Richmond Valley 2025

Rich in heritage, lifestyle and opportunities

Transport Asset Management Plan
2013/2023

Resourcing Strategy
Appendix A

Adopted 21 May 2013

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This document is based on The Institute of Public Works Engineering Australia, NAMS.PLUS Asset Management Plan Template.

TABLE OF CONTENTS

ABBREVIATIONS

AAAC	Average annual asset consumption
AMP	Asset management plan
ARI	Average recurrence interval
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
DoH	Department of Health
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LCE	Life cycle expenditure
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SS	Suspended solids
vph	Vehicles per hour

GLOSSARY

Annual service cost (ASC)
An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class
Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

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

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

Assets
Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*
The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**
Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

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

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

Capital funding
Funding to pay for capital expenditure.

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

Capital investment expenditure
See capital expenditure definition

Capital new expenditure
Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure
Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure
Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretional and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, eg. widening the

sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

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

Class of assets
See asset class definition

Component
An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

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

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

Current replacement cost "As New" (CRC)
The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

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

Depreciable amount
The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

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

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

Economic life
See useful life definition.

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

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

Greenfield asset values **
Asset (re)valuation values based on the cost to initially acquire the asset.

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

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

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

Investment property
Property held to earn rentals or for capital appreciation or both, rather than for:
(a) use in the production or supply of goods or services or for administrative purposes; or
(b) sale in the ordinary course of business (AASB 140.5)

Level of service
The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost **
The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure **
The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings
Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

Maintenance and renewal gap
Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).

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

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

Materiality
An item is material is its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.
A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

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

Operating expenditure
Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.

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

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

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

Rate of annual asset consumption*
A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*
A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

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

Reactive maintenance

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

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

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

Recurrent funding
Funding to pay for recurrent expenditure.

Rehabilitation
See capital renewal expenditure definition above.

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

Renewal
See capital renewal expenditure definition above.

Residual value
The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

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

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

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

Service potential
The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*
A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (DRC/DA).

Strategic Management Plan (SA)**
Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component
Smaller individual parts that make up a component part.

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

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

Value in Use
The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows, where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary
Note: Items shown * modified to use DA instead of CRC
Additional glossary items shown **

1. EXECUTIVE SUMMARY

What Council Provides

Council provides the transport assets to enable services to be provided to the community. These include:

- Roads and associated assets
- Bridges
- Footpaths and Cycleways

What does it Cost?

There are two key indicators of cost to provide the transport assets.

§ The life cycle cost being the average cost over the life cycle of the asset, and
§ The total maintenance and capital renewal expenditure required to deliver existing service levels in the next 10 years covered by Council's long term financial plan.

The asset register carries a total renewal value for Transport assets of $282.39M. The analysis estimates that the long term life cycle cost for these assets is $9.2M per annum. Council's planned life cycle expenditure for year 1 of the asset management plan is $4.9M

The long term life cycle gap for services covered by this asset management plan is $4,345,284 per annum and the life cycle sustainability index is 0.53 A target ratio of 1.0 is desired.

The total maintenance and capital renewal expenditure required in the next 10 years is estimated at $8,035,438 per annum.

Council's maintenance and capital renewal expenditure for year 1 of the asset management plan is $4,862,400 giving a funding gap of $3,173,038 pa and a 10 year sustainability index of 0.61

This ratio is likely to improve as data in the transport register is continued to be improved, particularly in relation to further reassessing the useful life of these assets. Additionally, high importance should be placed on developing service levels that the community can, and is willing to pay for.

It is also common that the separation in actual expenditures between operations, maintenance and renewal is not highly developed, and this also will have a significant impact on improving the sustainability ratios.

It is important to continue to reassess this situation as the current ratios indicate that the current level of service being provided cannot be maintained.

Plans for the Future

Council plans to operate and transport infrastructure assets to achieve the following strategic objectives.

Ensure the infrastructure is maintained at a safe standard.

Ensure that the infrastructure provides the functions supporting the services sought by the community.

Ensure that the infrastructure provides services at the standard that the community agrees to and can afford

Measuring our Performance

Quality
Transport assets will be maintained in a reasonably usable condition. Defects found or reported that are outside our service standard will be repaired. See our maintenance response service levels for details of defect prioritisation and response time.

Function
Our intent is that these assets are maintained in partnership with other levels of government and stakeholders to meet the need of the community.

Transport assets will be maintained at a safe level and maintained as needed to ensure public safety.

We need to ensure that the key functional objectives are met.

Safety
We inspect all assets regularly and prioritise and repair defects in accordance with our inspection schedule to ensure they are safe.

The Next Steps

This actions resulting from this asset management plan are:

Continue improving our information on transport assets so that more detailed analysis of the current apparent funding shortfall can be assessed.

This will require a project level detail analysis to confirm both the scope of works required and the estimate of the associated costs.

Expenditure reporting should be improved so that the detailed expenditure relating to individual assets can be assessed. In particular greater knowledge of the proportion of expenditure on maintenance as compared to renewal or expansion is necessary.

Re analyse the gap required to fund transport assets at the desired service levels, and detail the consequences on service level and risk should additional funding not be provided. This further analysis will enable the relative costs and priorities to be balanced with the funding provided in Council's Long Term Financial Plan, and for consultation with the community.

2. INTRODUCTION

2.1 Background

This asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate the funding to provide the required levels of service.

The asset management plan is to be read with the following associated planning documents:

- Richmond Valley Council Asset Management Strategy
- Richmond Valley Council Asset Management Policy
- Richmond Valley Council Management Plan

This asset management plan covers the following infrastructure assets:

- Aerodrome pavements
- Bridges
- Bus Shelters
- Carparks
- Footpaths and Cycleways
- Guard Rail
- Guard Terminal
- Major Culverts
- Minor Culverts
- Roadside Furniture
- Sealed Roads
- Sealed Roads Structure
- Sign Panels
- Sign Structures
- Surface Drainage
- Traffic Management
- Unsealed Roads

Table 2.1. Assets covered by this Plan

Asset Category	Dimension	Replacement Value ($M)
Aerodrome pavements		$3,035,409.09
Bridges	124 Bridges	$43,351,662.13
Bus Shelters	108 Bus Shelters	$965,144.40
Carparks		$110,602.08
Footpaths and Cycleways	Length of 49,101 m Area of 94,143 m²	$11,851,752.15
Guard Rail	315 items 11.5 km	$1,418,196.04
Guard Terminal	358 items 2.7km	$2,127,299.60
Major Culverts	22 Major Culverts	$1,121,385.48
Minor Culverts	2209 Minor Culverts	$11,474,659.91
Roadside Furniture	10977 Items	$837,007.07
Sealed Roads	Length of 521 km Area of 2,740,181 m²	$30,216,143.54
Sealed Roads Structure	Length of 520 km Area of 2,735,131 m²	$124,312,914.44
Sign Panels	6,045 items	$385,858.99
Sign Structures	3,990 items0	$334,004.07
Surface Drainage	128 km	$25,942,453.01
Traffic Management	216 Items	$4,232,659.41
Unsealed Roads	Length of 549 km Area of 2,325,411 m²	$20,567,992.24
	TOTAL	$282,285,143.65 *

*There is a minor variation in the asset data values and the financial valuation ($282,332,588) due to some updates that are currently in progress.

Key stakeholders in the preparation and implementation of this asset management plan are:

- Richmond Valley Council Staff
    - Employees of Council have the role of managing the data associated with infrastructure assets, preparing, implementing, managing and reviewing this Asset Management Plan
- Elected Members
    - Elected Members of Council have the role of adopting Asset Management Plans and liaising with the community on the priority of services, the service standards and the balance between services and cost
- Community
    - Will ultimately provide input into the services required and the cost the community is prepared to pay

2.2 Goals and Objectives of Asset Management

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

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

- Taking a life cycle approach,
- Developing cost-effective management strategies for the long term,
- Providing a defined level of service and monitoring performance,
- Understanding and meeting the demands of growth through demand management and infrastructure investment,
- Managing risks associated with asset failures,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.[1]

[1] IIMM 2006 Sec 1.1.3, p 1.3

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

Council's vision is:

The development of community and natural attributes of the area to enable a pleasant and sustainable lifestyle.

Council's mission is:

Develop our area with our community by effective leadership and efficient service.

Relevant Council goals and objectives and how these are addressed in this asset management plan are:

Table 2.2. Council Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in Asset Management Plan
To maximise community wellbeing, public health and safety.	To ensure a safe environment for the community.	The provision and maintenance of transport infrastructure is an important component contributing to the cultural and social needs of the community
To provide infrastructure of a high standard that supports community wellbeing, economic growth and environmental quality.	To construct Council infrastructure that is safe in design and use, is in the best interest of the community and employs sustainable environmental merits.	A primary objective of the asset management plan is to develop a lifecycle approach to the provision of transport infrastructure. This aims to minimise the life cycle cost of assets while maximising the service that is delivered
To ensure sound corporate governance through effective strategic/financial planning, budget control, statutory compliance and organisational management.	To implement asset management awareness corporate wide by the writing and adoption of Asset Management Policy, Asset Management Strategy and Asset Management Plans.	Provide transport facilities that support community needs. Communicate options for future planning Achieve lowest life cycle cost by appropriate planning. Manage and control risk

