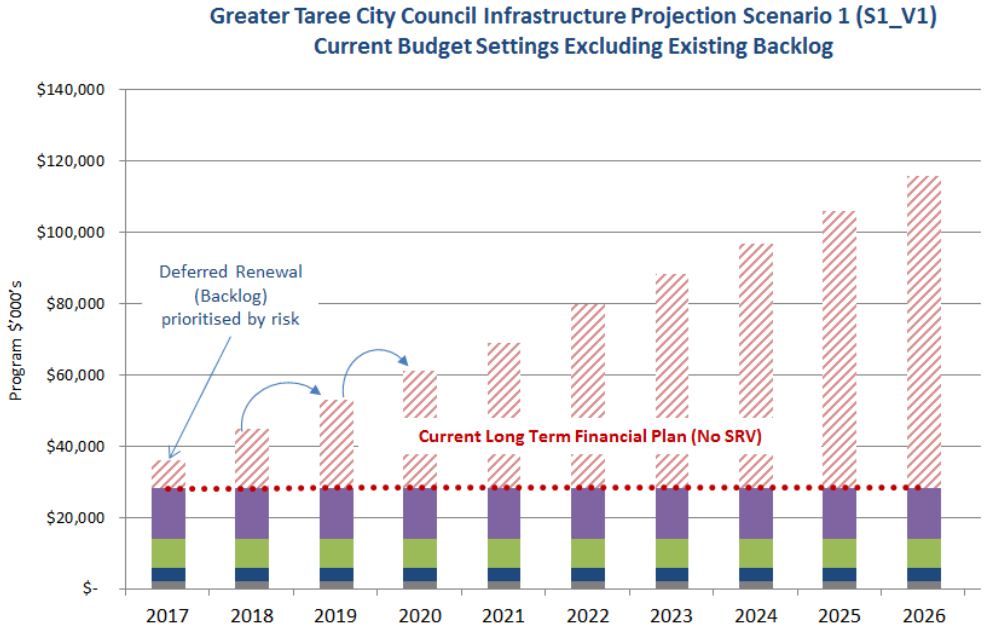
Greater Taree CC - Projected Operating and Capital Expenditure ()



Asset Renewal Funding Ratio	
Asset Renewal Funding Ratio	**41%**
Long Term - Life Cycle Costs	
Life Cycle Cost [average 10 years projected ops, maint exp and deprn.]	**$24,679**
Life Cycle Exp [average 10 years LTFP budget ops, maint & capital renewal exp]	**$12,953**
Life Cycle Gap [life cycle expenditure – life cycle cost (-ve = gap)]	**$-11,726**
Life Cycle Indicator [life cycle expenditure / life cycle cost]	**52%**
Medium Term - 10 year financial planning period	
10 yr Ops, Maint & Renewal Projected Expenditure	**$23,716**
10 yr Ops, Maint & Renewal LTFP Budget Exp	**$12,953**
10 year financing shortfall [10 yr proj exp - LTFP Budget exp]	**$-10,763**
10 year financing indicator [LTFP Budget exp / 10 yr proj exp]	**55%**
Medium Term – 5 year financial planning period	
5 yr Ops, Maint & Renewal Projected Expenditure	**$23,526**
5 yr Ops, Maint & Renewal LTFP Budget Exp	**$13,393**
5 year financing shortfall [10 yr proj exp - LTFP Budget exp]	**$-10,132**
5 year financing indicator [LTFP Budget exp / 5 yr proj exp]	**57%**



Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2017	$17,232	$9,432	$-7,800	$-7,800
2018	$14,030	$5,130	$-8,900	$-16,700
2019	$14,225	$6,025	$-8,200	$-24,900
2020	$14,400	$6,300	$-8,100	$-33,000
2021	$12,730	$5,080	$-7,650	$-40,650
2022	$16,480	$5,680	$-10,800	$-51,450
2023	$14,380	$5,780	$-8,600	$-60,050
2024	$13,480	$5,080	$-8,400	$-68,450
2025	$14,860	$5,580	$-9,280	$-77,730
2026	$15,480	$5,643	$-9,837	$-87,567
2027	$14,400	$6,100	$-8,300	$-95,867
2028	$14,400	$6,100	$-8,300	$-104,167
2029	$14,400	$6,100	$-8,300	$-112,467
2030	$14,400	$6,100	$-8,300	$-120,767
2031	$14,400	$6,100	$-8,300	$-129,067
2032	$14,400	$6,100	$-8,300	$-137,367
2033	$14,400	$6,100	$-8,300	$-145,667
2034	$14,400	$6,100	$-8,300	$-153,967
2035	$14,400	$6,100	$-8,300	$-162,267
2036	$14,400	$6,100	$-8,300	$-170,567



Deferred Renewal
Deferred renewal plus renewal gap in each year. necessary to continue service as per CSP. Service level trends and risk to be reviewed annually and reported in this AMP.

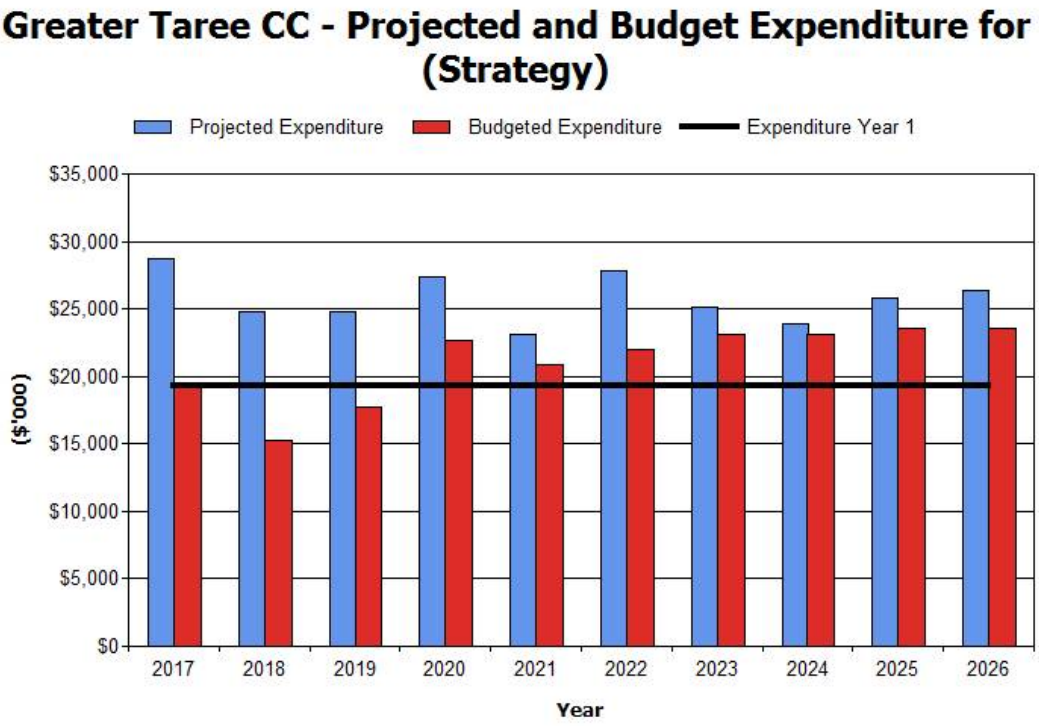
Upgrade New
Graph shows budget allocation. New or upgraded assets increase service levels, asset values, depreciation and maintenance costs

