

Asset Management Plan

Footpaths



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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 discretionary 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, e.g. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. 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 discretionary 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, e.g. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. 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, e.g. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no 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 (e.g. 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 if 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, e.g. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operating expenditure

Recurrent expenditure, which is continuously required excluding maintenance and depreciation, e.g. 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, e.g. public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

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

Section or segment

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

Service potential

The 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

Randwick City Council has a significant portfolio of 724 km of footpath assets under its care and control.

The aim of the Randwick City Council Footpath Asset Management Plan is to provide a framework to detail and examine existing management practices of footpath assets, and to form the basis of an improvement program to progressively meet identified deficiencies.

Additionally, as a member of the State-wide Mutual Liability Scheme, Council is subject to regular audits to ascertain that appropriate activity is in place to reduce liability exposure levels. Council must be able to effectively demonstrate a proactive and planned approach towards the maintenance, construction and renewal of its footpath assets.

What does it Cost?

There are two key indicators of cost to provide the Footpath service.

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

The life cycle cost to provide the Footpath asset infrastructure service is estimated at \$2,220,804 per annum. Council's planned life cycle expenditure for year 1 of the asset management plan is \$2,197,330 which gives a life cycle sustainability index of 0.90.

The total maintenance and capital renewal expenditure required to provide the Footpath asset infrastructure service in the next 10 years is estimated at \$19,440,120. This is an average of \$1,944,012 per annum.

Council's maintenance and capital renewal expenditure for year 1 of the asset management plan of \$3,167,840 giving a 10 year sustainability index of 1.01.

Plans for the Future

Council plans to operate and maintain the footpath network to achieve the following strategic objectives.

1. Ensure the footpath network is maintained at a safe and functional standard as set out in this asset management plan.

2. Manage the footpath network in a sustainable manner;
3. Develop an integrated footpath asset management system;
4. Minimise adverse impact of asset users, such as developers and utilities on the infrastructure assets; and
5. Maintain footpaths to a desired level of service.

Measuring our Performance

Quality

Footpath infrastructure 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 an appropriate Footpath network is maintained in partnership with other levels of government and stakeholders to provide procedures and standards adopted by Council towards the management of footpath assets as well as addressing Council's duty of care to the wider community in providing footpaths of serviceable condition.

Footpath asset attributes will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety. We need to ensure key functional objectives are met:

- Define and articulate how the infrastructure is and will be managed to achieve the organisations objectives;
- Provide a basis for customer consultation to determine the appropriate levels of service;
- Manage risk of failure;
- Achieve savings by optimising whole of life costs; and
- Support long term financial planning.

Safety

We inspect all footpaths 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 identifying:

- Footpath assets that are owned by council
- Condition and expected life of footpath assets
- Levels of services that customers want
- Establishing processes to priorities works and allocate funds
- Long-term funding requirements

2. INTRODUCTION

2.1 Background

Community expectation is for the provision of a safe and accessible network of pedestrian surfaces that provide opportunities for residents and visitors to make journeys on foot.

The footpath network is comprised of assets that are owned and managed by Randwick City Council as the Roads Authority. The footpath network is fully funded by Randwick City Council. Footpaths under the ownership and control of NSW Department of Housing, Sydney Ports Authority or any other privately owned land is not considered within this plan.

The management of Council's footpath assets requires the coordination of Council's technical and operational resources.

Council's design and asset management teams administer the asset management systems, determine strategic outcomes, develop operational works programs and produce designs, specifications and standards.

Council's operational teams undertake maintenance activities, some augmentation work and co-ordinate external Contractors to undertake renewal, replacement and other augmentation works.

The aim of the Randwick City Council Footpaths Asset Management Plan is to provide a framework for the sustainable management of footpath assets in line with community expectations and Council's Integrated Planning Framework.

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

- The Randwick City Plan
- Management Plan (4-Year Delivery Plan and Operational Plan)
- Asset Management Policy
- Asset Management Strategy
- Long Term Financial Plan
- Workforce Strategy
- Randwick City Council Community Consultation Principles and Consultation Planning Guide

This asset management plan covers the following infrastructure assets:

Table 2.1. Assets covered by this Plan

Asset category	Dimension	Replacement Value (\$M)
Concrete footpath	629941 m ²	\$62.99
Asphalt footpath	55983 m ²	\$6.72
Brick and Block footpath	35223 m ²	\$5.99
Brick and Concrete footpath	2796 m ²	\$0.48
TOTAL	724012 m²	\$76.19

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

Council Officers	Council officers play a major role in managing footpath assets to ensure that they provide a level of service that meets the needs of both residents and visitors to the area. Council officers implement the components identified in the footpaths asset management plan.
Council Representatives	This stakeholder group includes Councillors and the Mayor for the Council. They are primarily responsible to ensure that their decisions represent and reflect the needs of the wider community.
Residents	Residents are the core users of footpath assets. Their needs, wants and expectations are conveyed to Council, which should be reflected in the desired levels of service.
Visitors	Visitors are the second largest users of footpath assets, due to their likely frequency of use. Visitor's wants, needs and expectations drive the development in areas of the highest pedestrian usage and also commercial areas.
Insurers	Insurers have an interest to drive the implementation of systems, which allows Council to be in a better position to gain a better knowledge in the condition of our assets. This should be reflected in the number of claims made against each asset group.

2.2 Goals and Objectives of Asset Management

The provision of services by Council includes the provision of infrastructure assets. Council has acquired infrastructure assets by means which include 'purchase', by contract, construction by Council 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:

'A sense of community'

Council's mission is:

'Working together to enhance our environment, celebrate our heritage and to value and serve our diverse community'

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 IAMP
Council has a long term vision based on sustainability	Ensure financial strategies underpin Council's asset management policies and strategic vision	Prepare and review the Council's short and medium term financial plans for Risk Management, Domestic Waste Management, Plant & Equipment, Information Technology, S94 Plan, Asset Management Plans and cash reserves
Council is a leader in the delivery of social, financial, environmental, and operational activities	Ensure good governance and administrative support for the Council and organisation	Prepare and review the Council's short and medium term financial plans for Risk Management, Domestic Waste Management, Plant & Equipment, Information Technology, S94 Plan, Asset Management Plans and cash reserves
Our public assets are planned, managed and funded to meet the community expectations and defined levels of service	Conduct programmed asset maintenance management in accordance with adopted service levels	Maintain Road Reserves (road pavements, footpaths, kerbs and gutters, drainage)
	Continue to implement Strategic Asset Management plans to deliver intergenerational equity and meet the Council's obligations as the custodian of our community's assets.	Implement SAM to ensure the City's assets are managed and maintained to target service levels
		Implement the footpath construction and renewal program
The safety of our community is paramount and is acknowledged and supported through proactive policies, programs and strategies	Conduct minor reactive maintenance management in accordance with adopted service levels.	Respond in a timely manner to community requests for repairs to road reserves, open space and Council owned buildings.

2.3 Plan Framework

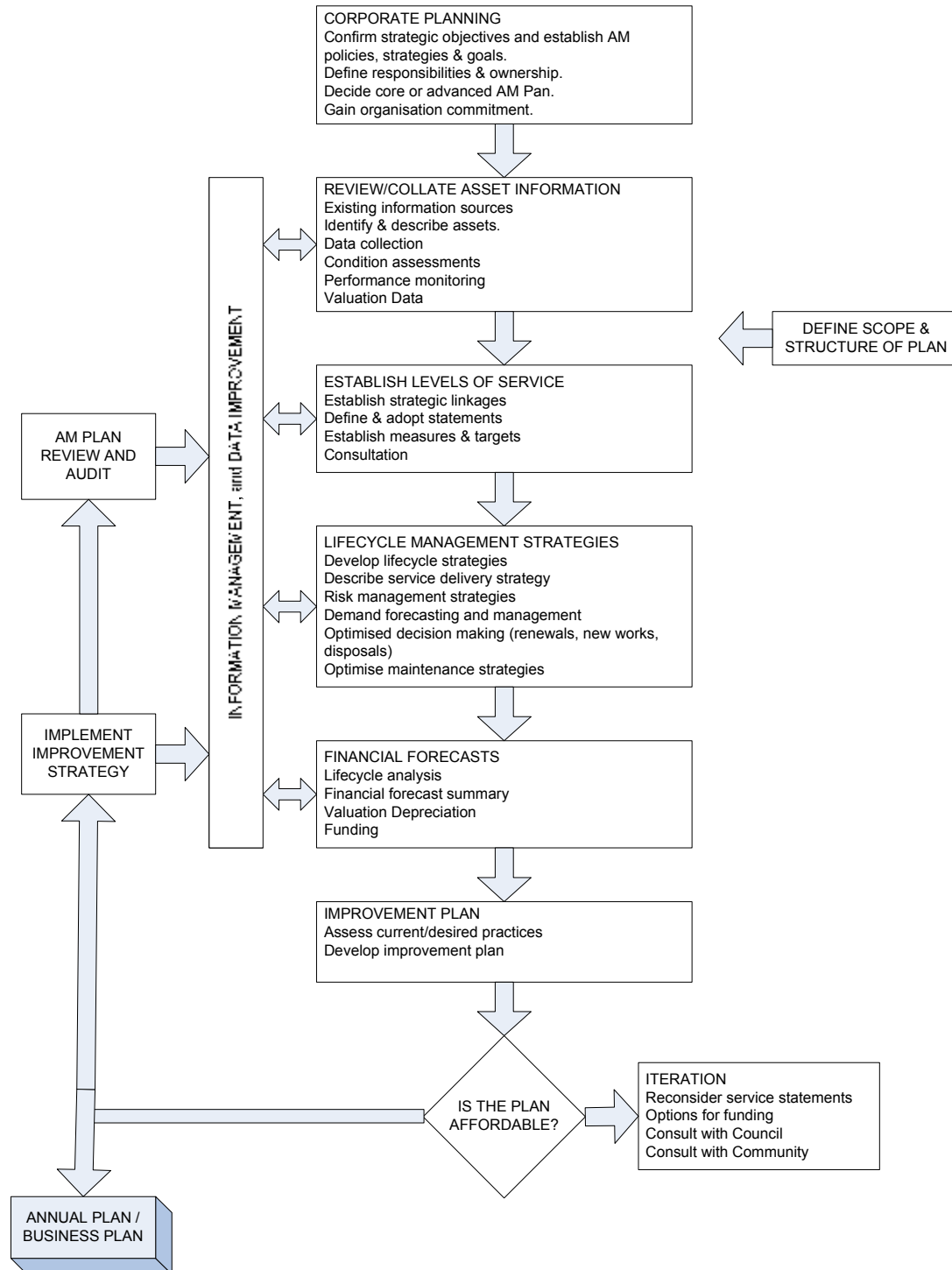
Key elements of the plan are

- 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

In 2012 Council commissioned a community satisfaction survey conducted by Micromex Research. The survey was administered by a computer aided telephone system to a sample of 1000 residents. The most recent customer satisfaction survey reported satisfaction levels for the following services;