2.3 Plan Framework

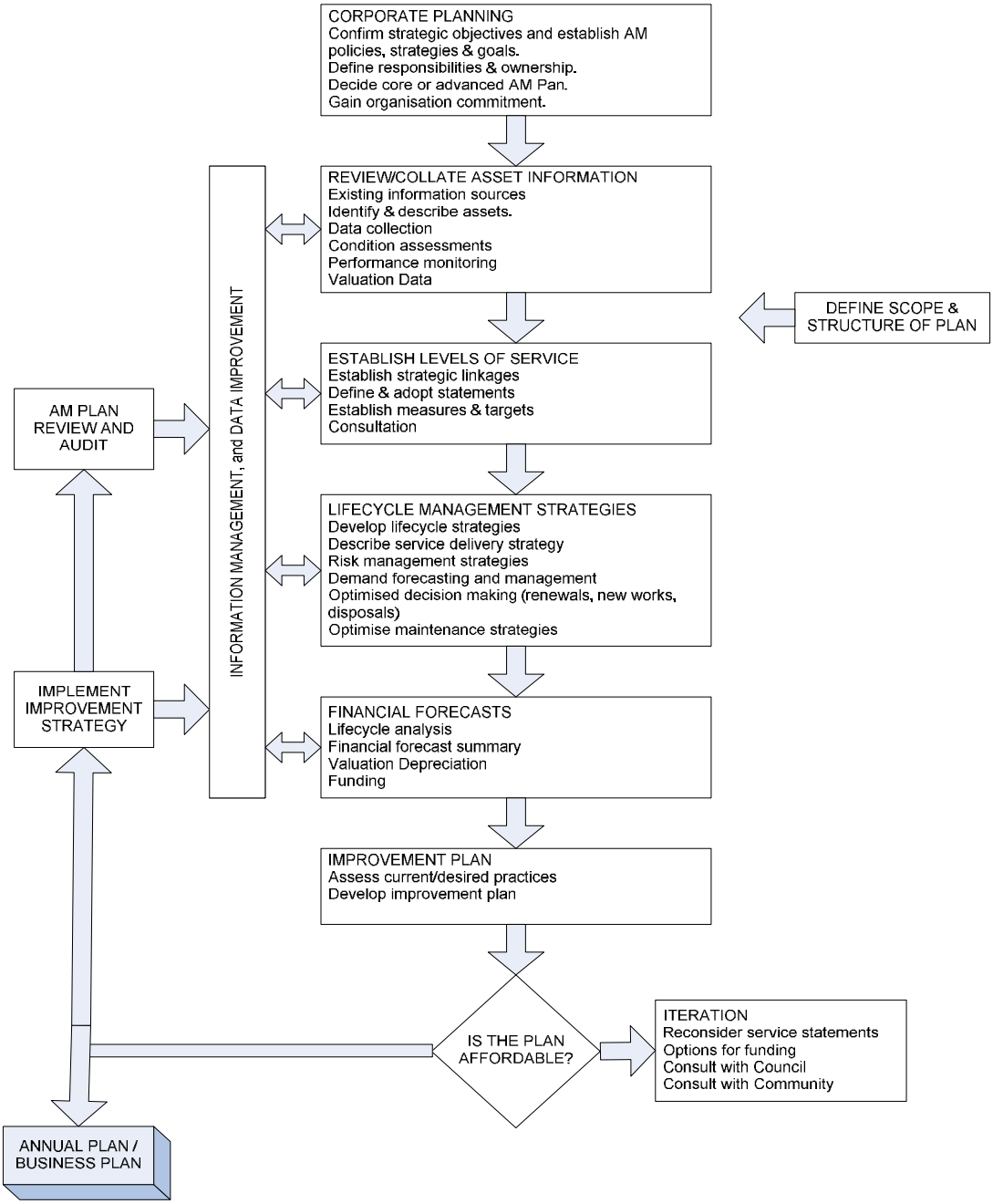
Key elements of the plan are

- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council will manage its existing and future assets to provide the required services
- Financial summary – what funds are required to provide the required services.

- Asset management practices
- Monitoring – how the plan will be monitored to ensure it is meeting Council's objectives.
- Asset management improvement plan

A road map for preparing an asset management plan is shown below.

Road Map for preparing an Asset Management Plan
Source: IIMM Fig 1.5.1, p 1.11



2.4 Core and Advanced Asset Management

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

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

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

Richmond Valley Council undertook a community satisfaction survey in 2009. The results of the survey for Roads and Traffic are set out below.

Table 3.1. Community Satisfaction Survey Levels

Item	Importance	Performance	Gap
Roads and Traffic			
Condition of urban roads	6.05	3.05	3.00
Condition of sealed rural roads	6.08	2.97	3.11
Condition of unsealed rural roads	5.83	2.64	3.19
Roadside management (eg trees, slashing, litter)	5.87	3.07	2.80
Condition of footpaths	5.90	3.36	2.54
Pedestrian safety	6.10	3.77	2.33
Management of traffic flow (eg lights, roundabouts, street signs)	6.02	4.25	1.77
Availability of parking in the CBD areas	5.88	4.06	1.81

Commentary:

Substantial Gap means, suggesting real concern and frustration from the community, were found with almost all areas under Roads and Traffic.

Conditions of urban roads, sealed rural roads, and *unsealed rural roads* were associated with Gap means of 3.00 and above, suggesting strong need of attention.

Further to this survey the Draft Community Strategic Plan 2011/2024 has been prepared to update and more currently reflect the main priorities and aspirations of the community.

3.2 Legislative Requirements

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

Table 3.2. Legislative Requirements

Legislation	Requirement
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments. Draft Bill 2009 includes the preparation of a long term financial plan supported by asset management plans for sustainable service delivery. 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.
Public Works Act 1912	Sets out the role of Council in the planning and construction of new assets.
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.
Occupational Health and Safety Act 2000 and Rehabilitation Act 1987	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.
Threatened Species Conservation Act 1995	An Act to conserve threatened species, populations and ecological communities of animals and plants.
Protection of the Environment Operations Act	Council is required to exercise due diligence to avoid environmental impact

1997	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.
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.
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.
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.
Disability Discrimination 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.
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.
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.
AS 1742	Australian Standard 1742 which refers to a variety of road and traffic issues.
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.

3.3 Current Levels of Service

Council has defined service levels in two terms.

Community Levels of Service relate to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:

Service Criteria	Technical measures may relate to

Quality	Smoothness of roads
Quantity	Area of parks per resident
Availability	Distance from a dwelling to a sealed road
Safety	Number of injury accidents

Council's current service levels are detailed in Table 3.3.

Table 3.3. Current Service Levels - Transport

COMMUNITY LEVELS OF SERVICE				
Theme	Community Expectation	Measure	Current Service Level Response	Acceptable Level of Service Response
Quality	Smooth Roads and Footpaths Do not pond water Look well maintained	Customer surveys Customer requests (DataWorks)	To be provided from the Resident Survey	Requests received should not increase annually
Function	Provide access to facilities and transport. Accessible Water drained by kerb and gutter	Customer surveys Customer requests (DataWorks)	To be provided from the Resident Survey	Requests received should not increase annually
Safety	Free from hazards such as raised edges or severe cracking	Number of injury accidents (Accident History)	Should commence monitoring trend to determine if accidents are increasing	Accidents attributable to path condition should be reduced annually

TECHNICAL LEVELS OF SERVICE				
Budget Area	Activities	Measure	Current Funded Level of Service	Optimal Level of Service
Operations	Various	Various	See Appendix A for details	
Operations Cost			$1,239,030 pa	Will need to increase to $1,243,210 pa over the next 20 years to maintain current service levels
Maintenance	Various	Various	See Appendix A for details	Regular Inspections Planned Maintenance
Maintenance Cost			$2,334,282 pa	Will need to increase to $2,341,940 pa over the next 20 years to maintain current service levels

Renewal	Various	Replacement Cycle	See Appendix A for details and Appendix B for Reseal details.	Renewal cycle is not fully met Increasing renewal required in medium to longer term, due to the age of the infrastructure network.
Renewal Cost			$2,527,887 pa	$5,699,256 average pa required for renewals during the next 10 years

Upgrade/New	Various	Various	Minimum propsed	Works to be identified in CSP
Upgrade/New Cost			$48,004 pa	Not identified Assumed constant at $263,585 pa

3.4 Desired Levels of Service

At present, indications of desired levels of service are obtained from various sources including the 2009 Resident Satisfaction survey, residents' feedback to Councillors and staff, service requests and correspondence. Council has yet to quantify desired levels of service, as this must be done in conjunction with balancing to Council's Long Term Financial Plan (LTFP). This will be done in future revisions of this asset management plan.

4. FUTURE DEMAND

4.1 Demand Forecast

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

Demand factor trends and impacts on service delivery are summarised in Table 4.1.

Table 4.1. Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection	Impact on services
Population	Move towards higher density living and higher resident expectations.	Population increasing	General increase in demand for all infrastructure services.
Demographics	Increasing shift towards average age increasing	Aging population expected to continue	Risk associated with much infrastructure eg footpaths increases with an aging population.
Transportation Changes	Environmental responsibility, rising fuel prices and traffic congestion all build the need for a better integrated transport system with reduced reliance on private cars.	Road infrastructure will need to: • Provide for increased use of public transport • Encourage use a bicycles both on and off road • Include an accessible footpath networks	The design and nature of the road network may need to be modified to suit future needs eg. • Increased Public Transport • Ride quality and adequate width for on road bicycle use
Increasing Costs	The cost to construct, maintain and renew infrastructure is increasing at a rate greater than council's revenue	Anticipated to continue	The need to carefully target and plan infrastructure is increasing in importance as maximising the service that can delivered within the funding limitations will be under pressure.
Environment and Climate Change	Current position is known	Future is uncertain but is likely to change	Some services such as the road network may be impacted by climate/rainfall and severe events. Addition costs may be impose to fund environmental initiatives eg carbon trading

4.2 Changes in Technology

Technology changes are forecast to have only minor effect on the delivery of services covered by this plan.

The main areas where technology changes may affect the delivery of the services covered by this plan are the following areas.

Table 4.2. Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
Change in road and footpath materials and construction methods	May increase the life of roads and footpaths by the use of improved material technology. Reduce the susceptibility to damage. eg lessen the impact of trees by provision of root barriers, use of flexible materials etc

4.3 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.

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this asset management plan.

Table 4.3. Demand Management Plan Summary

Service Activity	Demand Management Plan
All infrastructure assets	Analyse cost of providing service
	Assess current capacity to fund at the current level of service
	Monitor community expectations
	Develop detailed asset management plans which link to long term financial plans
	Balance priorities for infrastructure with what the community is prepared to pay for
	Communicate service levels and financial capacity with the community

4.4 New Assets from Growth

The new assets required to meet growth will be acquired from land developments and constructed by Council. The new asset values are summarised in Fig 1.

Fig 1. New Assets from Growth (New Greenfield Subdivisions)

(No growth applied)

The growth of additional assets from new subdivisions is not anticipated to have a significant impact on the extent of the infrastructure assets managed by council, and has not been included in this first asset management plan.

Addition infrastructure donated to council from any major development will be added to Council's asset inventory and included in the analysis for future updates of the Transport Asset Management Plan.

Other new infrastructure assets will be created as Council either upgrades or expansion of its infrastructure asset portfolio. Even so the renewal cost impacts of these works will be outside of the time scope of this plan.

It is important to note that acquiring additional assets from growth or by provision of additional infrastructure services, will ultimately commit council to fund ongoing operations and maintenance costs for the period that the service provided from the assets is required. These future costs should be identified and considered in developing forecasts of future operating and maintenance costs.