Renewal
Asset renewals funded to budget constraints in LTFP

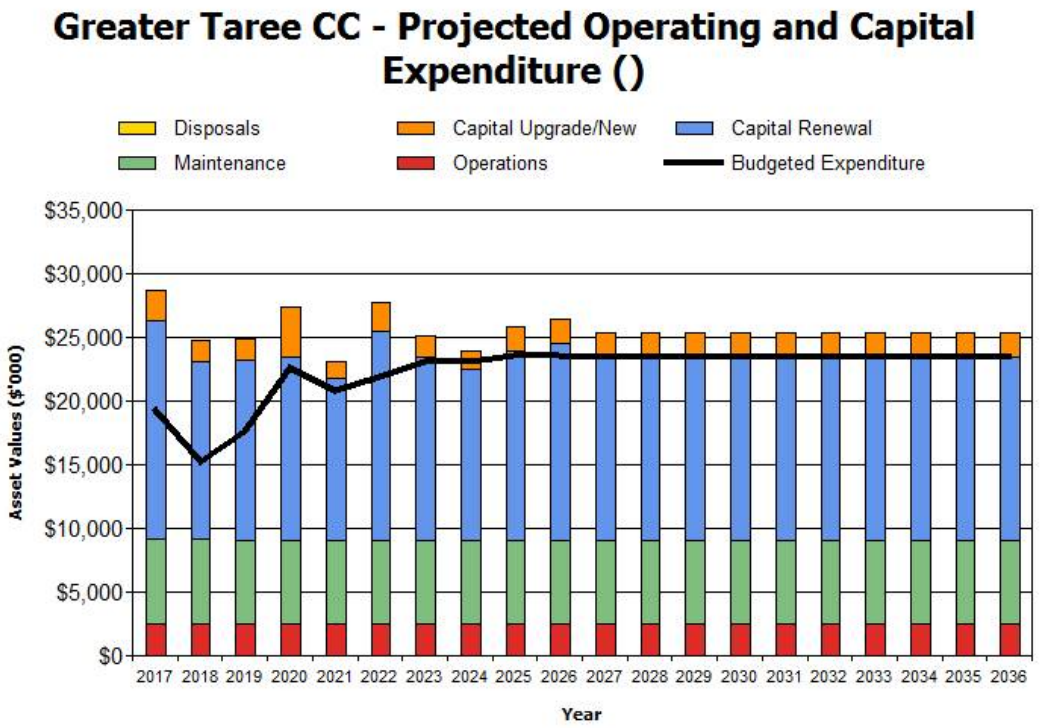
Maintenance
Budget to maintain assets. Scenario 1 locks maintenance to set budget levels and allows underfunding of maintenance. Risk from unfunded maintenance needs shown in AMP and reported to audit committee.

Operating
Budget to operate assets. Scenario 1 locks operations to set budget levels and allows underfunding of operations.

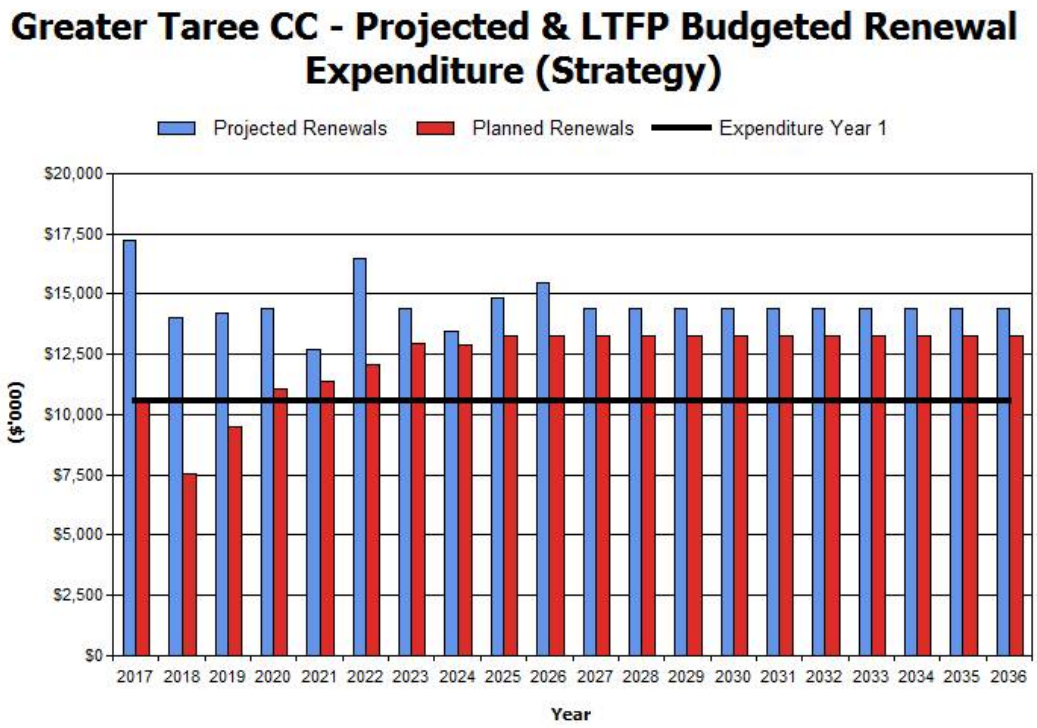
Scenario 2 – SRV and Bridges external funding (Excluding year 1 backlog)



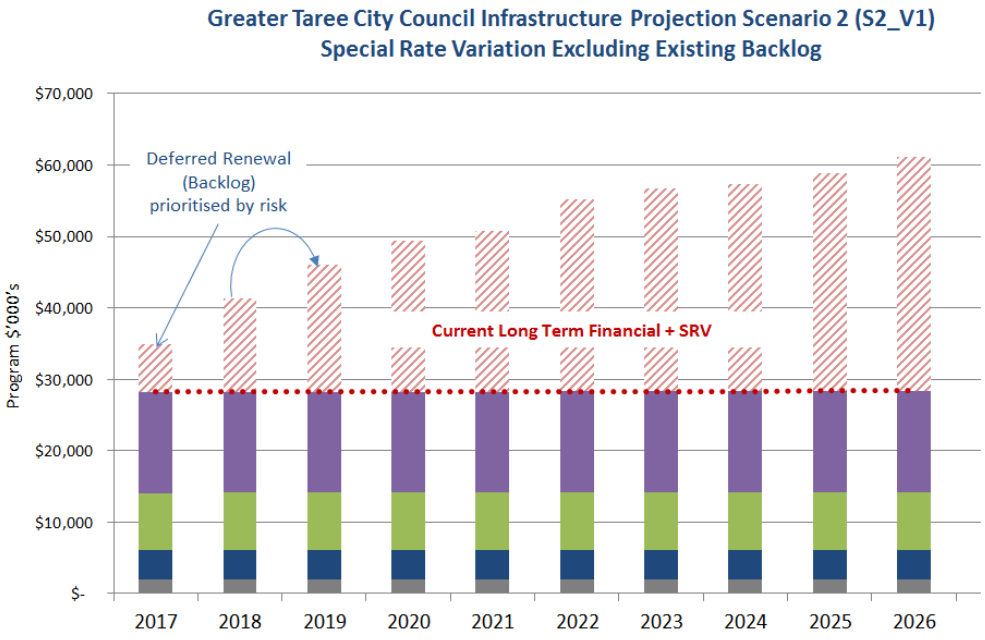
Executive Summary - What does it cost?	($000)
10 year total cost [10 yr Ops, Maint, Renewal & Upgrade Proj Exp]	**$257,851**
10 year average cost	**$25,785**
10 year total LTFP budget [10 yr Ops, Maint, Renewal & Upgrade LTFP Budget]	**$210,894**
10 year average LTFP budget	**$21,089**
10 year AM financial indicator	**82%**
10 year average funding shortfall	**$-4,696**