Table 3.1. Community Satisfaction Survey Levels

Performance Measure	Satisfaction Level				
	Very Satisfied	Satisfied	Somewhat satisfied	Not Very satisfied	Not satisfied at all
Overall satisfaction with Council's performance		√			
Maintaining footpaths			√		
Maintaining local roads			√		
Coastal open spaces walkways		√			
Attractiveness of town centres			√		
Town Centre cleaning			√		
Street cleaning			√		
Council's response time to requests for service			√		

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

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	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Workplace Health and Safety Act 2011	<i>"Protecting workers and other persons against harm to their health, safety and welfare through the elimination or minimisation of risks arising from work..."</i>
Disability Discrimination Act 1992	<i>"To eliminate, as far as possible, discrimination against persons on the grounds of disability in the areas of: the provision of goods, facilities, services and land..."</i>
Australian Accounting Standard AASB116	Reporting on asset condition and consumption to Councillors, management and the community.
Civil Liability Act 2002 and Civil Liability Amendment (Personal Responsibility) Act 2002	Protects the Council from civil action by requiring the courts to take into account the financial resources, the general responsibilities of the authority and the compliance with general practices and applicable standards.

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

Quality
Quantity
Availability
Safety

Technical measures may relate to

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

As a member of the State-wide Mutual Liability Scheme, Council is subject to regular audits to ascertain that appropriate activity is in place to reduce liability exposures. Council must be able to effectively demonstrate a proactive and planned approach towards the maintenance, construction and renewal of its footpath assets.

In 2002 Council resolved that a 5-year footpath construction programme was to commence beginning 2003/04 for the construction of footpath along one side of all streets in South and Central Wards. As part of this resolution, approximately 55 kilometres of footpath have been constructed to date across streets in Council's South and Central wards. The 5-year construction initiative increased the number of footpath assets for Council to maintain.

Since the completion of this 5 year construction programme in 2009, council has constructed or renewed 15 kilometres of footpath throughout the LGA. This ongoing program focuses on the sustainable renewal

of existing footpath assets and the provision of new footpath assets on a priority basis. This ongoing program delivers an average of approximately 5 kilometres of new or renewed footpath assets per year.

It is essential that Council identify the nature and condition of its extensive footpath assets. It is anticipated that the use of these tools an ongoing program of data collection and refinement will allow the Assets team to move towards a proactive approach in the management of footpath assets, addressing the needs of the community and reducing Council's overall exposure to public liability. Inevitably costs will be required to fund these developments and allow for continual upkeep of the system. It is desirable that Council be able to maintain a certain level of serviceability for all footpaths and be able to identify footpaths that fall short of this standard so that they can be repaired or reconstructed to meet the required level of service.

The following Levels of Service are subject to alterations based on Council's ability to meet the targeted performance and funding availability.

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

Table 3.3. Current Service Levels

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
COMMUNITY LEVELS OF SERVICE				
Quality	Installation of new footpaths on streets with no footpath	Ongoing construction of new footpaths	Continued sustainable provision of new footpath assets on a priority basis.	15km of new footpath constructed between 2009 and 2012
	Ensure cleanliness of town centre footpaths	Town Centre footpaths are maintained to be free of litter and weeds	Footpaths are swept mechanically daily in town centres, with public place cleaning teams completing a general litter pick up every afternoon.	Footpaths are swept mechanically daily in town centres, with public place cleaning teams completing a general litter pick up every afternoon.
Function	Provide footpath network with pedestrian access that meets the community need	Customer satisfaction rating	Continued improvement in customer satisfaction.	38% customer satisfaction survey in 2012, up from 34% in 2010.
		Design and installation of footpaths and pram ramps to Council standards	Continue to improve accessibility and mobility opportunities to the community in line with budget allocations.	17 new pram ramps constructed in 2011-2012 3.95 km of footpaths constructed in 2011/2012
Safety	Provide safe footpath network for prams, wheelchairs and motorised carts that's is all weather accessible and free from hazards	Reduce insurance claims due to footpath hazards	0 claims in 2012-2013.	36 claims in 2011-2012
		Respond to CRM's within SLA timeframe	15 days	43.5% completed within 15 day response time in 2011-2012
TECHNICAL LEVELS OF SERVICE				
Quality	Replace Asphalt footpaths with Concrete footpaths	Ongoing replacement of asphalt footpaths	Continued sustainable provision of asphalt to concrete footpath assets on a priority basis.	1.33 km of asphalt footpath replaced with concrete footpath in 2011-2012
Safety	<10mm trips	Repair trips >10mm	Add hazard to defects register to be grinded in January of each year	XX defects ground in 2011-2012
Condition	Identify condition of assets and create risk register	Routinely inspect Footpath Network	Inspect 20% of network annually	100% network inspected between 2008-2012
Design and Capacity	Ensure construction meets council standards.	Inspect all works post construction	Footpath program 100% inspected post completion	2011-2012 Footpath program 100% inspected

3.4 Desired Levels of Service

At present, indications of desired levels of service are obtained from various sources including the 2012 Customer Satisfaction survey, residents' feedback to Councillors and staff, service requests and correspondence. Council has yet to quantify desired levels of service. 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	128, 989 (As at 21 June 2012, ABS estimated resident population)	Randwick City Council's population has experienced 7.6% growth since last 2006 census.	An increase in population will require an increase in community and infrastructure services.
Demographics	<p>In the ABS 2006 census, Sydney's average compared with Randwick City Council had:</p> <ul style="list-style-type: none"> • A higher proportion of young adults, • A smaller percentage of young children, • A high percentage of renters • A high percentage of people aged 15-24. <p>The area also has an ageing population consistent with nationwide trends.</p> <p>Randwick is a multicultural area with a significant number of non-English speaking communities.</p>	<p>Number of people per household is expected to decline.</p> <p>Percentage of people aged 65 is expected to increase.</p> <p>Number of people below the age of 15 is expected to remain the same.</p>	<p>Greater need for aged care facilities and disability access. Increase in population will require improvements to public transport infrastructure.</p>

Population projection tables and Randwick LGA 2011 Census Quickstat statistics are shown in Appendix C.

4.2 Changes in Technology

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

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

Technology Change	Effect on Service Delivery
Updated Plant & Equipment	Improved service delivery within a more efficient time frame
Improved community access to Council through technology	Information technology developments including websites, social media and the like improve the communities' access to Council. This is anticipated as Making it easier for the community to communicate expectations with regards to delivery of services.
Improved technology for recording and assessing assets.	Data integrity and ability to link data to GIS for improved visualisation and modelling

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
Council resolution to provide a footpath on both sides of every street in the Randwick Local Government Area	Work has been undertaken to ensure every street has at least 1 footpath on 1 side of the street. This program was completed in the 2009-10 financial year. A second footpath in streets with only 1 footpath will be prioritised based in pedestrian volumes. New footpaths will cater for 20-35% of the capital works program
Major tourist attractions, for example Coogee Beach, will require the commercial growth of town centres to cater to the local and visitor population	Improved town centre streetscapes will assist local businesses and the local 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.

Table 4.4. New Assets from Growth

Development / Council	Location	Dimensions
Development	1406-1408 Anzac Parade	Footpath Length – 5000m Footpath Area – 6500m ²
Development	Endeavour House, 88-102 Moverly Road, South Coogee – Subdivision of land	Footpath Length – 3000m Footpath Area – 3900m ²

Acquiring these new assets will commit council to fund ongoing operations and maintenance 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 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