5. LIFECYCLE MANAGEMENT PLAN

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

5.1 Background Data

5.1.1 Physical parameters

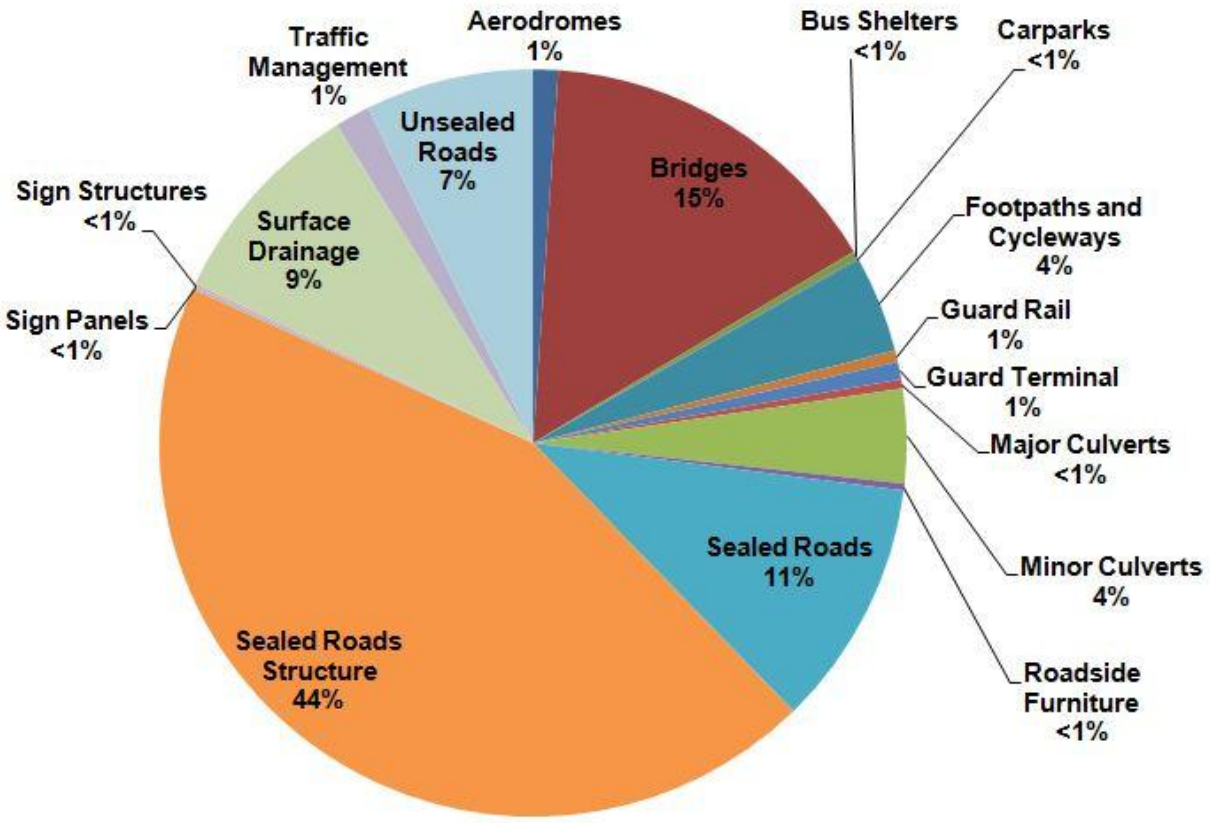
The assets covered by this asset management plan are shown below.

Asset Category	Dimension	Replacement Value ($M)
Aerodromes		$3,035,409.09
Bridges	124 Bridges	$43,351,662.13
Bus Shelters	108 Bus Shelters	$965,144.40
Carparks		$110,602.08
Footpaths and Cycleways	Length 49,101 m, Area of 94,143 m²	$11,851,752.15
Guard Rail	315 items 11.5 km	$1,418,196.04
Guard Terminal	358 items 2.7km	$2,127,299.60
Major Culverts	22 Major Culverts	$1,121,385.48
Minor Culverts	2209 Minor Culverts	$11,474,659.91
Roadside Furniture	10977 Items	$837,007.07
Sealed Roads	Length 521 km, Area of 2,740,181 m²	$30,216,143.54
Sealed Roads Structure	Length 520 km, Area of 2,735,131 m²	$124,312,914.44
Sign Panels	6,045 items	$385,858.99
Sign Structures	3,990 items0	$334,004.07
Surface Drainage	128 km	$25,942,453.01
Traffic Management	216 Items	$4,232,659.41
Unsealed Roads	Length 549 km, Area of 2,325,411 m²	$20,567,992.24
	TOTAL	$282,285,143.65 *

*There is a minor variation in the asset data values and the financial valuation ($282,332,588) due to some updates that are currently in progress.

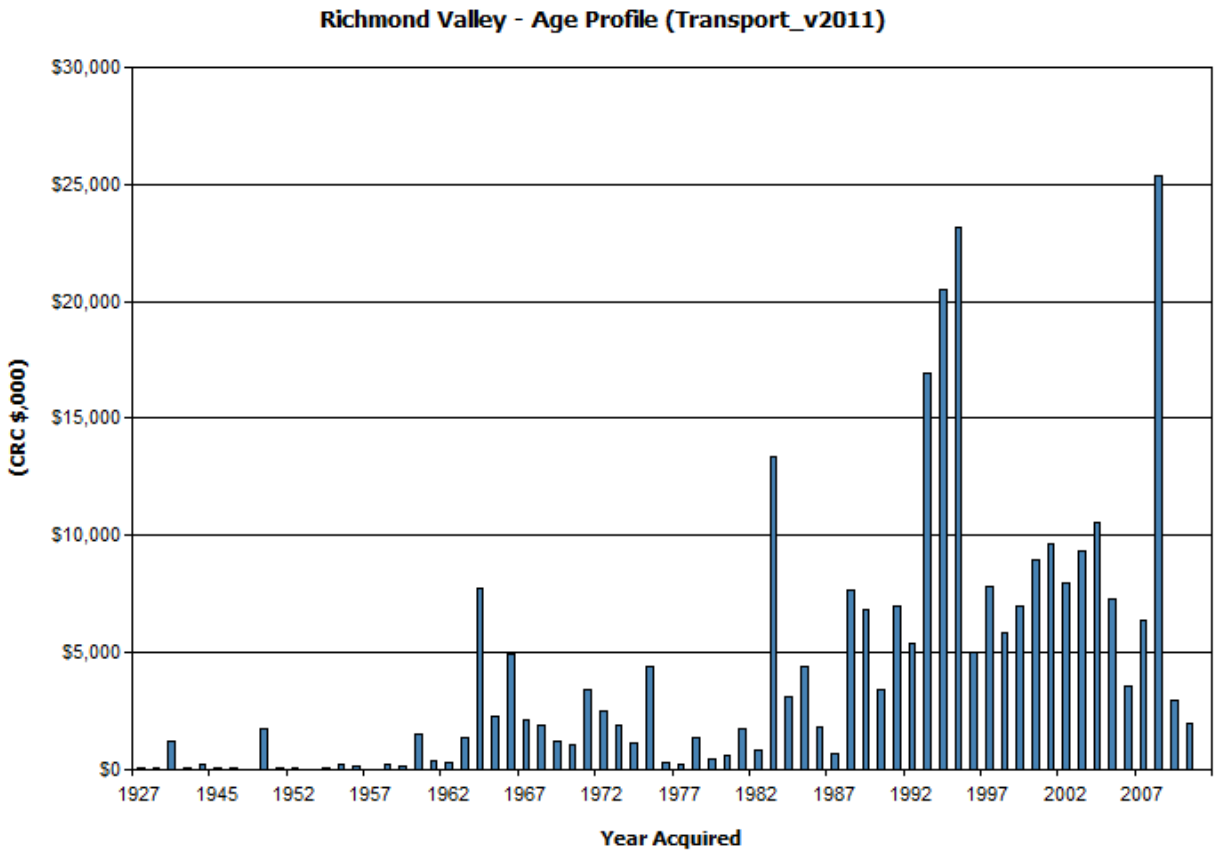
Proportion of Value by Asset Type

This inventory is has been compiled from the best data currently available and provides an indication of the value and components comprising Richmond Valley Council's transport assets.



The age profile of Council's assets is shown below.

Fig 2. Asset Age Profile



The age profile of infrastructure assets shows that significant construction took place in the post World War 2 time period. It is likely that much of this infrastructure will be well through its useful life, and will require renewal in the near future. The profile also indicates that the age data on infrastructure requires development. Peaks and gaps in the data are indicative that age has been estimated or determined from a broad condition assessment and by using an estimated life.

Whilst this is quite satisfactory for broad analysis further refinement of this data will improve the quality of information available for future planning decisions, in particular for developing a program of works for the 10 year long term financial plan.

5.1.2 Asset capacity and performance

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

Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

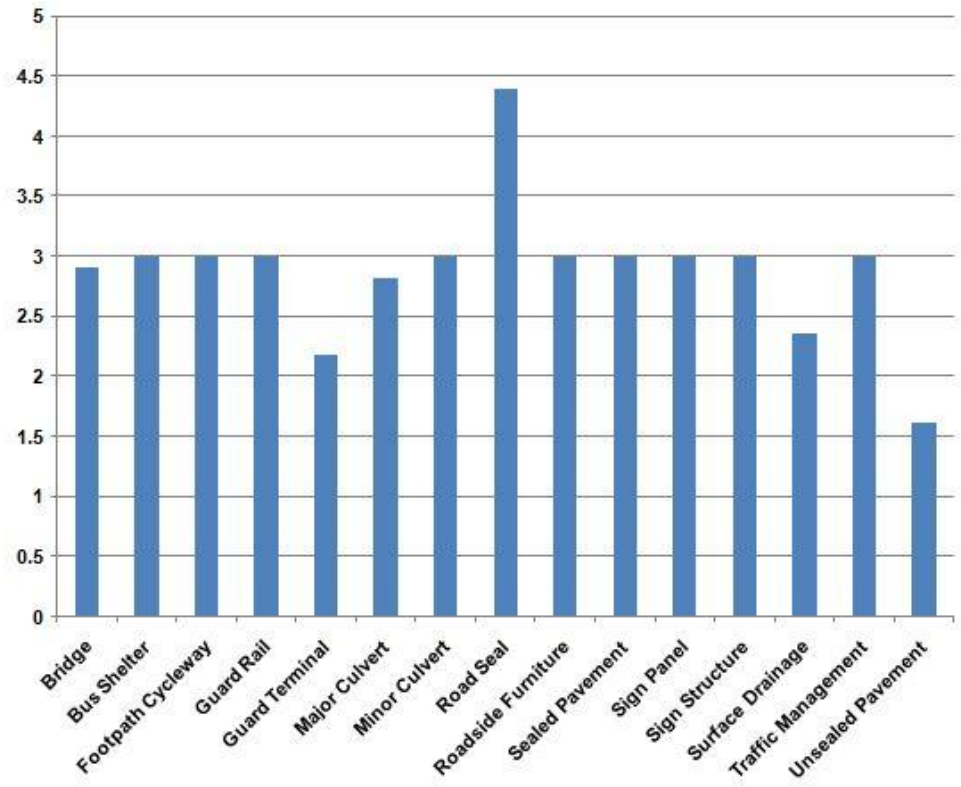
Table 5.1.2. Known Service Performance Deficiencies

Location	Service Deficiency
For the purposes of this first overview asset management specific deficiencies have not been identified	In the development of next asset management plans, and in particular as these plans are balanced with the Long Term Financial Plans service deficiencies will be identified.

5.1.3 Asset Condition

The average condition profile of Council's transport assets is shown below.

Fig 3. Asset Condition Profile



Condition is measured using a 1 – 5 rating system.[2]

Rating	Description of Condition
1	Excellent condition: Only planned maintenance required
2	Very good: Minor maintenance required plus planned maintenance
3	Good: Significant maintenance required
4	Significant renewal/upgrade required
5	Poor: Unserviceable

[2] IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

Fig 3 identifies that most asset groups are good to average in condition. This is important to monitor as these assets are well though their useful life.

5.1.4 Asset Valuations

The value of the infrastructure assets included in this asset management plan is summarised below. The value of assets is based on Council's technical asset register. Revaluation of these assets is required by the NSW Department of Local Government to meet "Fair Value". Assets are valued at "greenfield rates".

Current Replacement Cost	$282,332,588
Average Annual Asset Consumption (AAAC) ,	$6,873,284
Depreciated Replacement Cost	$182,532,067

Council's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion.

Asset Consumption	2.4 %
Asset Renewal	0.9 %
Annual Upgrade/expansion	0.02 %

5.2 Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the infrastructure risk management plan are summarised in Table 5.2.