Asset Renewal Funding Ratio	
Asset Renewal Funding Ratio	**77%**
Long Term - Life Cycle Costs	
Life Cycle Cost [average 10 years projected ops, maint exp and deprn.]	**$24,728**
Life Cycle Exp [average 10 years LTFP budget ops, maint & capital renewal exp]	**$19,619**
Life Cycle Gap [life cycle expenditure – life cycle cost (-ve = gap)]	**$-5,109**
Life Cycle Indicator [life cycle expenditure / life cycle cost]	**79%**
Medium Term - 10 year financial planning period	
10 yr Ops, Maint & Renewal Projected Expenditure	**$23,765**
10 yr Ops, Maint & Renewal LTFP Budget Exp	**$19,619**
10 year financing shortfall [10 yr proj exp - LTFP Budget exp]	**$-4,146**
10 year financing indicator [LTFP Budget exp / 10 yr proj exp]	**83%**
Medium Term – 5 year financial planning period	
5 yr Ops, Maint & Renewal Projected Expenditure	**$23,576**
5 yr Ops, Maint & Renewal LTFP Budget Exp	**$17,557**
5 year financing shortfall [10 yr proj exp - LTFP Budget exp]	**$-6,019**
5 year financing indicator [LTFP Budget exp / 5 yr proj exp]	**74%**



Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2017	$17,232	$10,579	$-6,653	$-6,653
2018	$14,030	$7,537	$-6,493	$-13,146
2019	$14,225	$9,512	$-4,713	$-17,859
2020	$14,400	$11,057	$-3,343	$-21,202
2021	$12,730	$11,412	$-1,318	$-22,520
2022	$16,480	$12,045	$-4,435	$-26,955
2023	$14,380	$12,980	$-1,400	$-28,355
2024	$13,480	$12,880	$-600	$-28,955
2025	$14,860	$13,280	$-1,580	$-30,535
2026	$15,480	$13,280	$-2,200	$-32,735
2027	$14,380	$13,280	$-1,100	$-33,835
2028	$14,380	$13,280	$-1,100	$-34,935
2029	$14,380	$13,280	$-1,100	$-36,035
2030	$14,380	$13,280	$-1,100	$-37,135
2031	$14,380	$13,280	$-1,100	$-38,235
2032	$14,380	$13,280	$-1,100	$-39,335
2033	$14,380	$13,280	$-1,100	$-40,435
2034	$14,380	$13,280	$-1,100	$-41,535
2035	$14,380	$13,280	$-1,100	$-42,635
2036	$14,380	$13,280	$-1,100	$-43,735



Deferred Renewal
Deferred renewal plus renewal gap in each year. necessary to continue service as per CSP. Service level trends and risk to be reviewed annually and reported in this AMP.

Upgrade New
Graph shows budget allocation. New or upgraded assets increase service levels, asset values, depreciation and maintenance costs

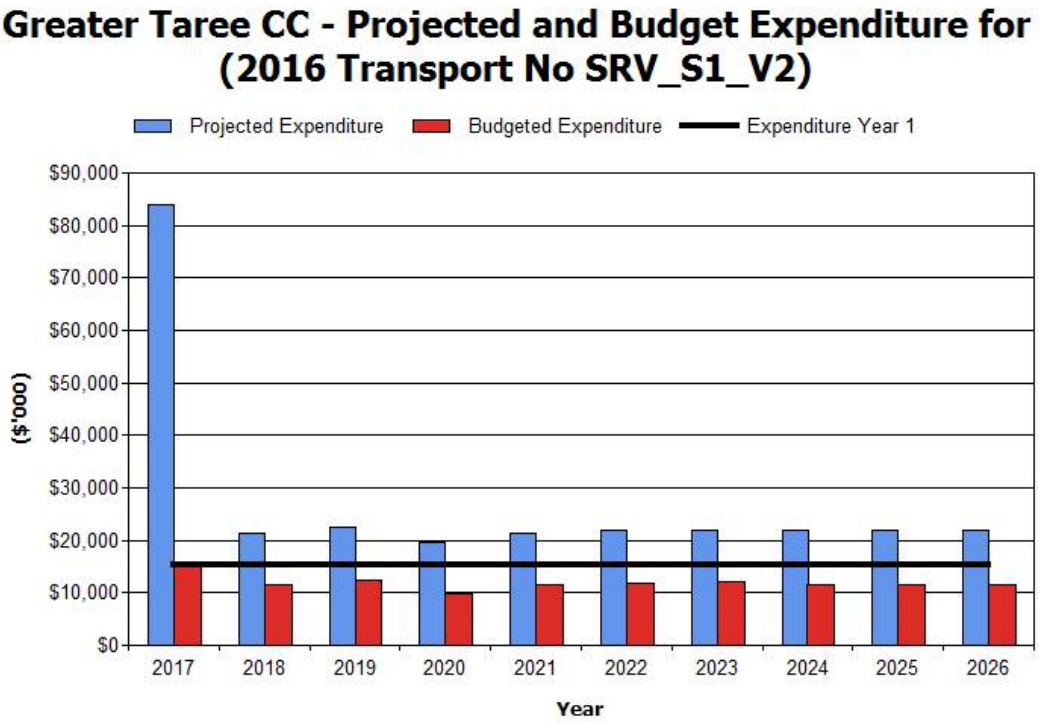
Renewal
Asset renewals funded to budget constraints in LTFP

Maintenance
Budget to maintain assets. Scenario 1 locks maintenance to set budget levels and allows underfunding of maintenance. Risk from unfunded maintenance needs shown in AMP and reported to audit committee.

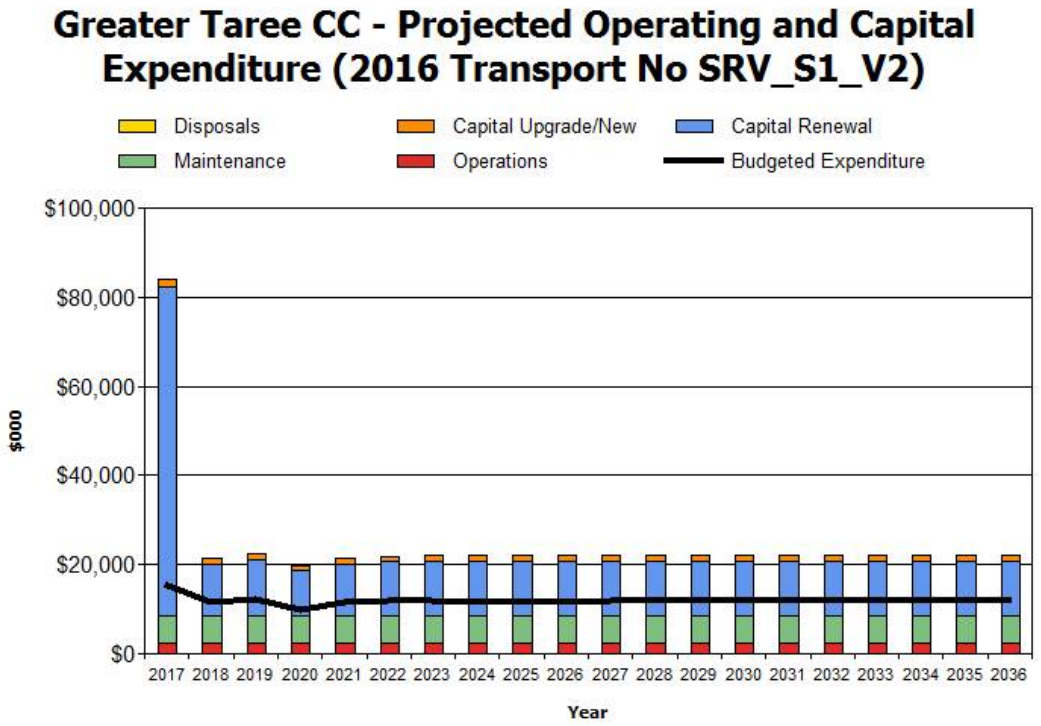
Operating
Budget to operate assets. Scenario 1 locks operations to set budget levels and allows underfunding of operations.