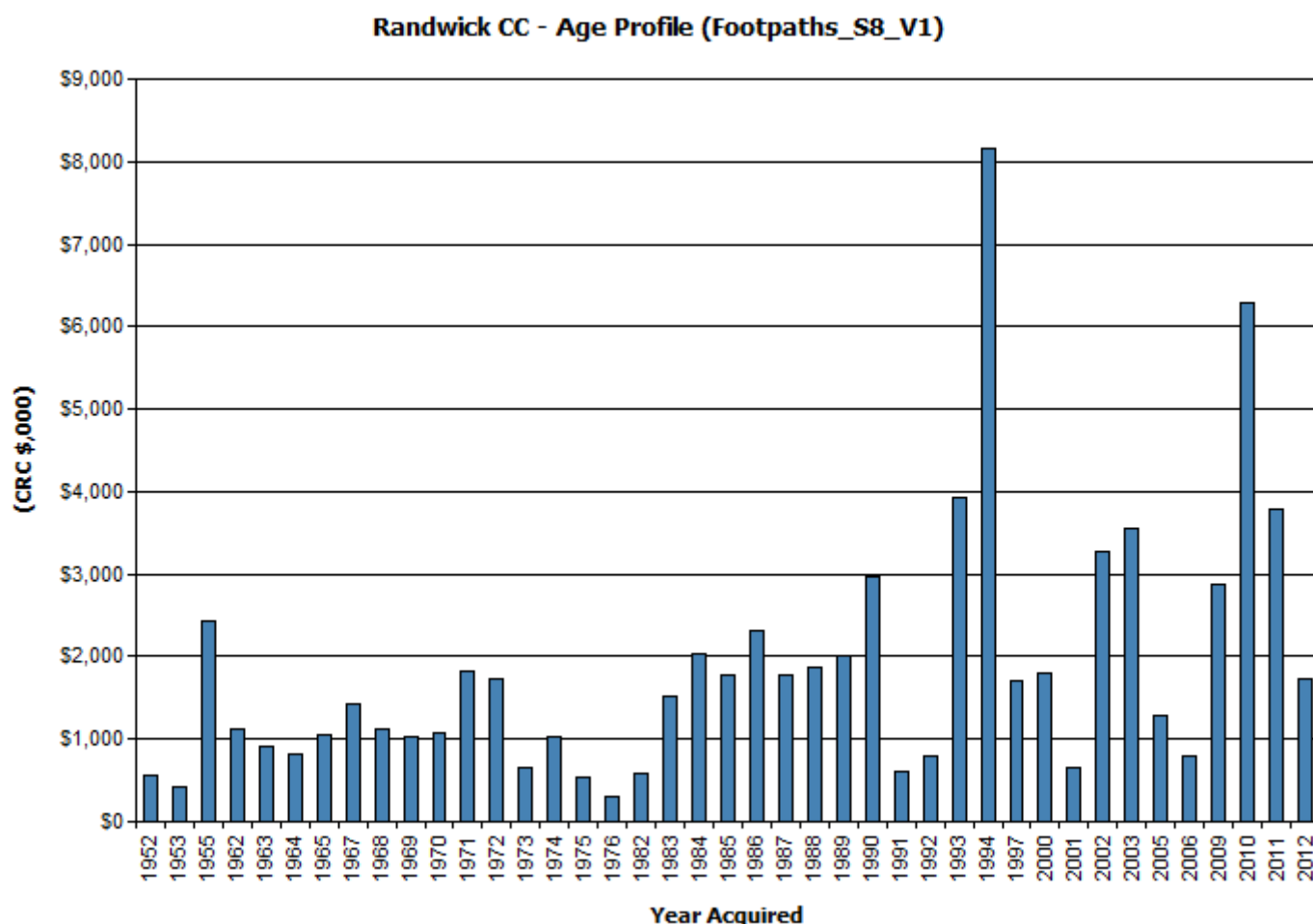
5.1.1 Physical parameters

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

Footpaths 724012 m²

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

Fig 2. Asset Age Profile



The asset age profile shown is not indicative of the actual age of the assets. The year of construction/acquisition for footpath assets is not known to any degree of accuracy for most roads. The year of acquisition was therefore determined by considering the anticipated asset life and current condition on the lifecycle deterioration curve for that asset.

For example if an asset was assessed to be a condition 7 out of 10, based on a straight line depreciation graph it is assumed that 70% of the life of the asset has been consumed. If concrete footpath has an assumed useful life of 80 years then 56 years of its useful life has been consumed. To determine 'Year of Acquisition' the asset consumption age of 56 is subtracted from the current year, 2012, giving a year of acquisition of 1956.

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.

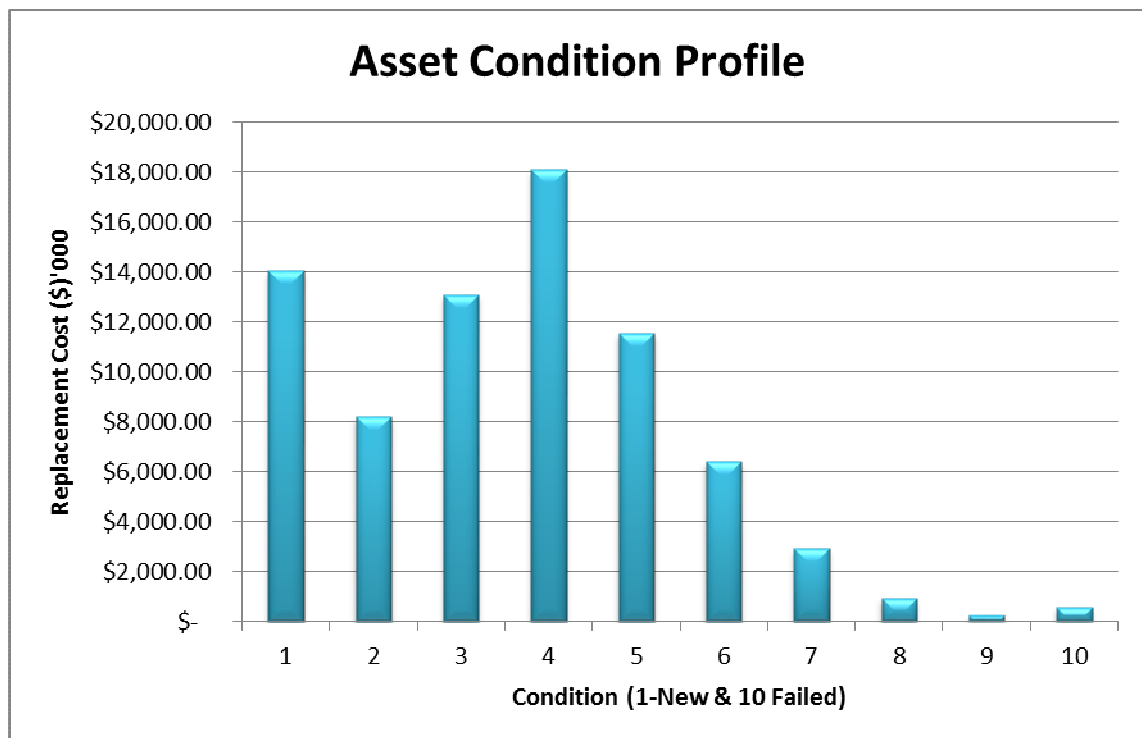
Table 5.1.2. Known Service Performance Deficiencies

Location	Service Deficiency
Throughout the Randwick LGA	Footpath defects have been identified and listed on a defects register. We have a defects program being implemented with a substantial level of funding allocated to the program
Throughout the Randwick LGA	There are many footpaths that do not have kerb ramps at the street junctions. The identified locations are prioritised and works carried out to install the kerb ramps
Throughout the Randwick LGA	Some of the existing kerb ramps are too steep and do not meet the specification. The identified kerb ramps are reconstructed to the relevant specifications

5.1.3 Asset condition

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

Fig 3. Asset Condition Profile



Condition is measured using a 1 – 10 rating system. The following condition ratings are used for a concrete footpath.

Rating	Description of Condition
1 - New	New
2 - Excellent	Discolouration
3 - Very Good	Loss of surface cement. May show small amounts of wear and tear.
4 - Good	Superficial cracks evident. Minor wear and tear in joints and at edges.
5 - Average	Aggregates exposed. Some wear and tear in joints and at edges. Hairline cracking evident display. Joint displacements less than 10mm high. Slight chipping of pavers. May display up to 1 trip hazard every 20 metres;
6 - Satisfactory	May display up to 2 trip hazards every 20 metres; evidence of edge drop offs, slight unevenness, grass rubbing, cracking, wear and/or settlement of restorations; Minor maintenance is required
7 - Unsatisfactory	Defects occur regularly or in clusters; Edge drop exceeds 50mm; several trip hazards visible with signs of wear and ravelling of asphaltic concrete and/or settlement of restorations; cracks in pavers, paver rocking, evidence of grass rubbing; slipperiness problems; less than 15% of footpath requires replacement
8 - Poor	Same as 7; Between 15-50% of footpath requires replacement
9 - Consider Reconstruction	Same as 7; 51-80% of footpath requires replacement
10 - Imminent Failure/Failed	Same as 7; greater than 80% of footpath requires replacement

5.1.4 Asset valuations

The value of assets as at 30 June 2012 covered by this asset management plan is summarised below. Assets were last revalued in 2010-11. Assets are valued at Brownfield rates.

Current Replacement Cost \$96,437,000

Depreciable Amount \$96,437,000

Depreciated Replacement Cost \$24,235,000

Annual Depreciation Expense \$1,392,000

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

Asset Consumption \$1,392,000

Asset renewal \$865,000

Annual Upgrade/expansion \$835,000

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.

Modes of Footpath Failure

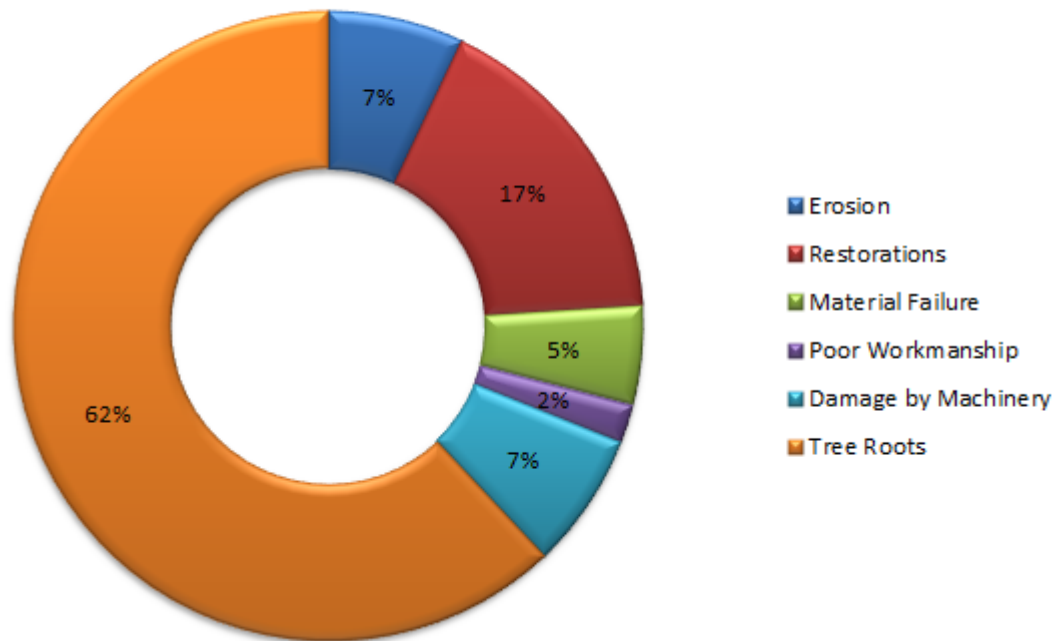


Table 5.2. Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan
All footpaths	Trips due to tree roots, subsidence, age, service trenches and vehicular damage	High	Footpaths showing signs of cracking should be flagged for reinspection. Footpaths containing lengthy or numerous hazardous trip points should score highly, consequently receive priority for reconstruction through the renewal plan.
All	Unreliable asset register results in audit qualification and loss of confidence in asset management plan	High	Asset data improvement programme as part of asset revaluation with compliance monitored by Council Audit Committee.