Table 5.2. Critical Risks and Treatment Plans

Asset at Risk	What can happen?	Risk rating (VH, H)	Risk treatment plan
Road Pavement	Maintenance costs increasing due to inadequate renewal program	High	Improve data, determine priorities based on lifecycle costs, service and risk criteria, develop prioritised program for renewal
Transport Assets (General)	Assets deteriorate to a lesser service standard and higher risk situation	High	Improve data, determine priorities based on service and risk criteria, develop prioritised program for renewal. Target funding to maintain service levels.

5.3 Routine Maintenance Plan

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

5.3.1 Maintenance plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

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

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

Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, etc. This work generally falls below the capital/maintenance threshold.

Maintenance expenditure trends are shown in Table 5.3.1

Table 5.3.1. Maintenance Expenditure Trends

	Maintenance Expenditure (Average)		
	Reactive	**Planned**	**Cyclic**
Transport	$2,334,283	Not identified separately	Not identified separately
TOTAL	$2,334,283		

Planned maintenance work has not been identified separately. Future analysis of maintenance expenditure identifying the proportion of planned expenditure would be a useful indicator, as planned expenditure will achieve higher efficiency than reactive maintenance expenditure.

Maintenance expenditure levels are considered to be adequate to meet required service levels. These funding levels are substantially higher than what is currently considered as renewal. It is likely that a component of expenditure considered as maintenance is contributing to the renewal of these assets.

Future revision of this asset management plan will include closer linking of required maintenance expenditures with required service levels. It is important to monitor maintenance trends as increased maintenance costs are symptomatic with inadequate renewal expenditure.

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

5.3.2 Standards and Specifications

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

Australian Standard 1472

Northern Rivers Local Government Construction Manual

Northern Rivers Local Government Development and Design Manual

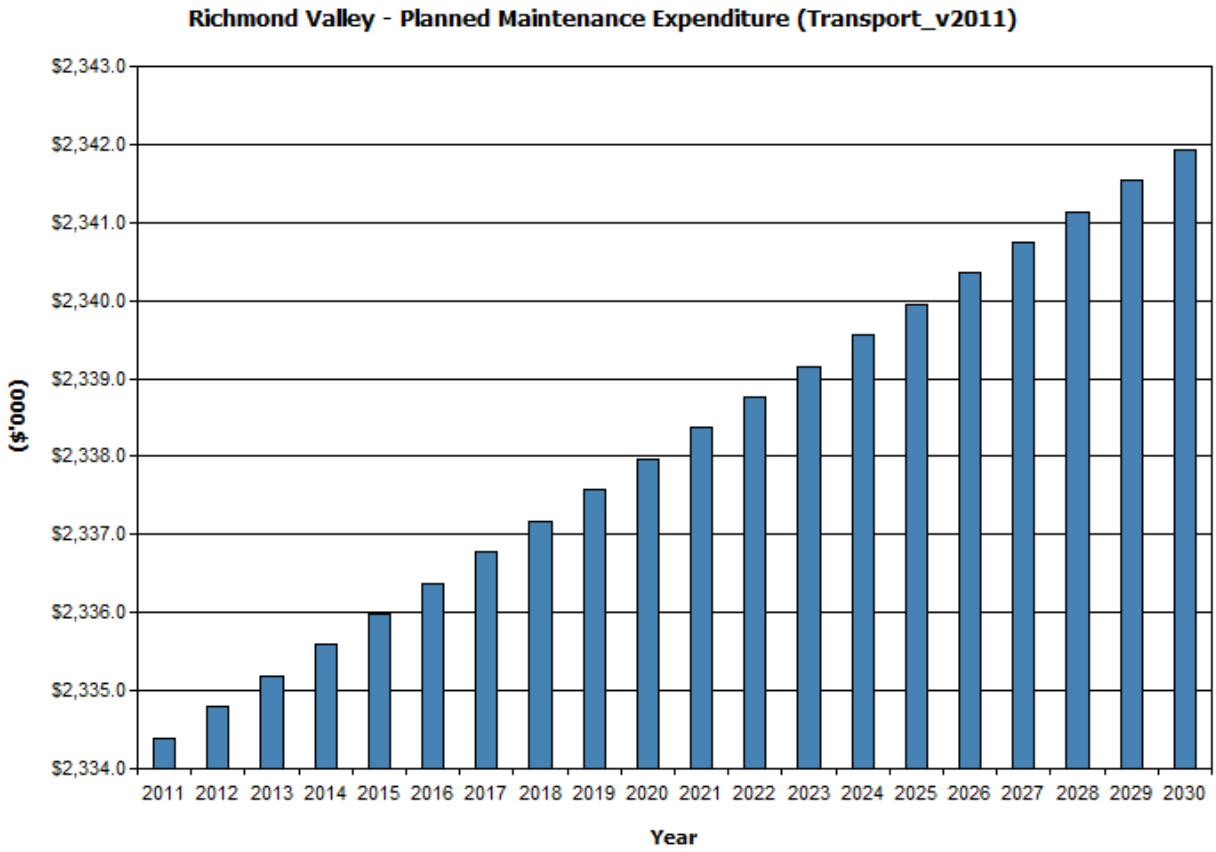
Austroads Standards

Roads and Traffic Authority – Road Design Guide

5.3.3 Summary of Future Maintenance Expenditures

Future maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Fig 4. Note that all costs are shown in current 2010 dollar values.

Fig 4. Planned Maintenance Expenditure



The increase in maintenance expenditure required over the period of the asset management plan due to additional new assets being included. It is important to recognise that new or expansion of the asset base would result in additional maintenance and operational costs as well as the future capital renewal.

Deferred maintenance, ie works that are identified for maintenance and unable to be funded are to be included in the risk assessment process in the infrastructure risk management plan.

Maintenance is funded from Council's operating budget and grants where available. This is further discussed in Section 6.2.

5.4 Renewal/Replacement Plan

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

5.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the asset register worksheets on the *'Planned Expenditure template'*. Candidate proposals are inspected to verify accuracy of remaining life estimate 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 Table 5.4.1.

Table 5.4.1 Renewal Priority Ranking Criteria

Criteria	Weighting
Available budget	No weighting criteria determined
Condition	No weighting criteria determined
Risk	No weighting criteria determined
Demand	No weighting criteria determined

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

Examples of low cost renewal include pavement stabilisation.

5.4.2 Renewal standards

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

Australian Standard 1472

Northern Rivers Local Government Construction Manual

Northern Rivers Local Government Development and Design Manual

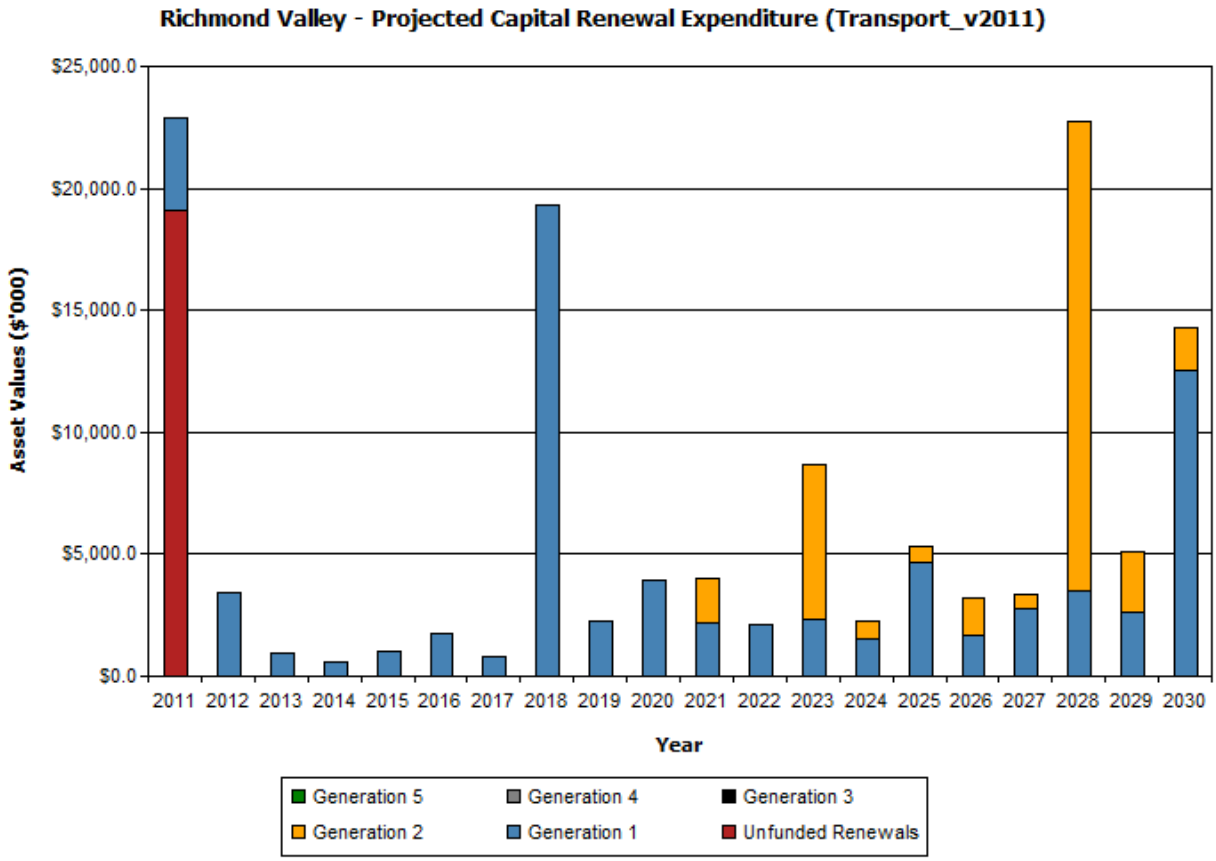
Austroads Standards

Roads and Traffic Authority – Road Design Guide

5.4.3 Summary of future renewal expenditure

Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Fig 5. Note that all costs are shown in current 2010 dollar values.

Fig 5. Projected Capital Renewal Expenditure



The high value of "Unfunded Renewals" in the first year of the planning period indicates assets which have exceeded their theoretical useful life. This provides a useful starting point for reviewing the current asset data inventory and determining whether and when these assets should be renewed. This decision will be a balance between cost, desired service levels and risk. This review will also provide valuable information to validate and improve the useful lives used in the asset inventory.

Unfunded Renewals, ie those assets identified for renewal and not scheduled for renewal in capital works programs should also be included in the risk assessment process in the risk management plan.

Renewals are to be funded from Council's capital works program and grants where available. This is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade Plan

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

5.5.1 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor or community requests, proposals identified by strategic plans or partnerships with other

organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed below.