Appendix C Scenario Modelling by Asset Class

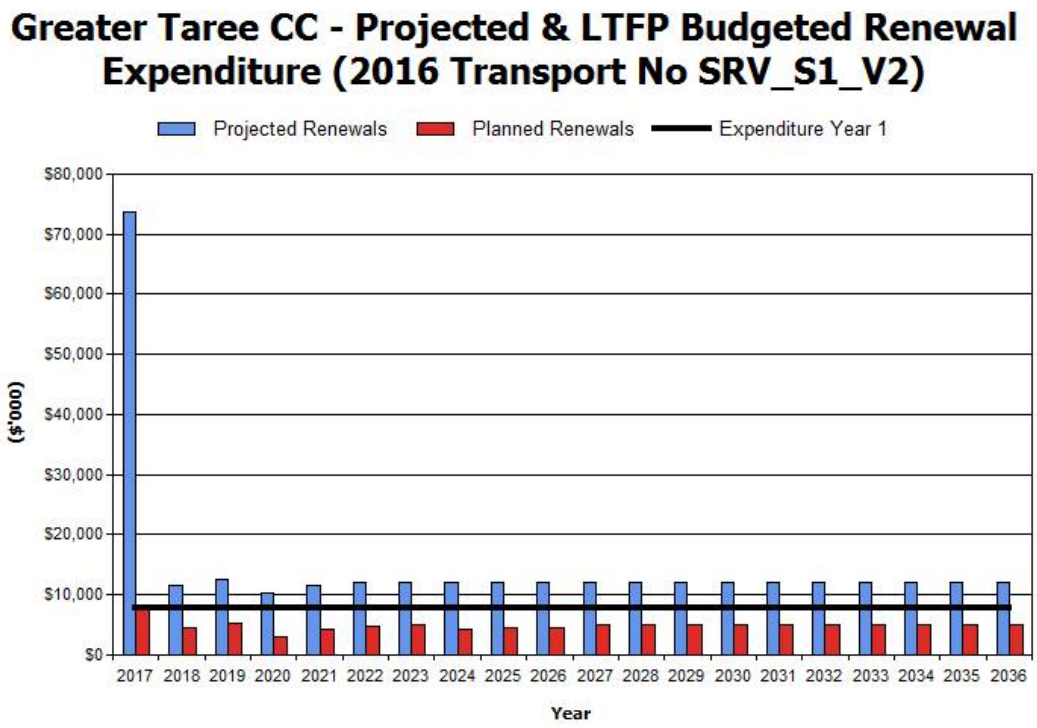
Transport Scenario 1 – Current LTFP (Including year 1 backlog)



2016 Transport No SRV_S1_V2	
Executive Summary - What does it cost?	**($000)**
10 year total cost [10 yr Ops, Maint, Renewal & Upgrade Proj Exp]	**$278,894**
10 year average cost	**$27,889**
10 year total LTFP budget [10 yr Ops, Maint, Renewal & Upgrade LTFP Budget]	**$118,565**
10 year average LTFP budget	**$11,857**
10 year AM financial indicator	**43%**
10 year average funding shortfall	**$-16,033**

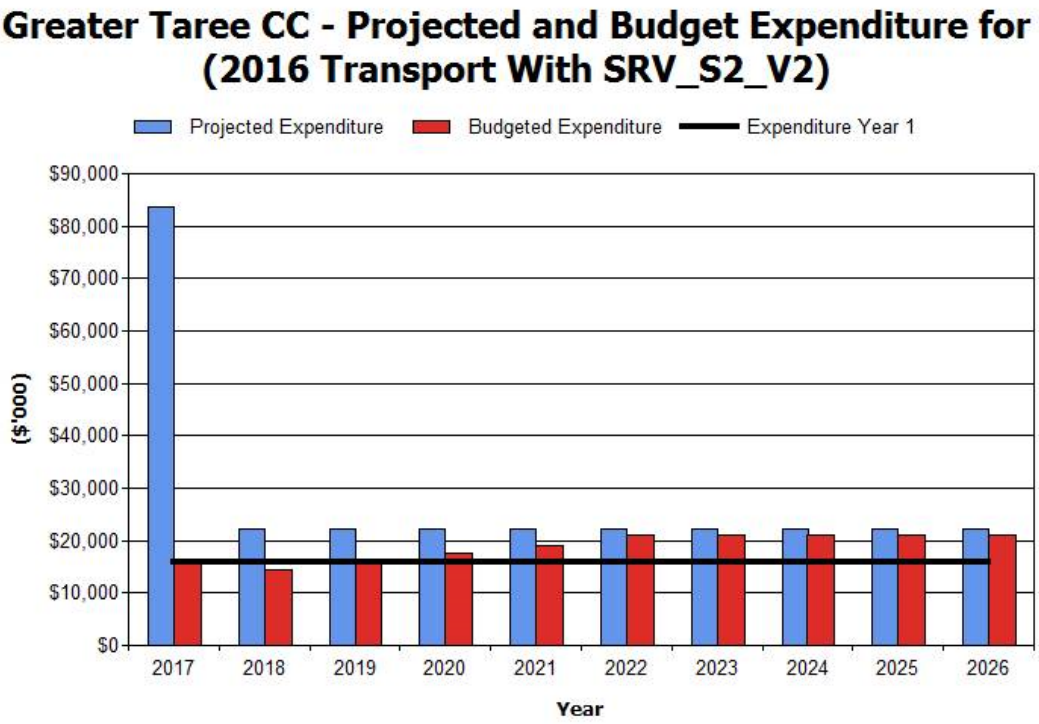


2016 Transport No SRV_S1_V2	
Asset Renewal Funding Ratio	
Asset Renewal Funding Ratio	**25%**
Long Term - Life Cycle Costs	
Life Cycle Cost [average 10 years projected ops, maint exp and deprn.]	**$21,395**
Life Cycle Exp [average 10 years LTFP budget ops, maint & capital renewal exp]	**$11,337**
Life Cycle Gap [life cycle expenditure – life cycle cost (-ve = gap)]	**$-10,059**
Life Cycle Indicator [life cycle expenditure / life cycle cost]	**53%**
Medium Term - 10 year financial planning period	
10 yr Ops, Maint & Renewal Projected Expenditure	**$26,569**
10 yr Ops, Maint & Renewal LTFP Budget Exp	**$11,337**
10 year financing shortfall [10 yr proj exp - LTFP Budget exp]	**$-15,233**
10 year financing indicator [LTFP Budget exp / 10 yr proj exp]	**43%**
Medium Term – 5 year financial planning period	
5 yr Ops, Maint & Renewal Projected Expenditure	**$32,459**
5 yr Ops, Maint & Renewal LTFP Budget Exp	**$11,500**
5 year financing shortfall [5 yr proj exp - LTFP Budget exp]	**$-20,958**
5 year financing indicator [LTFP Budget exp / 5 yr proj exp]	**35%**