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 cleaning 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

Year	Maintenance Expenditure		
	Reactive	Planned	Cyclic
2009/10	\$ 1,047,529		
2010/11	\$ 1,172,759		
2011/12	\$ 318,837	\$ 1,275,348	\$

Maintenance expenditure levels are considered to be adequate to meet required service levels. Future revision of this asset management plan will include linking required maintenance expenditures with required service levels.

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

5.3.2 Standards and specifications

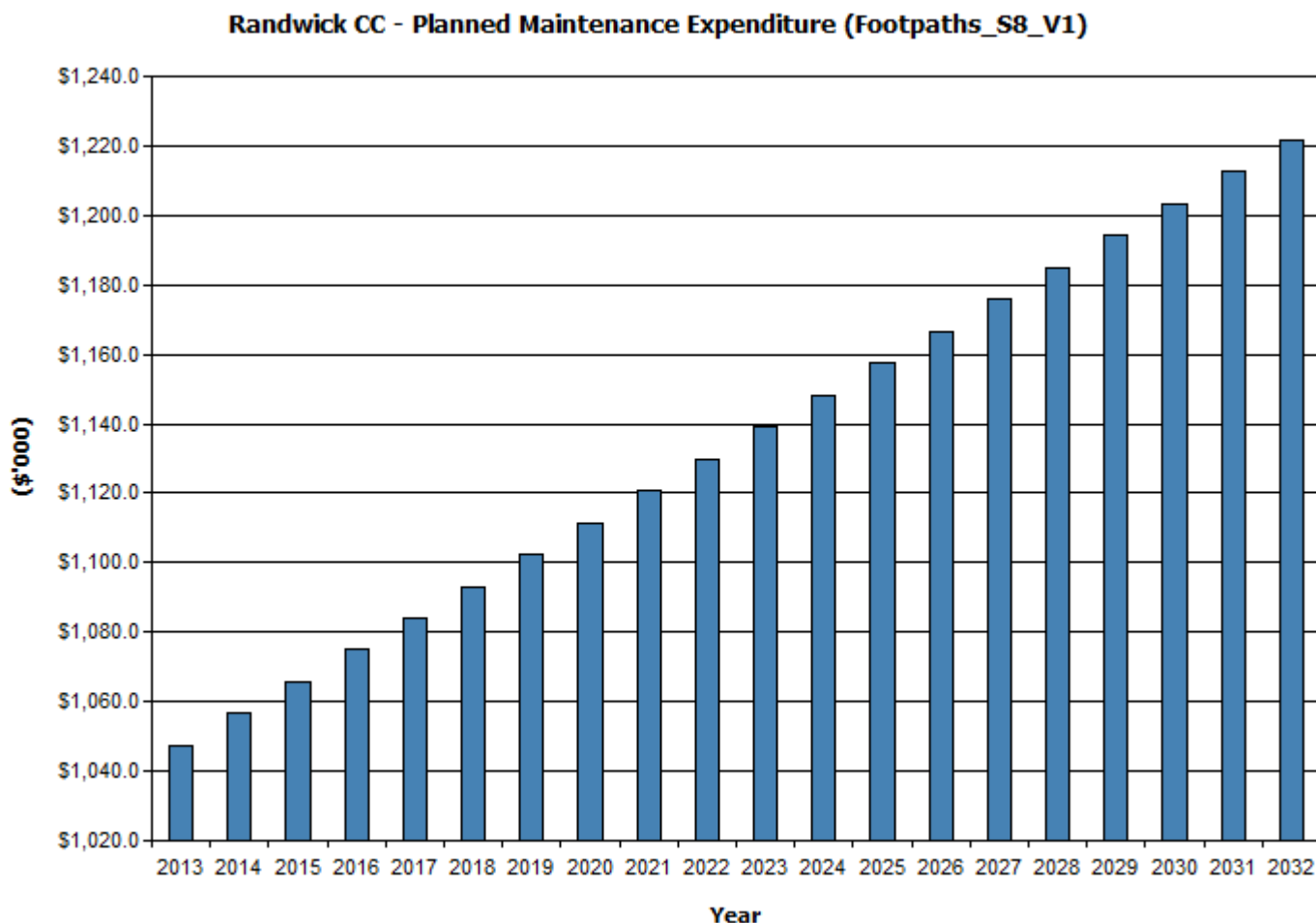
Maintenance work is carried out in accordance with the following Standards and Specifications.

- Footpath grinding is carried out in accordance with the Australian Standard for Pedestrian Surfaces (AS/NZS 3661.1.1933)
- Footpath grinding works meets AS/NZS 4663:2002 for the slip resistance measurement of existing surfaces
- Footpath specifications are in accordance with Council's AUS-SPEC specifications and Council's standard drawing SD4A – Standard Footpath and Vehicular Crossing.

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 2012 dollar values.

Fig 4. Planned Maintenance Expenditure



Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded is 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 or by nomination by staff, the public or other sources. 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
Community – Function	10%
Community – Quality	5%
Technical – Condition	30%
Technical – Risk of Failure	40%
Technical – Operating/Maintenance and lifecycle costs	15%
Total	100%

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 use of recycled aggregates in concrete.

5.4.2 Renewal standards

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

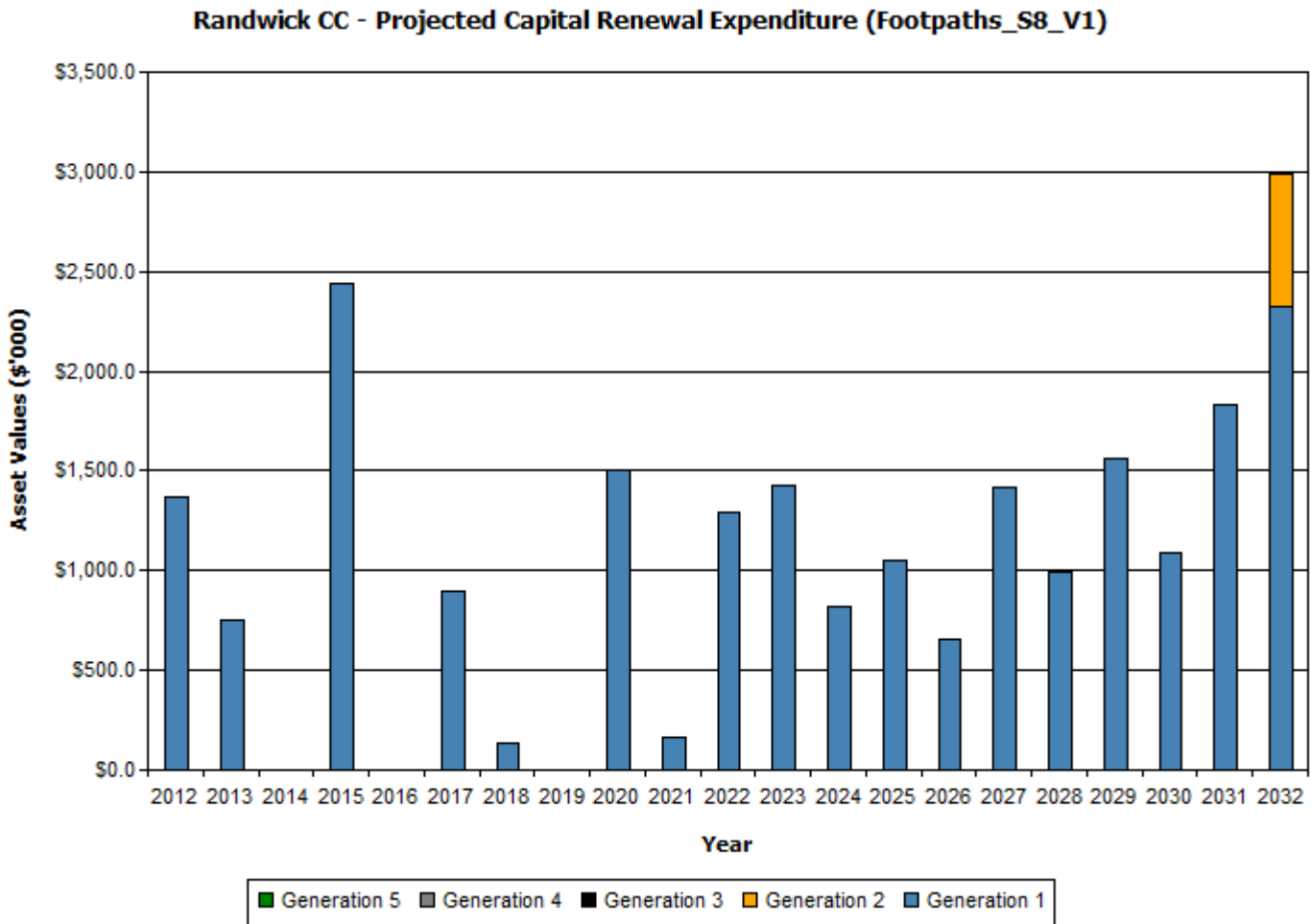
- Footpath grinding is carried out in accordance with the Australian Standard for Pedestrian Surfaces (AS/NZS 3661.1.1933)
- Footpath grinding works meets AS/NZS 4663:2002 for the slip resistance measurement of existing surfaces
- Footpath specifications are in accordance with Council's AUS-SPEC specifications and Council's standard drawing SD4A – Standard Footpath and Vehicular Crossing.

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 2012 dollar values.

The projected capital renewal program is shown in Appendix A.