Table 5.5.1 New Assets Priority Ranking Criteria

Criteria	Weighting
Expansion of transport assets is made corporately to meet community expectations	Assessed on merit
Access and Safety	Assessed on merit

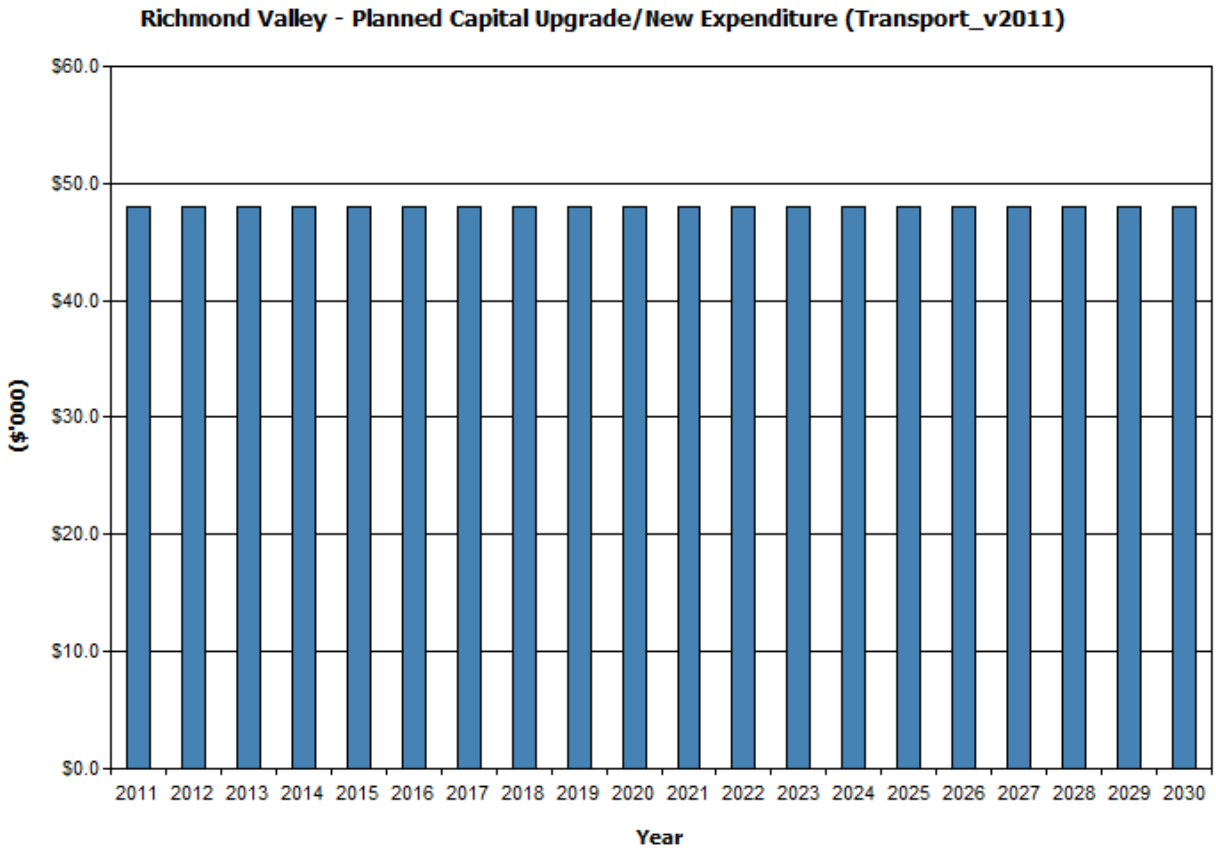
5.5.2 Standards and specifications

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

5.5.3 Summary of future upgrade/new assets expenditure

Planned upgrade/new asset expenditures are summarised in Fig 6. All costs are shown in current 2010 dollar values.

Fig 6. Planned Capital Upgrade/New Asset Expenditure



The current expenditure on Upgrade/New assets of $48,004 per annum is assumed as constant for the period of the asset management plan. This should be reassessed in future revisions of this plan.

New assets and services are to be funded from Council's capital works program and grants where available. This is further discussed in Section 6.2.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any.

Table 5.6 Assets identified for Disposal

Asset	Reason for Disposal	Timing	Cashflow from disposal
No assets identified for disposal in this overview asset management plan	Disposals will be identified as part of balancing future Asset Management Plans with the Long Term Financial Plan, and will include appropriate consultation with relevant stakeholders		

As cash flow projections from asset disposals are not available, these will be developed in future revisions of this asset management plan.

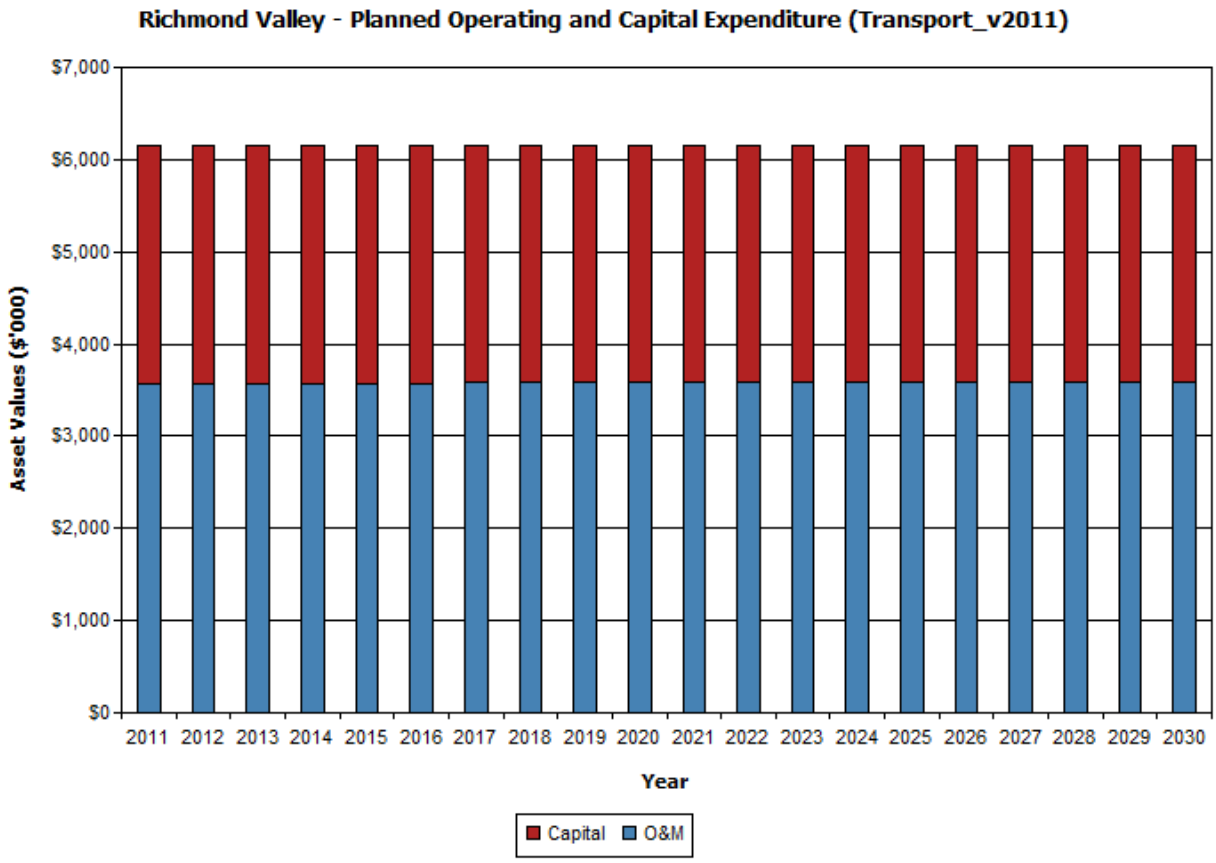
6. FINANCIAL SUMMARY

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 Statements and Projections

The financial projections are shown in Fig 7 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Fig 7. Planned Operating and Capital Expenditure



Note that all costs are shown in current 2010 dollar values.

The increase in operation and maintenance costs over the period of the plan reflects the need for additional expenditure associated with the additional and upgraded assets constructed.

6.1.1 Sustainability of Service Delivery

There are two key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs and medium term costs over the 10 year financial planning period.

Long Term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include maintenance and asset consumption (depreciation expense). The annual average life cycle cost for the services covered in this asset management plan is $9,207,684

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals.

The life cycle expenditure at the start of the plan is $4,862,400 per annum.

A gap between life cycle costs and life cycle expenditure gives an indication as to whether present consumers are paying their share of the assets they are consuming each year. The purpose of this asset management plan is to identify levels of service that the community needs and can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

The long term life cycle gap for services covered by this asset management plan is $4,345,284 per annum. The life cycle sustainability index is 0.53 A target ratio of 1.0 is desired.

Lifecycle Cost		
Renewal	Asset Consumption	$6,873,284.00
Maintenance (Current)	Year 1	$2,334,400.00
		$9,207,684.00
Lifecycle Expenditure		
Maintenance	Year 1	$2,334,400.00
Renewal	Year 1	$2,528,000.00
		$4,862,400.00
Lifecycle Ratio		
Planned	$4,862,400.00	
Required	$9,207,684.00	
Gap & Ratio	$4,345,284.00	0.53

This ratio is likely to improve as data in the asset register is continued to be improved, particularly in relation to reassessing the useful life of these assets.

It is also common that the separation in actual expenditures between operations, maintenance and renewal is not highly developed, and this also will have a significant impact on improving the sustainability ratios.

It is important to continue to reassess this situation as the current ratios indicate that the current level of service being provided cannot be maintained in the longer term.

Medium Term – 10 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 20 year period for input into a 10 year financial plan and funding plan to provide the service in a sustainable manner.

This estimated expenditure requirement may be compared to existing or planned expenditures in the 20 year period to identify any gap, or with the available funding determined in the 10 year long term financial plan. In a core asset management plan, a gap is generally due to the increasing need for asset renewal.

Fig 8 shows the projected asset renewals in the 20 year planning period from the asset register. The projected asset renewals are compared to planned renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period as shown in Fig 8. Table 6.1.1 shows the funding gap for the 20 year planning period.