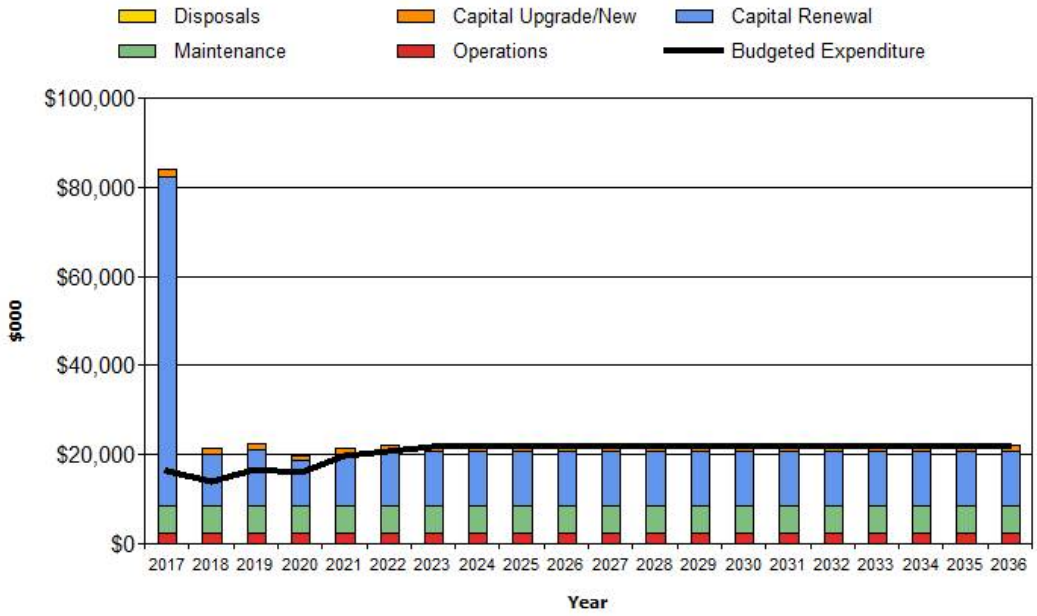
Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2017	$73,709	$7,717	-$65,992	-$65,992
2018	$11,630	$4,430	-$7,200	-$73,192
2019	$12,575	$5,375	-$7,200	-$80,392
2020	$10,200	$3,000	-$7,200	-$87,592
2021	$11,580	$4,380	-$7,200	-$94,792
2022	$12,080	$4,880	-$7,200	-$101,992
2023	$12,180	$4,980	-$7,200	-$109,192
2024	$12,180	$4,380	-$7,800	-$116,992
2025	$12,180	$4,480	-$7,700	-$124,692
2026	$12,180	$4,543	-$7,637	-$132,329
2027	$12,200	$5,000	-$7,200	-$139,529
2028	$12,200	$5,000	-$7,200	-$146,729
2029	$12,200	$5,000	-$7,200	-$153,929
2030	$12,200	$5,000	-$7,200	-$161,129
2031	$12,200	$5,000	-$7,200	-$168,329
2032	$12,200	$5,000	-$7,200	-$175,529
2033	$12,200	$5,000	-$7,200	-$182,729
2034	$12,200	$5,000	-$7,200	-$189,929
2035	$12,200	$5,000	-$7,200	-$197,129
2036	$12,200	$5,000	-$7,200	-$204,329

Transport Scenario 2 – SRV (Including year 1 backlog)

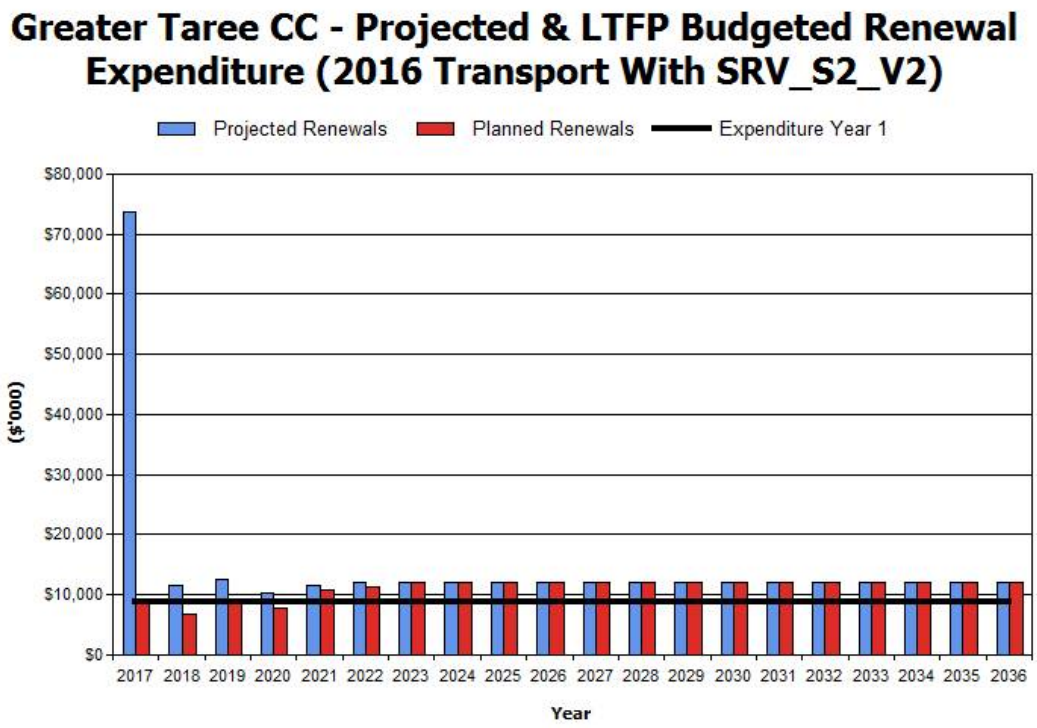


2016 Transport With SRV_S2_V2	
Executive Summary - What does it cost?	**($000)**
10 year total cost [10 yr Ops, Maint, Renewal & Upgrade Proj Exp]	**$279,389**
10 year average cost	**$27,939**
10 year total LTFP budget [10 yr Ops, Maint, Renewal & Upgrade LTFP Budget]	**$190,529**
10 year average LTFP budget	**$19,053**
10 year AM financial indicator	**68%**
10 year average funding shortfall	**$-8,886**

Greater Taree CC - Projected Operating and Capital Expenditure (2016 Transport With SRV_S2_V2)