Fig 5. Projected Capital Renewal Expenditure



Deferred renewal, i.e. those assets identified for renewal and not scheduled for renewal in capital works programs are to 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
Safety	35%
Community Expectation	15%
Lifecycle Costs	25%
Community Benefits (Usage, population, future development)	25%
Total	100%

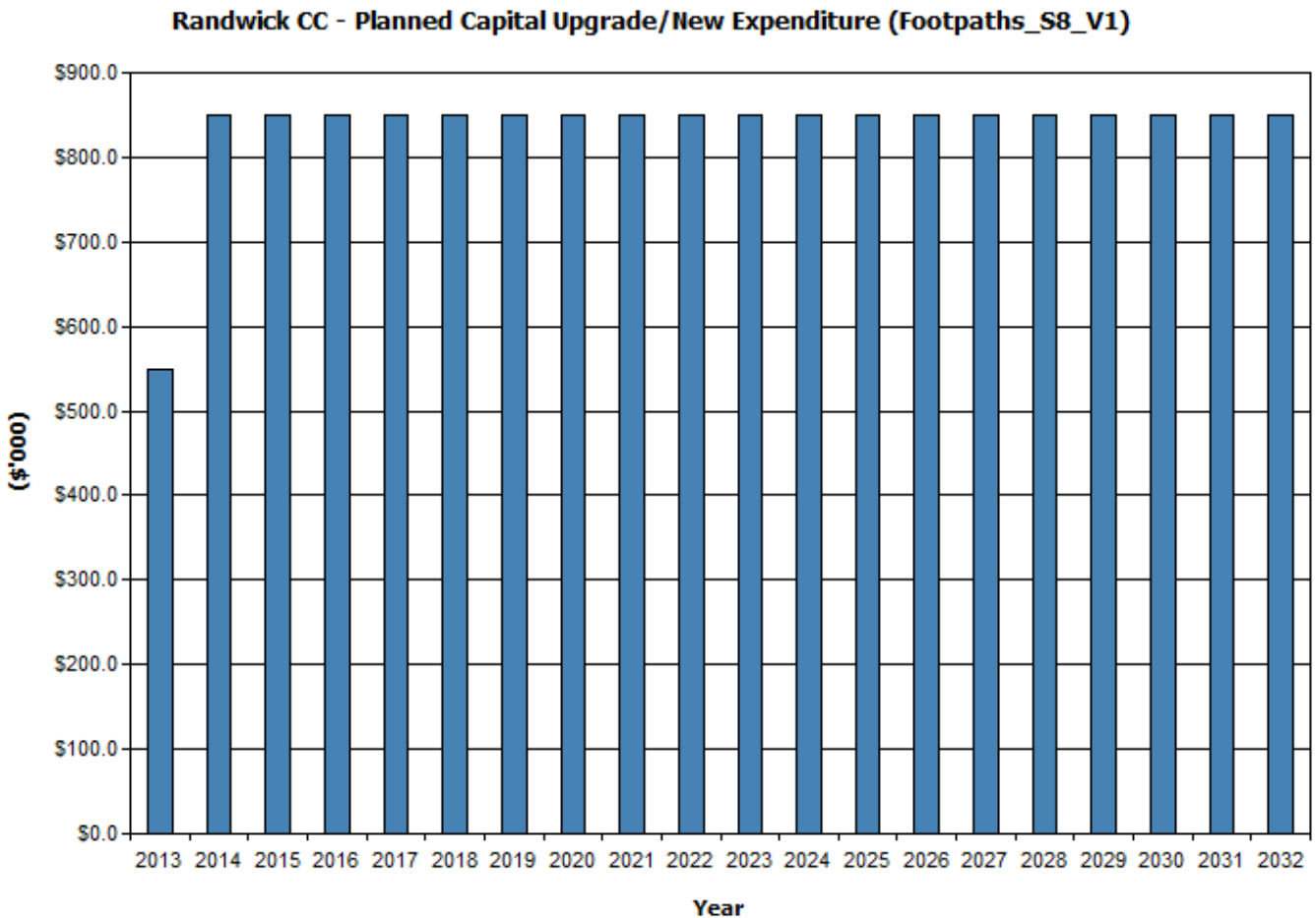
5.5.2 Standards and specifications

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. The planned upgrade/new capital works program is shown in Appendix C. All costs are shown in current 2012 dollar values.

Fig 6. Planned Capital Upgrade/New Asset Expenditure



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	Cash flow from disposal
No assets identified for disposal at this time			

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

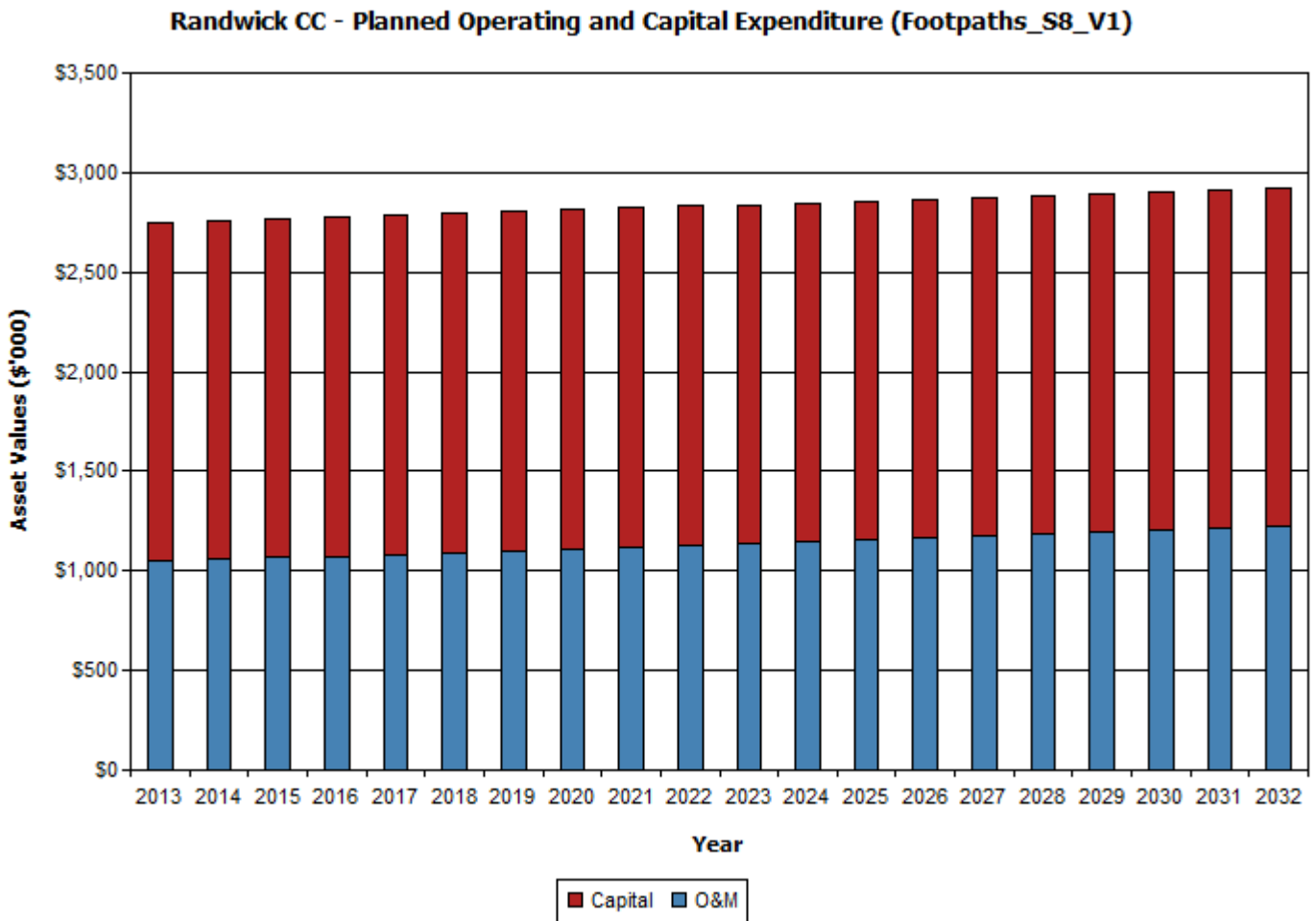
6. FINANCIAL SUMMARY

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 projected 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 2012 dollar values.

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 20 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 \$2,220,804.

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 \$2,197,330.

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 footpath asset management plan is to identify levels of service that the community needs and can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

The life cycle gap for services covered by this asset management plan is \$221,272 per annum. The life cycle sustainability index is 0.90.

Medium term – 20 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 may be compared to existing or planned expenditures in the 20 year period to identify any gap. In a core asset management plan, a gap is generally due to increasing asset renewals.

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 annual and cumulative funding gap between projected and planned renewals.