Fig 8. Projected and Planned Renewals and Current Renewal Expenditure

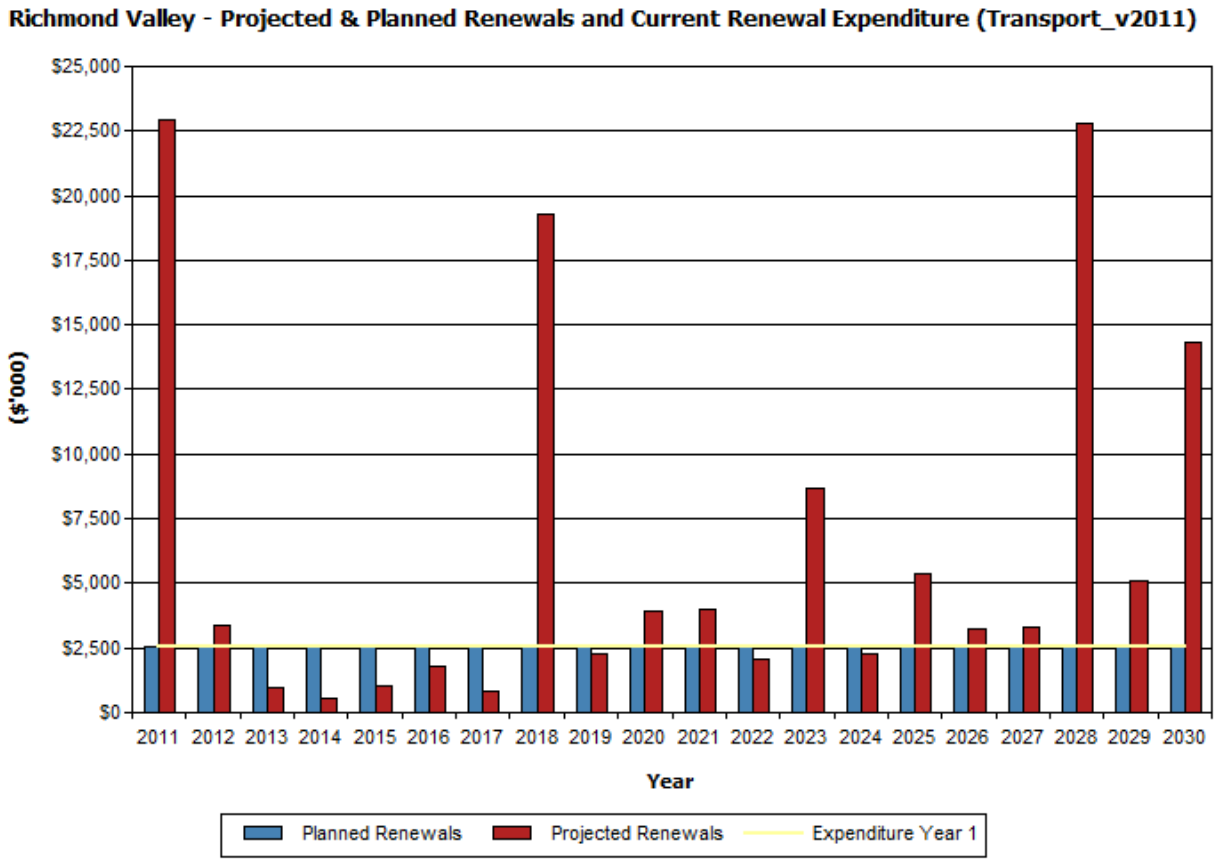


Table 6.1.1 shows the gap between projected and planned renewals.

Table 6.1.1 Projected and Planned Renewals and Expenditure Gap

Year End Jun-30	Total Operations Expenditure ($'000)	Total Maintenance Expenditure ($'000)	Projected Capital Renewal Expenditure ($'000)	Planned Capital Upgrade/New Expenditure ($'000)	Planned Disposals ($'000)	Planned Capital Renewal Expenditure ($'000)	Shortfall in Renewal Expenditure (Projected - Planned) ($'000)	Cumulative Renewal Funding Shortfall ($'000)
2011	$1,239.21	$2,334.40	$22,921.51	$48.00	$0.00	$2,528.00	$20,393.51	$20,393.51
2012	$1,239.42	$2,334.79	$3,395.37	$48.00	$0.00	$2,528.00	$867.37	$21,260.87
2013	$1,239.63	$2,335.19	$967.34	$48.00	$0.00	$2,528.00	-$1,560.66	$19,700.21
2014	$1,239.84	$2,335.59	$583.55	$48.00	$0.00	$2,528.00	-$1,944.45	$17,755.76
2015	$1,240.05	$2,335.98	$1,026.48	$48.00	$0.00	$2,528.00	-$1,501.52	$16,254.24
2016	$1,240.26	$2,336.38	$1,761.99	$48.00	$0.00	$2,528.00	-$766.01	$15,488.22
2017	$1,240.47	$2,336.78	$796.37	$48.00	$0.00	$2,528.00	-$1,731.63	$13,756.60
2018	$1,240.69	$2,337.17	$19,312.41	$48.00	$0.00	$2,528.00	$16,784.41	$30,541.01
2019	$1,240.90	$2,337.57	$2,292.91	$48.00	$0.00	$2,528.00	-$235.09	$30,305.93
2020	$1,241.11	$2,337.97	$3,934.63	$48.00	$0.00	$2,528.00	$1,406.63	$31,712.56
2021	$1,241.32	$2,338.36	$3,999.76	$48.00	$0.00	$2,528.00	$1,471.76	$33,184.32
2022	$1,241.53	$2,338.76	$2,098.54	$48.00	$0.00	$2,528.00	-$429.46	$32,754.86
2023	$1,241.74	$2,339.16	$8,650.98	$48.00	$0.00	$2,528.00	$6,122.98	$38,877.84
2024	$1,241.95	$2,339.56	$2,249.57	$48.00	$0.00	$2,528.00	-$278.43	$38,599.41
2025	$1,242.16	$2,339.95	$5,338.53	$48.00	$0.00	$2,528.00	$2,810.53	$41,409.94
2026	$1,242.37	$2,340.35	$3,223.37	$48.00	$0.00	$2,528.00	$695.37	$42,105.31
2027	$1,242.58	$2,340.75	$3,318.21	$48.00	$0.00	$2,528.00	$790.21	$42,895.53
2028	$1,242.79	$2,341.14	$22,762.52	$48.00	$0.00	$2,528.00	$20,234.52	$63,130.05
2029	$1,243.00	$2,341.54	$5,088.77	$48.00	$0.00	$2,528.00	$2,560.77	$65,690.82
2030	$1,243.21	$2,341.94	$14,299.38	$48.00	$0.00	$2,528.00	$11,771.38	$77,462.20

Providing services in a sustainable manner will require matching of projected asset renewals to meet agreed service levels with planned capital works programs and available revenue.

The gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate a funding gap.

Council will manage the 'gap' by developing this asset management plan to provide guidance on future service levels and resources required to provide these services.

In particular improvement of the asset register and reassessment of useful lives, remaining lives and the relationship to the road hierarchy will greatly improve the confidence level in the calculated results.

Another area which is likely to impact on the sustainability assessment is by developing greater knowledge of the current expenditure that relates to renewal or maintenance. It is likely that significant expenditure which extends the life of the assets, (renewal) is current identified as maintenance. This is very common across the industry and tends to make the sustainability ratios lower than actual. Improvement in the detail of expenditure reporting will important to the future updates of this Transport Asset Management Plan

Council's long term financial plan covers the first 10 years of the 20 year planning period. The total maintenance and capital renewal expenditure required over the 10 years is $80,354,380

This is an average annual expenditure of $8,035,438. Estimated maintenance and capital renewal expenditure in year 1 is $4,862,400. The 10 year sustainability index is 0.61

Required Funding		
10 Yr	Total ($000's)	Annual ($)
Maintenance required	$23,361.82	$2,336,182.00
Renewal required	$56,992.56	$5,699,256.00
	$80,354.38	$8,035,438.00
Planned Expenditure		
10 Yr		
Maintenance (Current)	Year 1	$2,334,400.00
Renewal (Current)	Year 1	$2,528,000.00
		$4,862,400.00
Sustainability Ratio		
Planned	$4,862,400.00	
Required	$8,035,438.00	
Gap & Ratio	$3,173,038.00	0.61

6.2 Funding Strategy

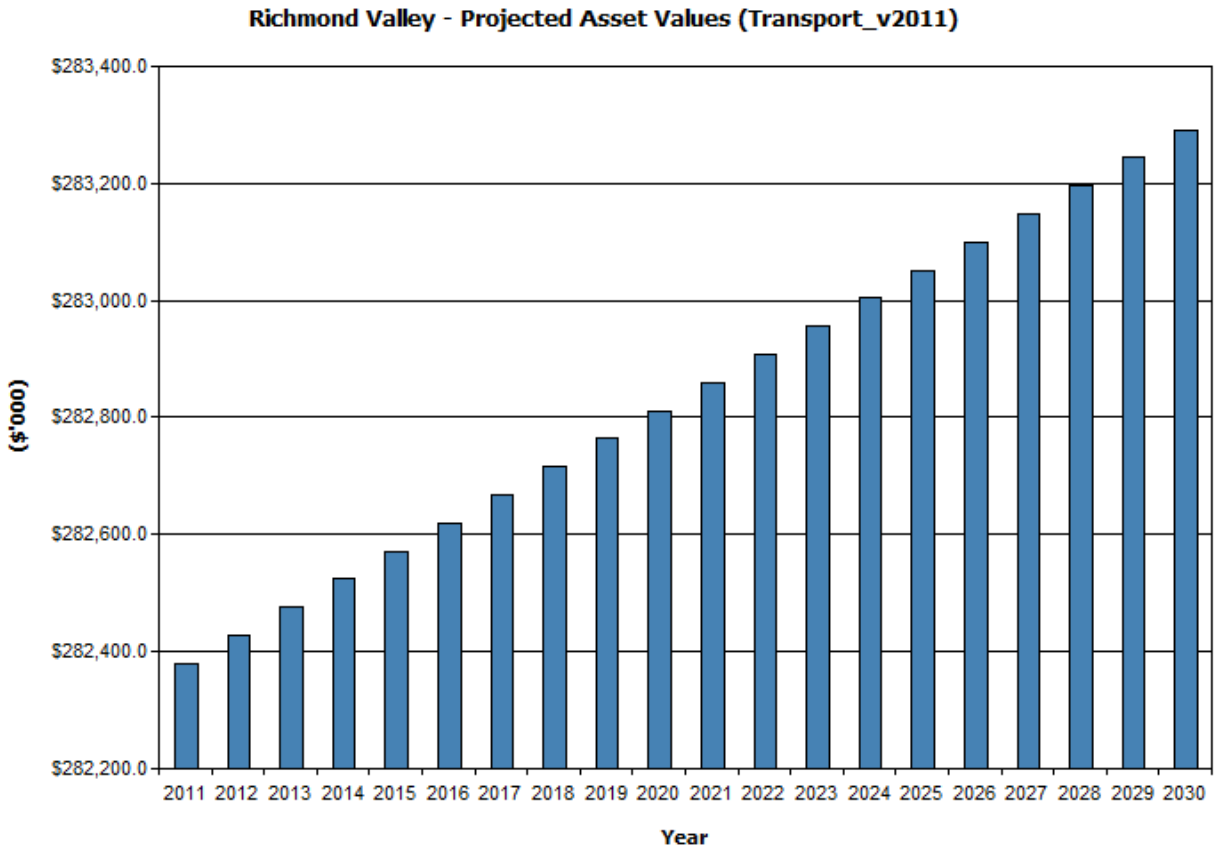
Projected expenditure identified in Section 6.1 is to be funded from Council's operating and capital budgets. The funding strategy should be developed in conjunction with the development of Council's next 10 year long term financial plan and should funding levels not be achieved the consequences on service levels and risk be fully assessed and communicated through revision of this asset management plan.

Achieving the financial strategy will require development of the asset register data to a higher level of confidence, with full review of service levels, useful lives and current expenditures.

6.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to Council. Fig 9 shows the projected replacement cost asset values over the planning period in current 2010 dollar values.