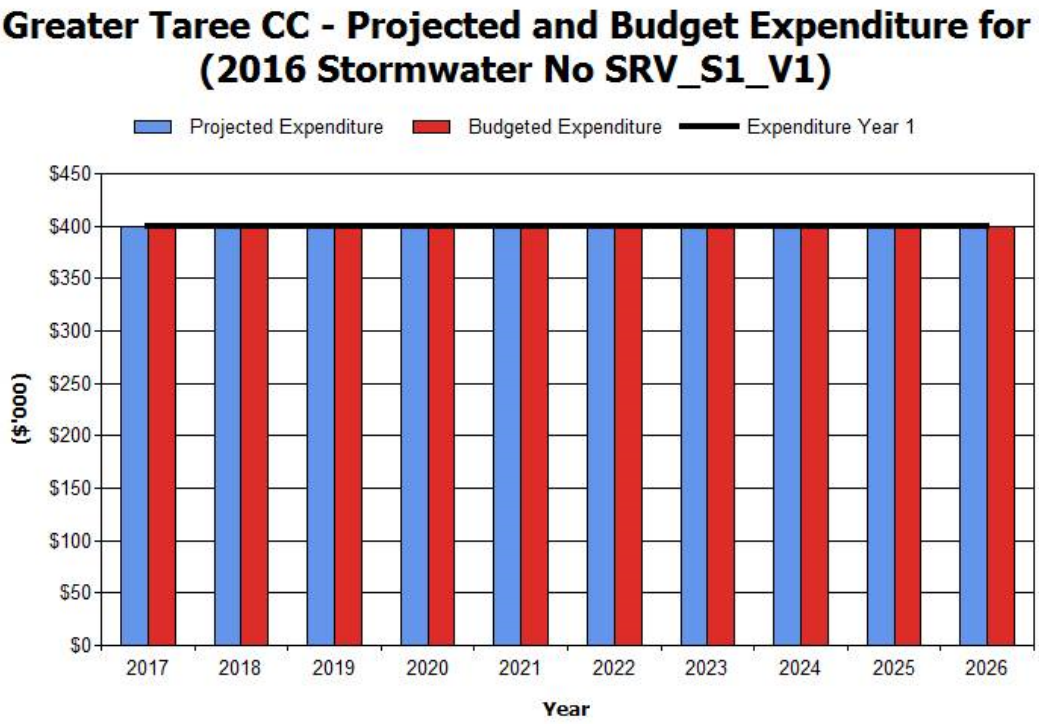


2016 Transport With SRV_S2_V2	
Asset Renewal Funding Ratio	
Asset Renewal Funding Ratio	**53%**
Long Term - Life Cycle Costs	
Life Cycle Cost [average 10 years projected ops, maint exp and deprn.]	**$21,445**
Life Cycle Exp [average 10 years LTFP budget ops, maint & capital renewal exp]	**$18,003**
Life Cycle Gap [life cycle expenditure – life cycle cost (-ve = gap)]	**$-3,442**
Life Cycle Indicator [life cycle expenditure / life cycle cost]	**84%**
Medium Term - 10 year financial planning period	
10 yr Ops, Maint & Renewal Projected Expenditure	**$26,619**
10 yr Ops, Maint & Renewal LTFP Budget Exp	**$18,003**
10 year financing shortfall [10 yr proj exp - LTFP Budget exp]	**$-8,616**
10 year financing indicator [LTFP Budget exp / 10 yr proj exp]	**68%**
Medium Term – 5 year financial planning period	
5 yr Ops, Maint & Renewal Projected Expenditure	**$32,509**
5 yr Ops, Maint & Renewal LTFP Budget Exp	**$15,664**
5 year financing shortfall [5 yr proj exp - LTFP Budget exp]	**$-16,845**
5 year financing indicator [LTFP Budget exp / 5 yr proj exp]	**48%**

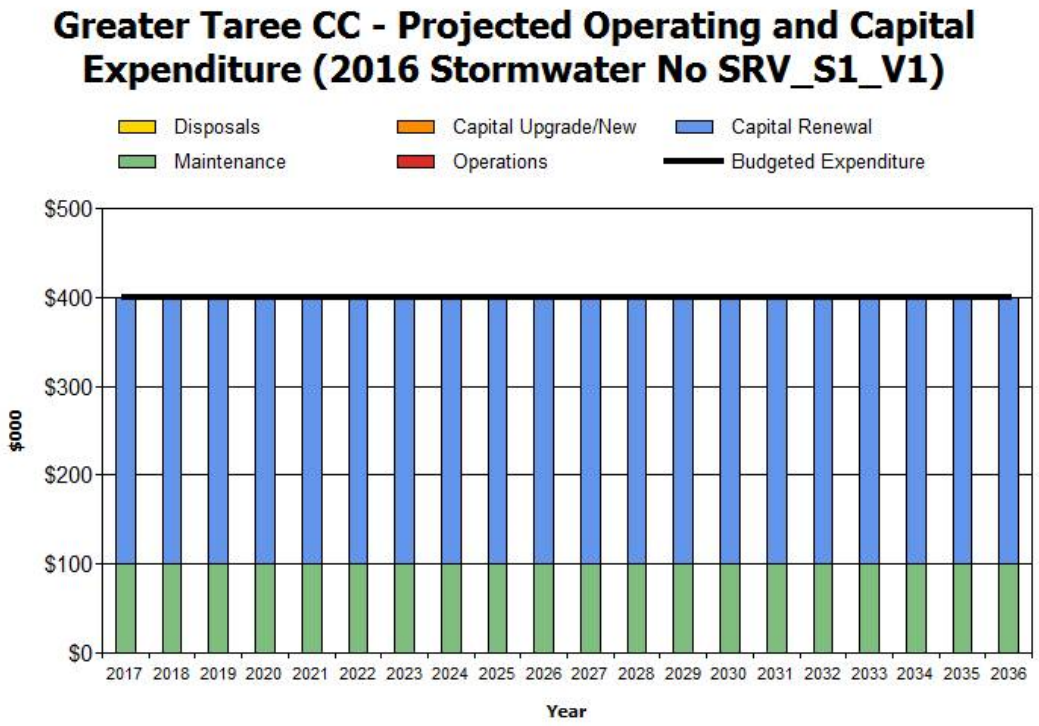


Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2017	$73,709	$8,864	-$64,845	-$64,845
2018	$11,630	$6,837	-$4,793	-$69,638
2019	$12,575	$8,862	-$3,713	-$73,351
2020	$10,200	$7,757	-$2,443	-$75,794
2021	$11,580	$10,712	-$868	-$76,662
2022	$12,080	$11,245	-$835	-$77,497
2023	$12,180	$12,180	$0	-$77,497
2024	$12,180	$12,180	$0	-$77,497
2025	$12,180	$12,180	$0	-$77,497
2026	$12,180	$12,180	$0	-$77,497
2027	$12,180	$12,180	$0	-$77,497
2028	$12,180	$12,180	$0	-$77,497
2029	$12,180	$12,180	$0	-$77,497
2030	$12,180	$12,180	$0	-$77,497
2031	$12,180	$12,180	$0	-$77,497
2032	$12,180	$12,180	$0	-$77,497
2033	$12,180	$12,180	$0	-$77,497
2034	$12,180	$12,180	$0	-$77,497
2035	$12,180	$12,180	$0	-$77,497
2036	$12,180	$12,180	$0	-$77,497