Fig 8. Projected and Planned Renewals and Current Renewal Expenditure

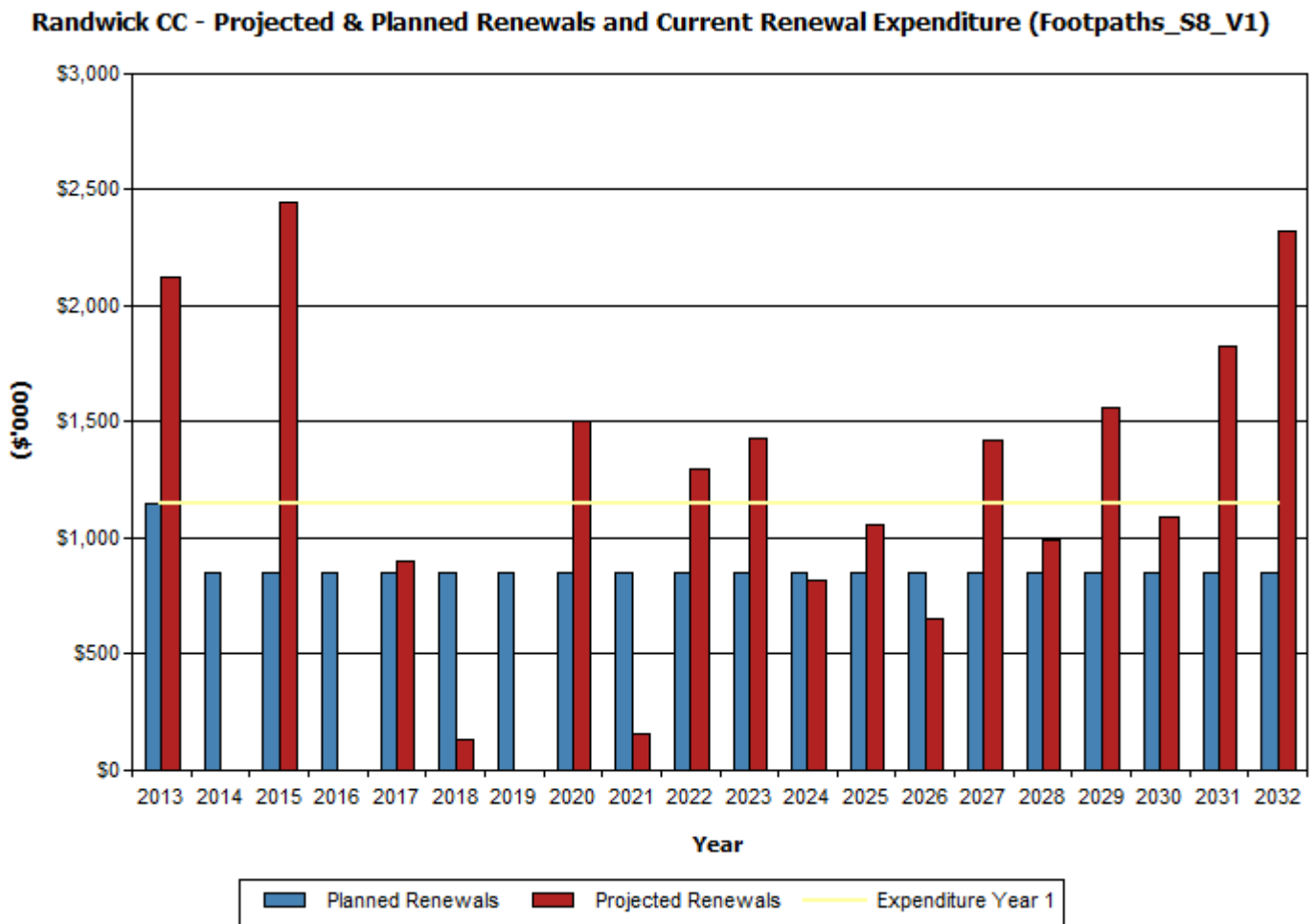


Table 6.1.1 shows the gap between projected and planned renewals.

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/Surplus in Renewal Expenditure (Projected- Planned) (\$'000)	Cumulative Renewal Funding Shortfall (\$'000)
2013	\$0.00	\$1,047.33	\$2,120.51	\$550.00	\$0.00	\$1,150.00	\$970.51	\$970.51
2014	\$0.00	\$1,056.51	\$0.00	\$850.00	\$0.00	\$850.00	-\$850.00	\$120.51
2015	\$0.00	\$1,065.69	\$2,442.65	\$850.00	\$0.00	\$850.00	\$1,592.65	\$1,713.16
2016	\$0.00	\$1,074.87	\$0.00	\$850.00	\$0.00	\$850.00	-\$850.00	\$863.16
2017	\$0.00	\$1,084.05	\$899.02	\$850.00	\$0.00	\$850.00	\$49.02	\$912.17
2018	\$0.00	\$1,093.23	\$134.51	\$850.00	\$0.00	\$850.00	-\$715.49	\$196.68
2019	\$0.00	\$1,102.41	\$0.00	\$850.00	\$0.00	\$850.00	-\$850.00	-\$653.32
2020	\$0.00	\$1,111.59	\$1,502.85	\$850.00	\$0.00	\$850.00	\$652.85	-\$0.46
2021	\$0.00	\$1,120.76	\$159.35	\$850.00	\$0.00	\$850.00	-\$690.65	-\$691.12
2022	\$0.00	\$1,129.94	\$1,294.85	\$850.00	\$0.00	\$850.00	\$444.85	-\$246.27
2023	\$0.00	\$1,139.12	\$1,428.48	\$850.00	\$0.00	\$850.00	\$578.48	\$332.22
2024	\$0.00	\$1,148.30	\$816.09	\$850.00	\$0.00	\$850.00	-\$33.91	\$298.30
2025	\$0.00	\$1,157.48	\$1,054.51	\$850.00	\$0.00	\$850.00	\$204.51	\$502.81
2026	\$0.00	\$1,166.66	\$654.00	\$850.00	\$0.00	\$850.00	-\$196.00	\$306.82
2027	\$0.00	\$1,175.84	\$1,421.88	\$850.00	\$0.00	\$850.00	\$571.88	\$878.70
2028	\$0.00	\$1,185.02	\$991.72	\$850.00	\$0.00	\$850.00	\$141.72	\$1,020.41
2029	\$0.00	\$1,194.20	\$1,564.47	\$850.00	\$0.00	\$850.00	\$714.47	\$1,734.89
2030	\$0.00	\$1,203.37	\$1,088.85	\$850.00	\$0.00	\$850.00	\$238.85	\$1,973.74
2031	\$0.00	\$1,212.55	\$1,829.85	\$850.00	\$0.00	\$850.00	\$979.85	\$2,953.59
2032	\$0.00	\$1,221.73	\$2,321.84	\$850.00	\$0.00	\$850.00	\$1,471.84	\$4,425.43

Please note in column 8, "Shortfall/Surplus," a negative value indicates a surplus and a positive value indicates a shortfall.

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

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

Council will manage the 'gap' by developing this asset management plan to provide guidance on future service levels and resources required to provide these services. Council will also consider a range of service level scenarios that predict the likely service consequences of the current funding level, the target funding level and options to extend asset life.

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 \$19,440,120.

This is an average expenditure of \$1,944,012. Estimated maintenance and capital renewal expenditure in year 1 is \$2,197,330. The 10 year sustainability index is 1.01

6.2 Funding Strategy

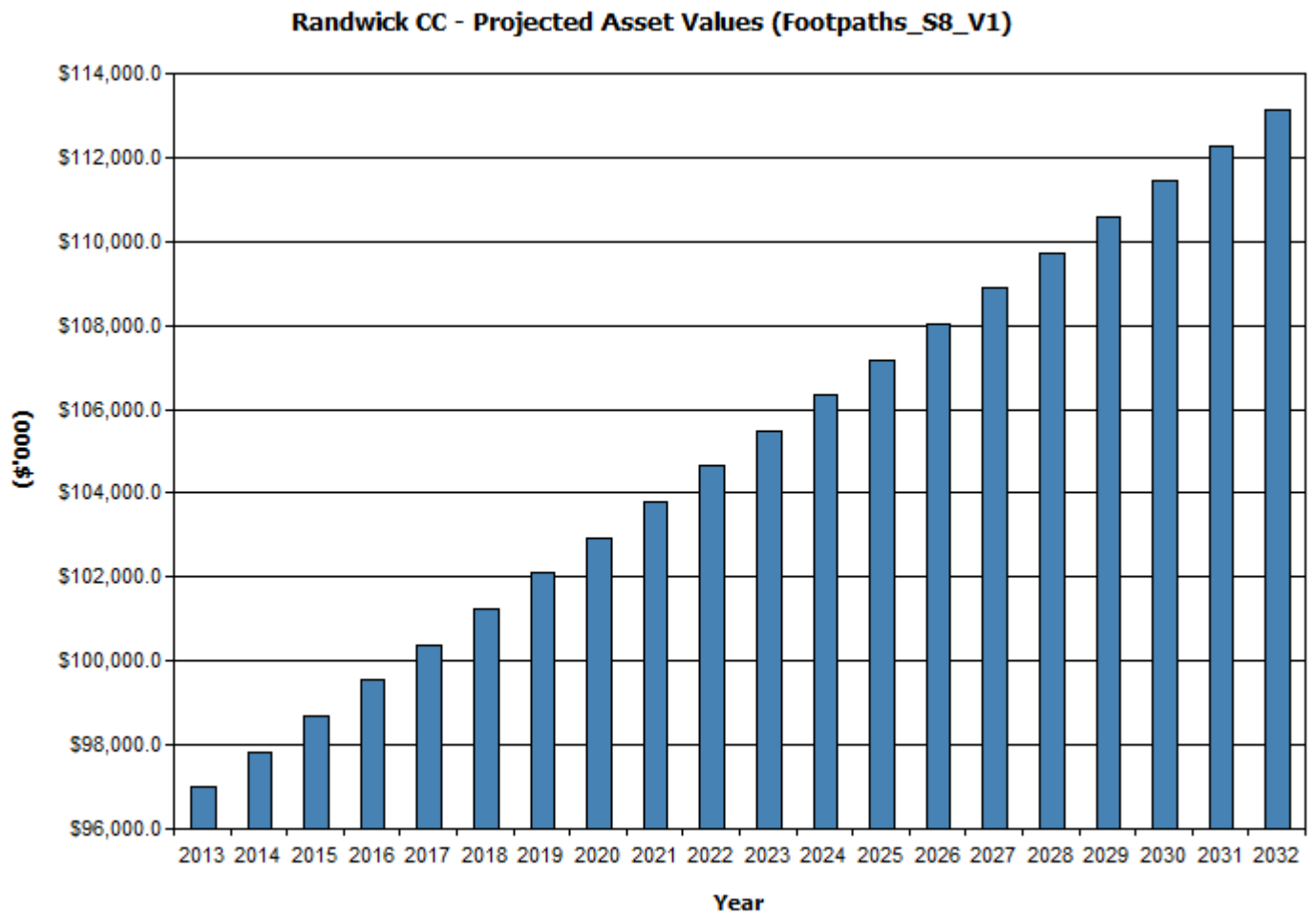
Projected expenditure identified in Section 6.1 is to be funded from Council's operating and capital budgets. The funding strategy is detailed in the Council's 10 year long term financial plan.