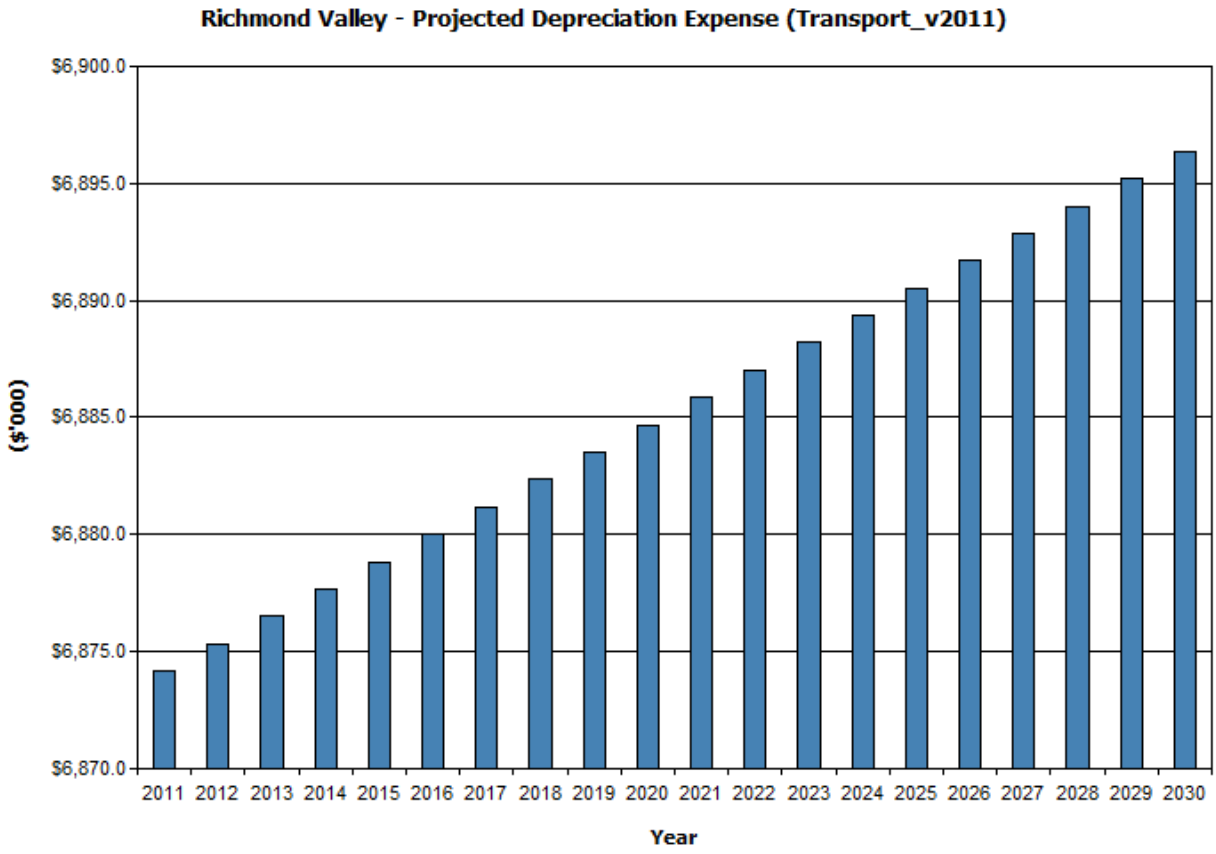
Fig 9. Projected Asset Values



The asset value increase is attributable to the new assets being constructed.

Depreciation expense values are forecast in line with asset values as shown in Fig 10.

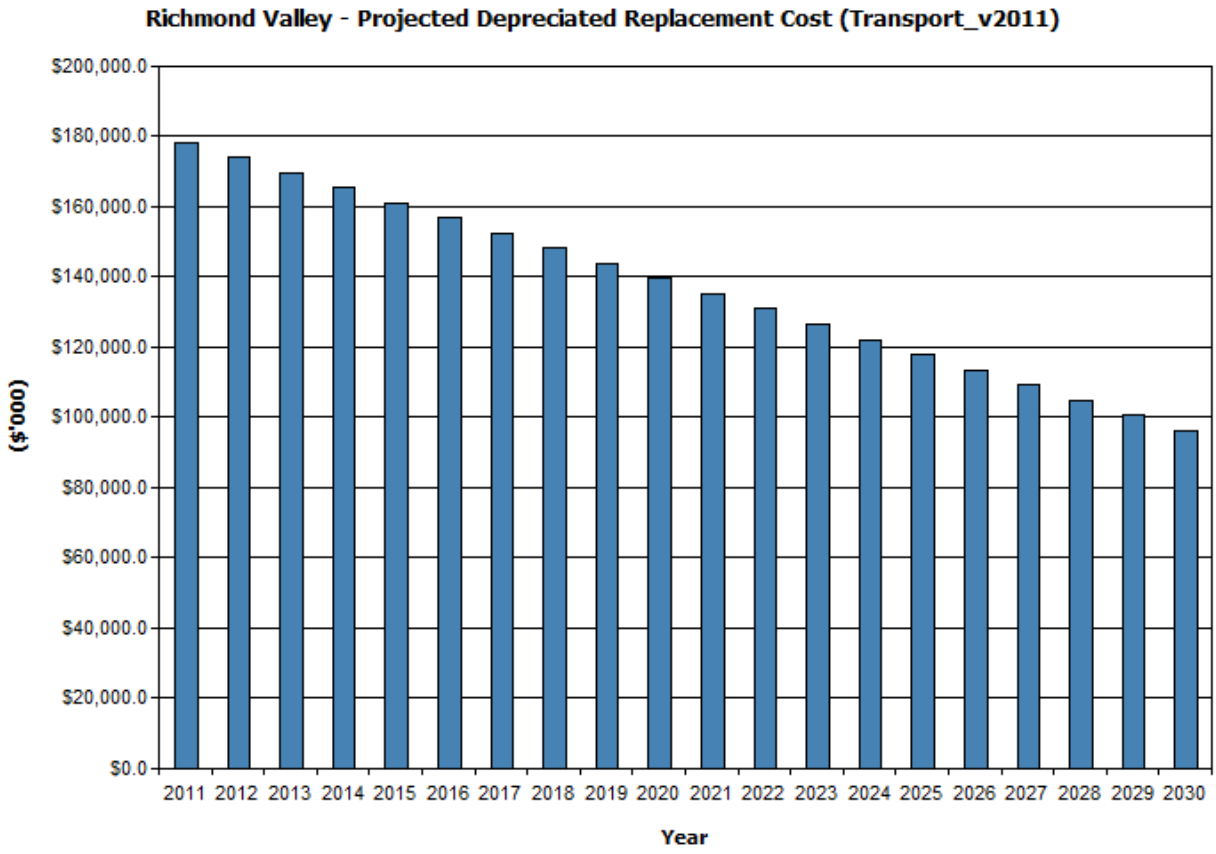
Fig 10. Projected Depreciation Expense



The depreciation expense is increasing due to the new assets being created.

The depreciated replacement cost (current replacement cost less accumulated depreciation) will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Forecast of the assets' depreciated replacement cost is shown in Fig 11.

Fig 11. Projected Depreciated Replacement Cost



Depreciated replacement cost shows the current value of the assets. A decline in value indicates that consumption (or depreciation) is occurring at a greater rate than they are being renewed. Fig 11 indicates that the value of transport assets owned by Richmond Valley Council is in some decline. It is likely that the review of useful lives and development of more detailed asset hierarchies will reduce this falling depreciated replacement cost.

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 are:

- Use of existing inventory data
- Use of existing valuations, useful lives and remaining lives determined from the condition rating
- Use of current expenditure information as best as this can be determined

Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions.

- Full Implementation a single Asset Register (currently in progress)

- Maintaining the Asset Register
- Reviewing useful lives for assets in conjunction with developing suitable hierarchies within the asset categories.
- Higher detail and definition in relation to the current expenditures by type eg operating, maintenance, renewal, upgrade/new

7. ASSET MANAGEMENT PRACTICES

7.1 Accounting/Financial Systems

7.1.1 Summary

Fujitsu 2000Plus is Council's accounting and financial management system. Council uses the New South Wales version of Fujitsu 2000Plus supplied from Fujitsu's offices in Orange, New South Wales.

All construction and maintenance costs are recorded in this system. Capital costs are generally costed to a series of account numbers that can be related to a particular asset construction project.

Currently NSW is phasing in compliance with AASB116. To successfully complete this it will be important that both financial and technical systems reporting are based on the same data for infrastructure assets.

7.1.2 Accountabilities and Responsibilities for Financial System

The financial systems are primarily managed by Council's financial section. It is the responsibility of all persons with expenditure roles to ensure that costing is allocated to the correct account numbers so that financial reporting will be accurate and reliable.

7.1.3 Accounting Standards, Regulations and Guidelines

In accounting for Richmond Valley Council's assets, the following statutory requirements shall be adhered to:

- NSW Local Government Act 1993
- NSW Code of Accounting Practice and Financial Reporting (updated annually)
- Australian Accounting Standards, UIG Consensus Views and other prescribed requirements

7.2 Asset Management Systems

Richmond Valley Council is responsible for the management of a wide range of physical assets. Its asset base includes assets which are typical to local government such as roads, drains, reserves and buildings as well as assets which are typical to water authorities such as treatment plants, water supply & sewer mains, pump stations and telemetry.

These assets are used to provide a range of services to the Richmond Valley community. The level of service delivered by these assets is largely determined by the manner in which they are maintained and managed.

In order to better manage its assets, Richmond Valley Council is in the stage of implementing an Integrated Asset Management System (AMS) namely AssetMaster by InfoMaster. AssetMaster will allow Council to collect and store asset data and to manage its infrastructure maintenance and replacement programs. The system will also allow Council to monitor the effectiveness of its adopted asset management strategies and adjust them accordingly.

In the current environment AssetMaster is not linked with Council's financial system Fujitsu. This integration is planned for a later date when Council decides on the direction it will take with regard to the future of Fujitsu.

Richmond Valley Council's objectives in the implementation and consequent management of AssetMaster are as follows:

- To have a central repository for all asset data.
- To undertake life cycle management of all Council asset categories.
- To facilitate an asset management culture.
- To reduce the overall costs and risks associated with Council assets.
- To own a system that is flexible enough to accommodate the variations in the management of the various asset categories.
- To provide the ability to add advanced asset management functionality as the Council matures with respect to asset management.
- To have an integrated system that will support the concept of once only data entry and be easily interfaced with other corporate applications.

Changes to the asset management system resulting from this AMP may include modification of asset categories or sub-categories to assist in maintenance management systems, changing to a work order system for job planning and control, improving the quality of specific data, improving software systems and links to other systems (e.g. GIS) and adopting a more frequent reconciliation cycle between the financial and technical asset registers.

7.3 Information Flow Requirements and Processes

The key information flows *into* this asset management plan are:

- The asset register data on size, age, value, remaining life of the network;
- The unit rates for categories of work/material;
- The adopted service levels;
- Projections of various factors affecting future demand for services;
- Correlations between maintenance and renewal, including decay models;
- Data on new assets acquired by council.

The key information flows *from* this asset management plan are:

- The assumed asset renewal profile and trends;
- The resulting budget, valuation and depreciation projections;
- The useful life analysis.

These will impact the Long Term Financial Plan, Strategic Business Plan, annual budget and departmental business plans and budgets.

7.4 Standards and Guidelines

At present there is no adopted Asset Management Policy or Procedures.

8. PLAN IMPROVEMENT AND MONITORING

8.1 Performance Measures

The effectiveness of the asset management plan can be measured in by the degree to which the required cash flows identified in this asset management plan are incorporated into council's long term financial plan and strategic management plan.