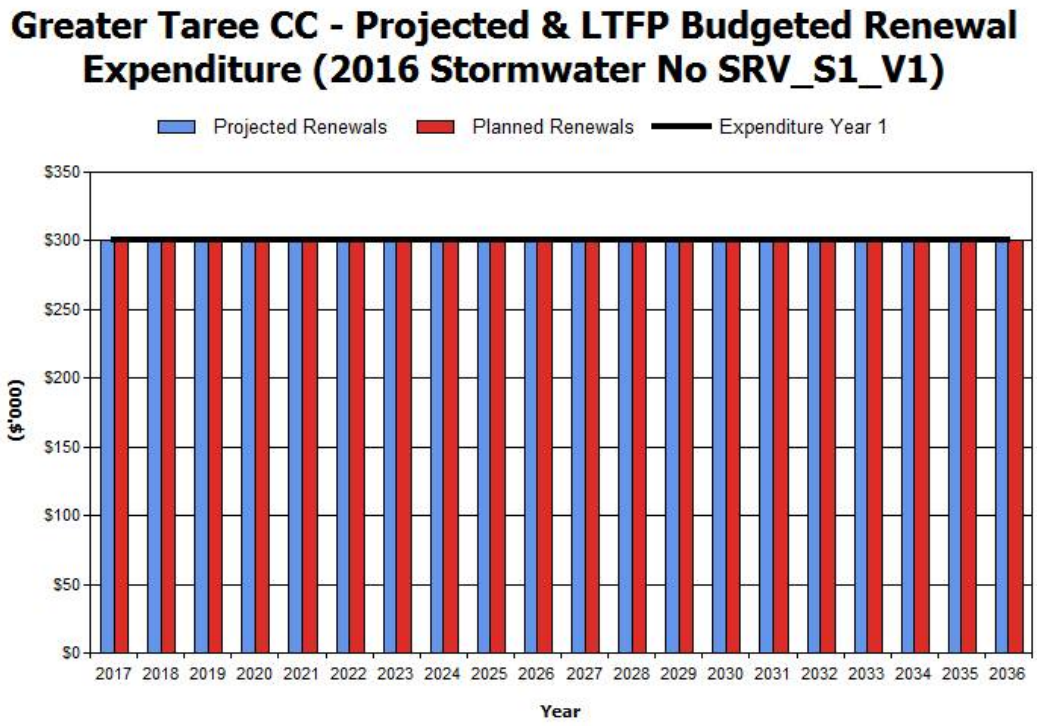
Stormwater Drainage Scenario 1 & 2 – Current LTFP (Including year 1 backlog)



2016 Stormwater No SRV_S1_V1	
Executive Summary - What does it cost?	**($000)**
10 year total cost [10 yr Ops, Maint, Renewal & Upgrade Proj Exp]	**$4,000**
10 year average cost	**$400**
10 year total LTFP budget [10 yr Ops, Maint, Renewal & Upgrade LTFP Budget]	**$4,000**
10 year average LTFP budget	**$400**
10 year AM financial indicator	**100%**
10 year average funding shortfall	**$0**

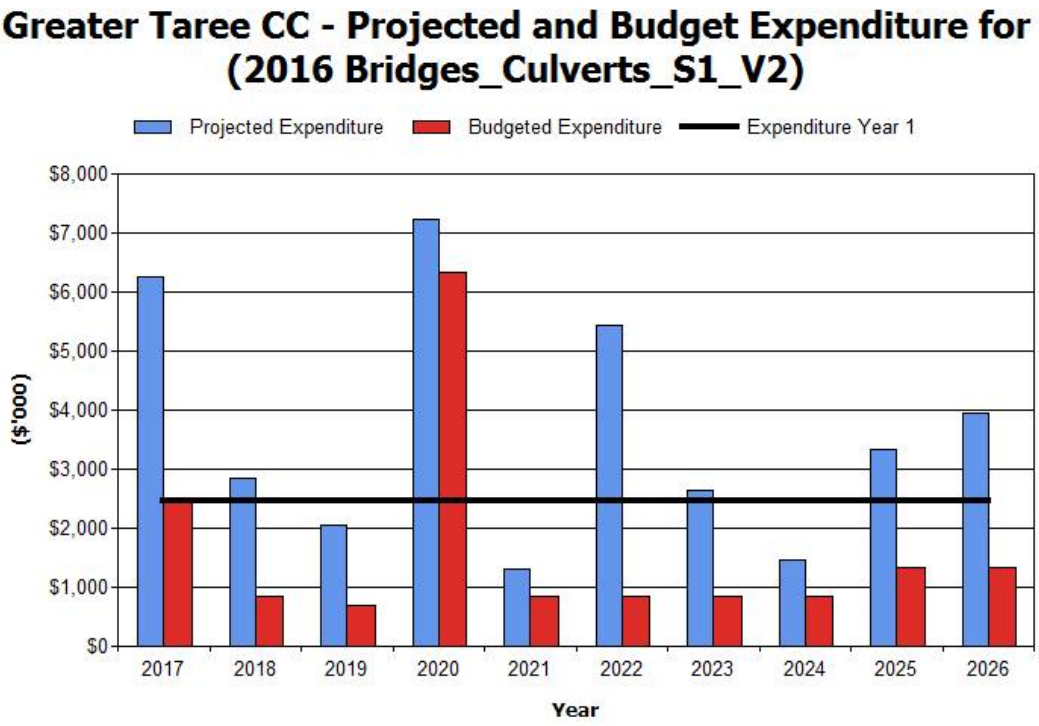


2016 Stormwater No SRV_S1_V1	
Asset Renewal Funding Ratio	
Asset Renewal Funding Ratio	**100%**
Long Term - Life Cycle Costs	
Life Cycle Cost [average 10 years projected ops, maint exp and deprn.]	**$957**
Life Cycle Exp [average 10 years LTFP budget ops, maint & capital renewal exp]	**$400**
Life Cycle Gap [life cycle expenditure – life cycle cost (-ve = gap)]	**$-557**
Life Cycle Indicator [life cycle expenditure / life cycle cost]	**42%**
Medium Term - 10 year financial planning period	
10 yr Ops, Maint & Renewal Projected Expenditure	**$400**
10 yr Ops, Maint & Renewal LTFP Budget Exp	**$400**
10 year financing shortfall [10 yr proj exp - LTFP Budget exp]	**$0**
10 year financing indicator [LTFP Budget exp / 10 yr proj exp]	**100%**
Medium Term – 5 year financial planning period	
5 yr Ops, Maint & Renewal Projected Expenditure	**$400**
5 yr Ops, Maint & Renewal LTFP Budget Exp	**$400**
5 year financing shortfall [5 yr proj exp - LTFP Budget exp]	**$0**
5 year financing indicator [LTFP Budget exp / 5 yr proj exp]	**100%**