Achieving the financial strategy will require redirecting expenditure to maintenance and renewal activities that reduce the overall life cycle cost while controlling exposure to risk and loss. This will involve further investigation and analysis of the parts of Councils network where service levels could be adjusted, for example assets with low levels of utilisation.

6.3 Valuation Forecasts

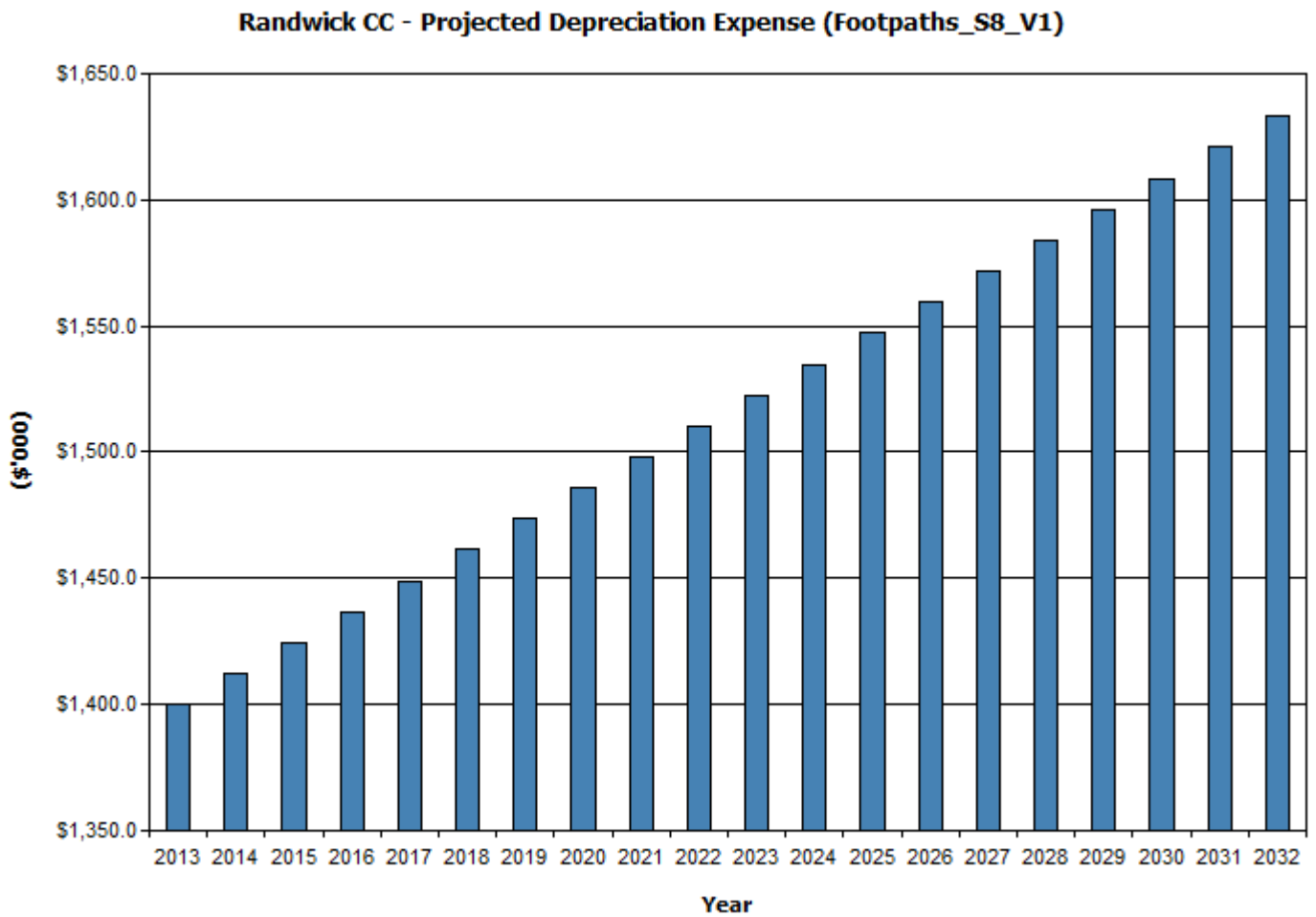
Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to Council. Fig 9 shows the projected replacement cost asset values over the planning period in current 2012 dollar values.

Fig 9. Projected Asset Values



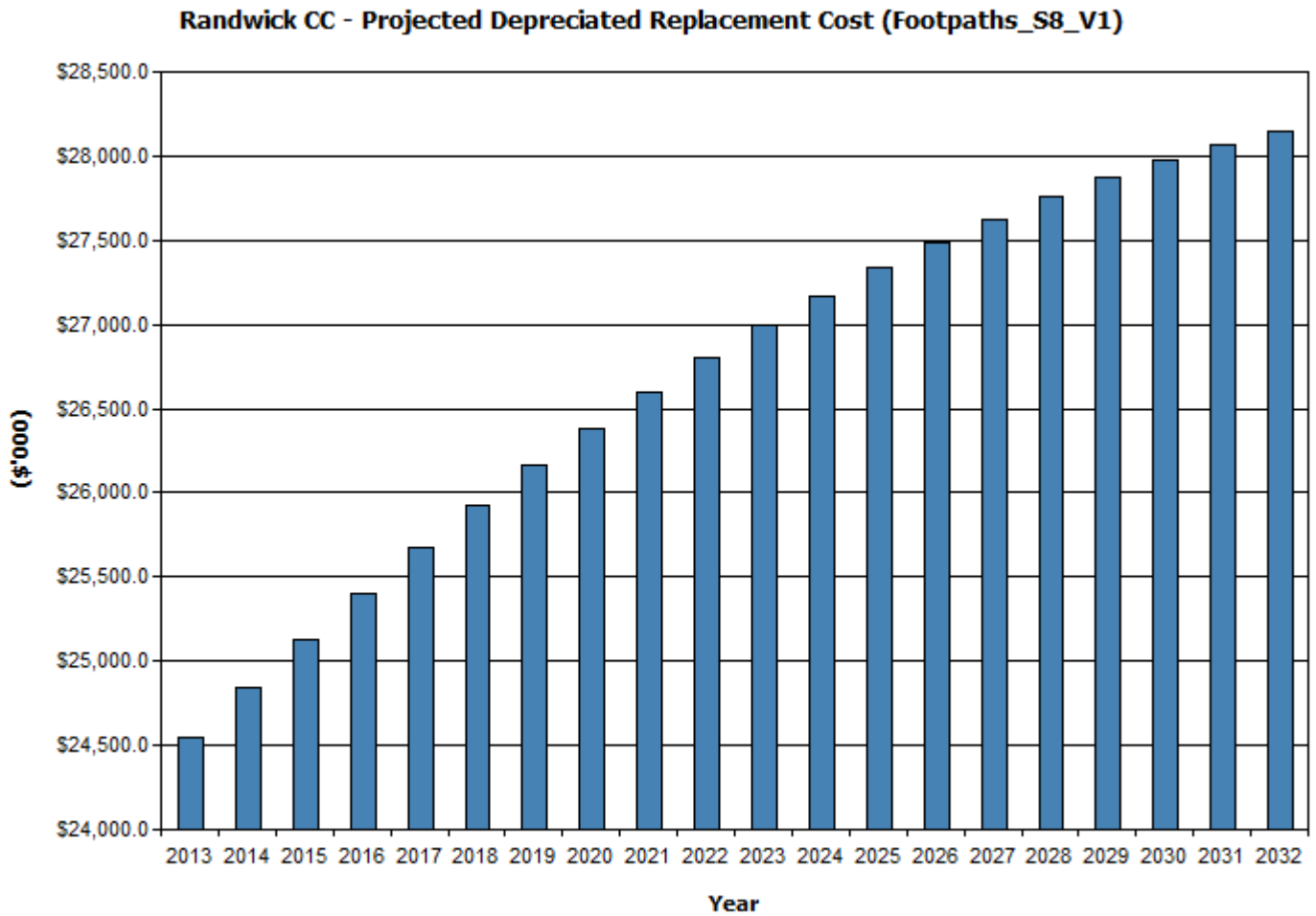
Depreciation expense values are forecast in line with asset values as shown in Fig 10.

Fig 10. Projected Depreciation Expense



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



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:

- All footpath renewal costs are equal to the assets current replacement value, however the renewal cost for an asphalt footpath is based on the unit rate of concrete replacement as Council has set a technical level of service to replace all asphalt footpaths with concrete footpaths.
- The estimates used for current rates or renewal and maintenance will remain constant at current 2012 values for the next 20 years.
- The depreciation curve for footpaths has been modified to steepen from condition 7 in line with the actual deterioration that would be anticipated over the final life of an asset.

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

- Complete a current 2012-13 asset revaluation in accordance with the Australian Infrastructure Financial Management Guidelines with a review of asset inventory, condition, useful life, remaining life, unit rates and residual values.

- Run modelling scenarios for different service level outcomes.
- Review expenditure options for maintenance and renewal combinations to reduce overall life cycle cost without increasing risk.

7. ASSET MANAGEMENT PRACTICES

7.1 Accounting/Financial Systems

Primary issues in the accounting of infrastructure assets relate to valuation and the change in service potential associated with depreciation and renewals.

These issues have been discussed previously, but financial systems must have the capacity to provide the required statutory and regulatory reporting requirements.

The Local Government Act 1993 requires Council to prepare an annual report as to its achievements with respect to the objectives and performance targets set out in its management plan for that year.

This report provides Council's audited financial statements including the condition of public works under the control of the council as at the end of that year, together with:

- A. An estimate (at current values) of the amount of money required to bring the works up to a satisfactory standard, and
- B. An estimate (at current values) of the annual expense of maintaining the works at that standard, and
- C. The council's program of maintenance for that year in respect of the works.

Australian Accounting Standard AASB116 is applicable to financial reporting by local governments, and provides guidelines for accounting methods and procedures.

In 2010 Council implemented a new financial system, Finance One by Technology One. This system contains a Works and Assets Module in which works orders or tasks can be raised and costing's tracked against a particular asset. Scheduled maintenance work orders are raised through the module which can be directly related to any asset for instance, Footpaths.