8.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 8.2.

Table 8.2 Improvement Plan

Task No	Task	Responsibility	Timeline
1	Continue to standardise a single Asset Register for Infrastructure	Corporate (Technical & Financial)	December 2014
2	Reanalyse the gap required to fund transport assets at the desired service levels, and detail the consequences on service level and risk should additional funding not be provided. This further analysis will enable the relative costs and priorities to be balanced with the funding provided in Council's Long Term Financial Plan, and for consultation with the community	Corporate (Technical & Financial)	December 2014
3	Review useful Lives and the depreciation rate used for transport assets	Corporate (Technical & Financial)	December 2014
4	Review methodology for determining remaining life, with detail assessment for assets requiring renewal in the medium term (10-20 years)	Corporate (Technical & Financial)	December 2014
5	Continue to standardise expenditure reporting to be consistent with infrastructure categories and report in terms of expenditure type (Operations, Maintenance, Renewal, Upgrade or Expansion). A high confidence level on the expenditure breakdown will be essential for improving the next asset management plans.	Corporate (Technical & Financial)	December 2014
6	Determine procedures for maintaining the Asset Register	Corporate (Technical & Financial)	December 2014

8.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any changes in service levels and/or resources available to provide those services as a result of the budget decision process.

The Plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

REFERENCES

Richmond Valley Council Management Plan

DVC, 2006, 'Asset Investment Guidelines', 'Glossary', Department for Victorian Communities, Local Government Victoria, Melbourne, http://www.dvc.vic.gov.au/web20/dvclgv.nsf/allDocs/RWP1C79EC4A7225CD2FCA257170003259F6?OpenDocument

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au

Richmond Valley Council Summary of Operations and Service Levels, 2009/2012 by Michael Pontefract.

APPENDIX A

TECHNICAL LEVEL OF SERVICE

TRANSPORT PLAN

Budget Area	Expenditure Category	Current Expenditure	Activities		Measure	Current Funded LOS (Scenario 1)	Optimal LOS (Scenario 2)
						Where no specifically indicated the operations, maintenance strategies are reactive	*Activities need to be planned in accordance with Asset Management Plans to manage renewal cycle appropriately.*
Bridge	Maintenance	$114,565.19			Frequency		
	Operation	$0.00			Frequency		
	Renewal	$0.00			Frequency		
Bridge Total		**$114,565.19**			Frequency		
Bus Shelter	Maintenance	$2,150.36			Frequency		
	Operation	$18,884.15			Frequency		
	Renewal	$0.00			Frequency		
Bus Shelter Total		**$21,034.51**			Frequency		
Footpaths & Cycleways	Maintenance	$21,688.97			Frequency		
	Operation	$49,978.02			Frequency		
	Renewal	$90,849.58			Frequency		
Footpaths & Cycleways Total		**$162,516.57**			Frequency		
Guard Rail	Maintenance	$4,786.00			Frequency		
	Operation	$0.00			Frequency		
	Renewal	$22,797.37			Frequency		
Guard Rail Total		**$27,583.37**			Frequency		
Guard Terminal	Maintenance	$1,814.56			Frequency		
	Operation	$0.00			Frequency		
	Renewal	$0.00			Frequency		
Guard Terminal Total		**$1,814.56**			Frequency		
Minor Culverts	Maintenance	$39,577.05			Frequency		
	Operation	$0.00			Frequency		
	Renewal	$57,477.19			Frequency		
Minor Culverts Total		**$97,054.24**			Frequency		
Road Seal	Maintenance	$76,715.19	***New Seal***	Maintenance	Frequency		
				Operation	Frequency		
				Renewal	Frequency		
			Reseal	Maintenance	Frequency		
				Operation	Frequency		
				Renewal	Frequency		
	Operation	$0.00			Frequency		
	Renewal	$1,453,572.73			Frequency	$1,330,000 current budget. This allows for the following reseal frequencies: Regional Roads - 20 years Sealed Roads - 15 years Urban Roads - between 10 & 20 Years	$2,060,000 required for frequencies in accordance with good engineering asset renewal practice: Regional Roads - 10 years Sealed Roads - 10 years Urban Roads - 12 years
Road Seal Total		**$1,530,287.92**			Frequency		

Reseal Total					Frequency		
Roadside furniture	Maintenance	$24,783.13			Frequency		
	Operation	$0.00			Frequency		
	Renewal	$6,127.18			Frequency		
Roadside furniture Total		**$30,910.31**			Frequency		
Sealed Pavement	Maintenance	$1,206,772.24	**Pavement Patching**		Frequency		
			Cold mix Patching		Frequency		
			Urban Roads Casino		Frequency	1 day per week	
			Urban Roads Evans Head		Frequency	1 day per fortnight	
			Urban Roads Woodburn		Frequency	1 day per month	
			Urban Roads Coraki		Frequency	1 day per month	
			Urban Roads Broadwater		Frequency	Half day per month	
			Rural Roads - All areas outside townships		Frequency	2 days per week	
			Emulsion Patching (Paveliner)		Frequency		
			Regional Roads - MR145 - Casino to Coraki		Frequency	1 day per month	
			Regional Roads - MR145 - Coraki to Woodburn		Frequency	1 day per month	
			Regional Roads - MR153 - Woodburn to Evans Head		Frequency	1 day per month	
			Regional Roads - MR544 - Lismore to Kyogle Road		Frequency	1 day per month	
			Rural Roads - All areas outside townships		Frequency	1 day per week	
			Street Cleaning	Maintenance	Frequency		
			Hand sweeping - Casino CBD		Frequency	2hrs per day Mon-Sat	
			Hand sweeping - Evans Head - CBD		Frequency	2hrs per day 3 days per week	
			Hand sweeping - Woodburn CBD		Frequency	2hrs per day 2 days per week	
			Hand sweeping - Coraki CBD		Frequency	2hrs per day 1 day per week	
			Mechanical Sweeping - Casino CBD		Frequency	3.5hrs per weekday, 2hrs Sat, 5 days per week	
			Mechanical Sweeping - Evans Head CBD		Frequency	1.5hrs 3days per week	
			Mechanical Sweeping - Woodburn CBD		Frequency	1.25hrs, Thursdays	
			Mechanical Sweeping - Coraki CBD		Frequency	0.5hrs, Thursdays	
			Mechanical Sweeping - Broadwater Pacific Hwy		Frequency	1hr, Thursdays	
			Mechanical Sweeping - Casino - Other areas		Frequency	4 hours per week	
			Mechanical Sweeping - Evans Head - Other areas		Frequency	1hr most Thursdays	
				Operation	Frequency		
				Renewal	Frequency		
			Street Cleaning (bin collection)	Maintenance	Frequency		
			Casino - CBD & Parks		Frequency	Monday, Wednesday, Friday	
			Casino - most other bins		Frequency	Monday & Friday	
			Evans Head - most other bins		Frequency	Monday & Friday	
			Woodburn - most other bins		Frequency	Monday & Friday	
			Woodburn - Riverside Park		Frequency	Monday, Wednesday, Friday	
			Coraki - CBD & Parks		Frequency	Monday & Thursday	
			Coraki - most other bins		Frequency	Monday	
			Broadwater		Frequency	Monday & Thursday	
				Operation	Frequency		
				Renewal	Frequency		
			Mowing		Frequency		
			Urban Mowing - Casino		Frequency	17 times per year	
			Low use parks, Fields & Recreation Areas - Casino			17 times per year	
			High Use Parks - Casino			20 times per year	
			Sporting Fields - Casino			24 times per year	
			Urban Mowing Evans Head		Frequency	17 times per year	
			Low use parks, Fields & Recreation Areas - Evans			17 times per year	

			Head				
			High Use Parks - Evans Head			20 times per year	
			Sporting Fields - Evans Head			24 times per year	
			Memorial Park - Evans Head			26 times per year	
			Urban Mowing Woodburn		Frequency	17 times per year	
			High Use recreation areas - Woodburn			20 times per year	
			Sporting fields - Woodburn			24 times per year	
			Urban Mowing Coraki		Frequency	17 times per year	
			Low use recreation areas - Coraki			17 times per year	
			High use recreation areas - Coraki			20 times per year	
			Sporting fields - Coraki			20 times per year	
			Urban Mowing Broadwater		Frequency	17 times per year	
			Memorial Park - Broadwater			26 times per year	
				Operation	Frequency		
				Renewal	Frequency		
			Slashing	Maintenance	Frequency		
			Rural Sealed roads - 3.0m wide		Frequency	once every 9 weeks starts September finishes May	
			Rural Unsealed roads		Frequency	Nil	
				Operation	Frequency		
				Renewal	Frequency		
	Operation	$794,093.49			Frequency		
	Renewal	$766,205.49			Frequency		
Sealed Pavement Total		**$2,767,071.22**			Frequency		
					Frequency		
Signs	Maintenance	$39,904.13			Frequency		
	Operation				Frequency		
	Renewal	$40,554.06			Frequency		
Signs Total		**$80,458.19**			Frequency		
Surface Drainage	Maintenance	$576.71	Routine Drainage	Maintenance	Frequency		
				Operation	Frequency		
				Renewal	Frequency		
			Routine Drainage Total		Frequency		
			Kerb & Guttering	Maintenance	Frequency		
				Operation	Frequency		
				Renewal	Frequency		
			Kerb & Guttering Total		Frequency		
					Frequency		
	Operation				Frequency		
	Renewal	$11,219.01			Frequency		
Surface Drainage Total		**$11,795.72**			Frequency		
Traffic Management	Maintenance	$44,189.45			Frequency		
	Operation	$0.00			Frequency		
	Renewal	$0.00			Frequency		
	Expansion	$48,004.35			Frequency		
Traffic Management Total		**$92,193.80**			Frequency		
Unsealed Pavement	Maintenance	$708,183.38	Grading		Frequency		
			Rural Unsealed - Class "A" Road (100mm of gravel)		Frequency	Twice a year	
			Rural Unsealed - Class "B" Road (75mm of gravel)		Frequency	Once a year	
			Rural Unsealed - Class "C" Road (50mm of gravel)		Frequency	Once every 2 years	
					Frequency		

	Operation	$302,583.52			Frequency		
	Renewal	$175,000.00			Frequency		
Unsealed Pavement Total		**$1,185,766.90**			Frequency		

Grand Total **$6,123,052.50**

APPENDIX B

TECHNICAL LEVEL OF SERVICE

RESEAL FREQUENCIES

Current Funded Level of Service			Optimal Level of Service	
Frequency	**2010/2011**	**Frequency**	**2010/2011**	**Frequency**
10	$108,000.00	20	$229,500.00	10
	$141,300.00		$80,325.00	
15	$605,000.00	15	$938,925.00	10
	$150,000.00		$328,644.00	
10	$125,000.00	20	$212,000.00	12
	$14,200.00		$74,200.00	
10	$30,000.00	15	$40,000.00	12
	$6,500.00		$14,000.00	
10	$15,000.00	10	$15,000.00	12
	$2,600.00		$5,250.00	
10	$20,000.00	10	$18,000.00	12
	$4,200.00		$6,300.00	
5	$100,000.00	10	$75,000.00	12
	$8,389.00		$26,250.00	

TOTAL $1,330,189.00 **TOTAL $2,063,394.00**