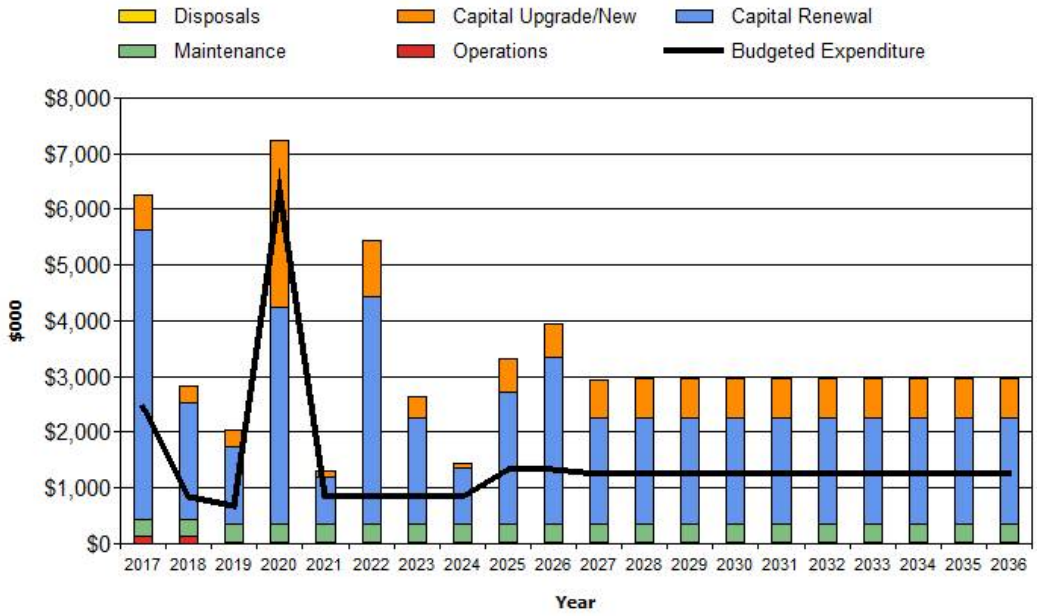
Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2017	$300	$300	$0	$0
2018	$300	$300	$0	$0
2019	$300	$300	$0	$0
2020	$300	$300	$0	$0
2021	$300	$300	$0	$0
2022	$300	$300	$0	$0
2023	$300	$300	$0	$0
2024	$300	$300	$0	$0
2025	$300	$300	$0	$0
2026	$300	$300	$0	$0
2027	$300	$300	$0	$0
2028	$300	$300	$0	$0
2029	$300	$300	$0	$0
2030	$300	$300	$0	$0
2031	$300	$300	$0	$0
2032	$300	$300	$0	$0
2033	$300	$300	$0	$0
2034	$300	$300	$0	$0
2035	$300	$300	$0	$0
2036	$300	$300	$0	$0

Bridges Scenario 1 & 2 – Current LTFP (Including year 1 backlog)

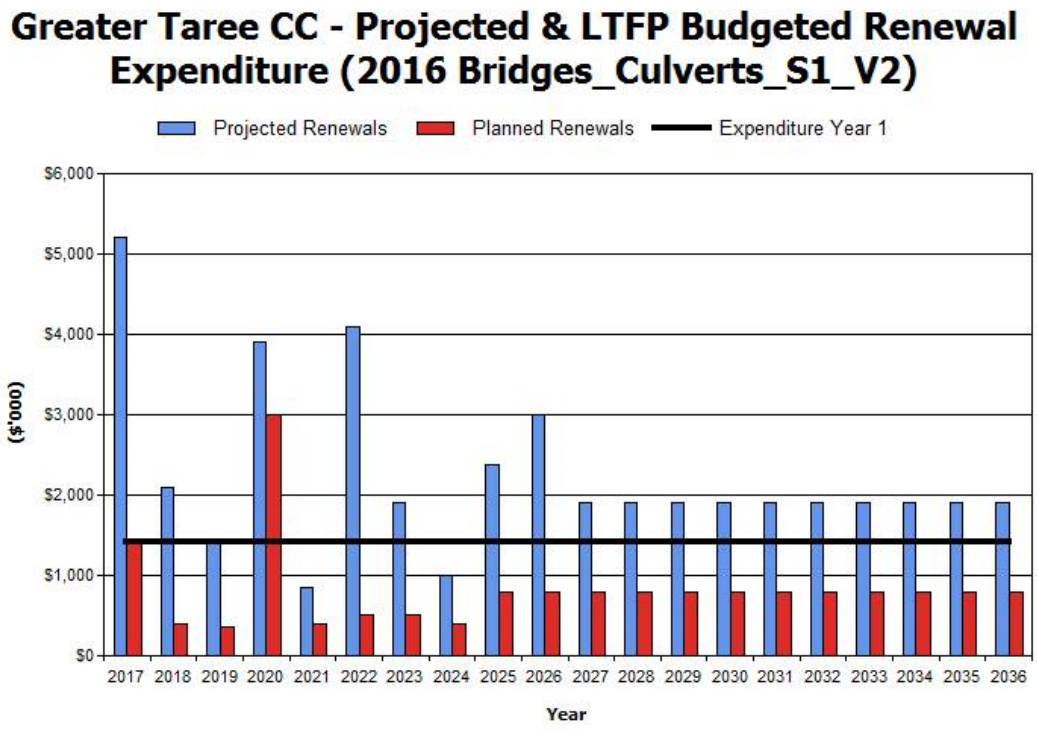


2016 Bridges_Culverts_S1_V2	
Executive Summary - What does it cost?	**($000)**
10 year total cost [10 yr Ops, Maint, Renewal & Upgrade Proj Exp]	**$36,494**
10 year average cost	**$3,649**
10 year total LTFP budget [10 yr Ops, Maint, Renewal & Upgrade LTFP Budget]	**$16,365**
10 year average LTFP budget	**$1,637**
10 year AM financial indicator	**45%**
10 year average funding shortfall	**$-2,013**

Greater Taree CC - Projected Operating and Capital Expenditure (2016 Bridges_Culverts_S1_V2)



2016 Bridges_Culverts_S1_V2	
Asset Renewal Funding Ratio	
Asset Renewal Funding Ratio	**33%**
Long Term - Life Cycle Costs	
Life Cycle Cost [average 10 years projected ops, maint exp and deprn.]	**$2,327**
Life Cycle Exp [average 10 years LTFP budget ops, maint & capital renewal exp]	**$1,217**
Life Cycle Gap [life cycle expenditure – life cycle cost (-ve = gap)]	**$-1,110**
Life Cycle Indicator [life cycle expenditure / life cycle cost]	**52%**
Medium Term - 10 year financial planning period	
10 yr Ops, Maint & Renewal Projected Expenditure	**$2,949**
10 yr Ops, Maint & Renewal LTFP Budget Exp	**$1,217**
10 year financing shortfall [10 yr proj exp - LTFP Budget exp]	**$-1,733**
10 year financing indicator [LTFP Budget exp / 10 yr proj exp]	**41%**
Medium Term – 5 year financial planning period	
5 yr Ops, Maint & Renewal Projected Expenditure	**$3,073**
5 yr Ops, Maint & Renewal LTFP Budget Exp	**$1,493**
5 year financing shortfall [5 yr proj exp - LTFP Budget exp]	**$-1,580**
5 year financing indicator [LTFP Budget exp / 5 yr proj exp]	**49%**



Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2017	$5,205	$1,415	$-3,790	$-3,790
2018	$2,100	$400	$-1,700	$-5,490
2019	$1,400	$350	$-1,050	$-6,540
2020	$3,900	$3,000	$-900	$-7,440
2021	$850	$400	$-450	$-7,890
2022	$4,100	$500	$-3,600	$-11,490
2023	$1,900	$500	$-1,400	$-12,890
2024	$1,000	$400	$-600	$-13,490
2025	$2,380	$800	$-1,580	$-15,070
2026	$3,000	$800	$-2,200	$-17,270
2027	$1,900	$800	$-1,100	$-18,370
2028	$1,900	$800	$-1,100	$-19,470
2029	$1,900	$800	$-1,100	$-20,570
2030	$1,900	$800	$-1,100	$-21,670
2031	$1,900	$800	$-1,100	$-22,770
2032	$1,900	$800	$-1,100	$-23,870
2033	$1,900	$800	$-1,100	$-24,970
2034	$1,900	$800	$-1,100	$-26,070
2035	$1,900	$800	$-1,100	$-27,170
2036	$1,900	$800	$-1,100	$-28,270

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)

1) 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 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 non-critical 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 Transports 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 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 *