7.2 Asset Management Systems

Early this year Council received access to our Strategic Asset Management Software Package, SAM. This system includes an asset register, asset definitions, modelling capabilities and planned work reports.

"Recently, this has been recognized by the introduction of legislative requirements and state based Asset Management Programs, to support infrastructure managers, such as Local Government Authorities, to forecast and plan for their future asset management funding needs."

*Strategic Asset Management (SAM) allows organizations to address both these issues by systematically and optimally manage physical assets and their associated performance, risks and expenditure over the assets lifecycle to achieve specified organizational and community service levels."*²

Trial data has been prepared for downloading into SAM and Council asset staff are currently awaiting confirmation on software support arrangements to allow data trialling.

Other systems include;

- Revaluation spreadsheets,
- GIS (ESRI ArcGIS) tables

² <http://assetlifecycle.com.au/wp-content/uploads/Brochure-SAM-v2.7.pdf>

- Eview

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 Works Program and trends;
- The resulting budget, valuation and depreciation projections;
- The useful life analysis.

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

7.4 Standards and Guidelines

- Australian Infrastructure Financial Management Guidelines 2009, IPWEA Version 1
- International Infrastructure Management Manual 2011, IPWEA
- AASB116 Australian Accounting Standard - Infrastructure, plant, property, and equipment
- DLG - Code of Accounting and Reporting Practice
- DLG - Integrated Planning Guidelines
- AUS-SPEC - a joint venture which has published a series of documentation sets which assist Councils

8. PLAN IMPROVEMENT AND MONITORING

8.1 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- 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;
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan;

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	Resources Required	Timeline
1.	Conduct footpath revaluation 2012-2013	Engineering Services	Asset Engineer	2012/13
2.	Insert footpath data into SAM	Engineering Services	Asset Engineer	By 2014/15
3.	Review and improvement of maintenance practices	Engineering Services	Asset Engineer	Ongoing
4.	Complete inspection of Town Centres yearly	Engineering Services	Asset Engineer	Annually
5.	Complete 25% data collection yearly	Engineering Services	Asset Engineer	Annually
6.	Implement Asset Capitalisation and Accounting Policy in line with AIFMG to keep asset register up to date and current with financial capitalisation	Finance and Administration	Finance and Administration	Ongoing

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 with 20 year rolling forecasts and is due for revision and updating within the financial year of each Council election.

REFERENCES

Randwick City Council Community Consultation Principles and Consultation Planning Guide

Randwick City Council City Plan

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<http://www.saiglobal.com.ezproxy.lib.uts.edu.au/online/autologin.asp>

APPENDICES

Appendix A 10 Year Renewal Program

Appendix B Projected Population Details

Appendix C Footpath Sustainability Ratios

Appendix D Service Cost Long Term Financial Plan

Appendix A 10 Year Renewal Program

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
1	Alfreda Street	Arden Street To Brook Street	Coogee	Concrete	Concrete	\$4,320.00
1	Alison Road	Brook Street To Arden Street	Coogee	Brick and Block	Concrete	\$17,459.00
1	Alison Road	Arden Street To Brook Street	Coogee	Concrete	Concrete	\$5,200.00
1	Arcadia Street	Arden Street To Beach Street	Coogee	Asphalt	Concrete	\$2,730.00
1	Baird Ln	Baird Ln North To Beauchamp Rd	Matraville	Concrete	Concrete	\$11,276.01
1	Barry Street	Clift Ln To Greville St	Clovelly	Concrete	Concrete	\$6,259.99
1	Barry Street	Clovelly Road To Greville Street	Clovelly	Concrete	Concrete	\$25,646.99
1	Beach Street	Arcadia Street To Clovelly Road	Coogee	Asphalt	Concrete	\$7,950.00
1	Beach Street	Clovelly Road To Arcadia Street	Coogee	Asphalt	Concrete	\$8,000.00
1	Beach Street	Clovelly Road To Arcadia Street	Coogee	Asphalt	Concrete	\$15,000.00
1	Boronia St	Anzac Pde To Boronia St	Kensington	Asphalt	Concrete	\$38,482.20
1	Bream Street	Arden Street To Brook Street	Coogee	Asphalt	Concrete	\$22,200.00
1	Bream Street	Arden Street To Brook Street	Coogee	Asphalt	Concrete	\$6,840.00
1	Brook Street	Bream Street To Alison Road	Coogee	Asphalt	Concrete	\$11,880.00
1	Brook Street	Bream Street To Alison Road	Coogee	Asphalt	Concrete	\$11,340.00
1	Brook Street	Clovelly Road To Division Street	Coogee	Asphalt	Concrete	\$6,300.00
1	Brook Street	Clovelly Road To Division Street	Coogee	Asphalt	Concrete	\$10,620.00
1	Brook Street	Division Street To Clovelly Road	Coogee	Asphalt	Concrete	\$4,200.00
1	Brook Street	Division Street To Clovelly Road	Coogee	Asphalt	Concrete	\$3,240.00
1	Brook Street	Division	Coogee	Asphalt	Concrete	\$5,760.00

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
		Street To Clovelly Road				
1	Bruce Avenue	Eastbourne Avenue To Surfside Avenue	Randwick	Concrete	Concrete	\$10,280.42
1	Bundock Street	Avoca Street To Canberra Street	South Coogee	Concrete	Concrete	\$7,800.00
1	Byron Street	Carr Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$40,500.00
1	Carrington Road	Dolphin Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$18,700.00
1	Carrington Road	Dolphin Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$15,640.00
1	Carter Lane	Castle Lane To The End	Clovelly	Concrete	Concrete	\$9,431.05
1	Carter Street	Avoca Street To Castle Street	Clovelly	Concrete	Concrete	\$23,609.35
1	Challis Lane	Wentworth Street To Earl Street	Randwick	Concrete	Concrete	\$19,376.92
1	Church Street	Cowper Street To Frances Street	Randwick	Asphalt	Concrete	\$97,831.18
1	Church Street	Frances Street To Alison Road	Randwick	Asphalt	Concrete	\$94,974.75
1	Clovelly Road	Beach Street To Flood Street	Clovelly	Concrete	Concrete	\$27,733.04
1	Coogee Bay Road	Mount Street To Melody Street	Coogee	Asphalt	Concrete	\$6,600.00
1	Cowper Street	Prince Street To Church Street	Randwick	Asphalt	Concrete	\$125,407.61
1	Dangar Lane	Darley Road To White Street	Randwick	Concrete	Concrete	\$62,229.83
1	Dangar Lane	White Street To Tramway Lane	Randwick	Concrete	Concrete	\$67,072.93
1	Darley Road	Evans Street To Dangar Street	Randwick	Concrete	Concrete	\$64,966.66
1	Darling Ln	192 Darling Ln To The End	Kensington	Concrete	Concrete	\$4,144.11
1	Darling Ln	Darling St To 192 Darling Ln	Kensington	Concrete	Concrete	\$3,263.61

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
1	Division Street	Brook Street To Arden Street	Coogee	Concrete	Concrete	\$5,590.00
1	Dolphin Street	Brook Street To Mount Street	Coogee	Asphalt	Concrete	\$26,840.00
1	Douglas Street	The End To Varna Street	Clovelly	Asphalt	Concrete	\$6,157.50
1	Dudley Street	Byron Street To Carrington Road	Randwick	Concrete	Concrete	\$58,522.72
1	Earl Lane	Challis Street To Challis Lane	Randwick	Concrete	Concrete	\$10,006.72
1	Earl Lane	Stephen Street To Challis Street	Randwick	Concrete	Concrete	\$18,538.58
1	Evans Street	Govett Street To Darley Road	Randwick	Asphalt	Concrete	\$16,123.18
1	Figtree Avenue	Pine Street To The End	Randwick	Concrete	Concrete	\$33,652.99
1	Frenchmans Road	Avoca Street To Clovelly Road	Randwick	Asphalt	Concrete	\$114,052.94
1	Frenchmans Road	Kemmis Street To Carrington Road	Randwick	Asphalt	Concrete	\$53,007.74
1	Frenchmans Road	Kemmis Street To Carrington Road	Randwick	Concrete	Concrete	\$95,172.06
1	Gordon Street	The End To Waverly Street	Randwick	Concrete	Concrete	\$21,387.57
1	Hill Street	Bream Street To Arcadia Street	Coogee	Asphalt	Concrete	\$12,540.00
1	Houston Ln	Day Ave To Barker St	Kensington	Concrete	Concrete	\$3,285.53
1	Jacaranda Place	Elphinstone Road To The End South	South Coogee	Brick and Block	Concrete	\$5,746.00
1	John Lane	John Street To Car Park	Randwick	Concrete	Concrete	\$1,147.83
1	Kemmis Street	Clovelly Road To Frenchmans Road	Clovelly	Concrete	Concrete	\$7,786.99
1	Leonard Ave	Edward Ave To End Propnum 5	Kingsford	Concrete	Concrete	\$5,285.13
1	Little Mort Street	Mort Street To Govett Street	Randwick	Concrete	Concrete	\$6,595.51
1	Malabar Road	Rainbow Street To Arden Street	South Coogee	Asphalt	Concrete	\$12,880.00

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
1	Malabar Road	Arden Street To Napper Street	South Coogee	Concrete	Concrete	\$1,300.00
1	Malabar Road	Rainbow Street To Arden Street	South Coogee	Concrete	Concrete	\$1,430.00
1	Melody Street	Dolphin Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$12,600.00
1	Middle Street	Botany Street To Jane Street	Randwick	Concrete	Concrete	\$12,477.79
1	Milroy Ave	End Propnum 12 To The End	Kensington	Asphalt	Concrete	\$18,075.47
1	Mort Lane	White Street To Govett Lane	Clovelly	Concrete	Concrete	\$18,318.37
Total						\$1,502,786.27
2	Mort Street	Govett Lane To Govett Street	Clovelly	Concrete	Concrete	\$13,538.43
2	Mount Street	Carr Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$3,600.00
2	Mount Street	Carr Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$2,600.00
2	Mount Street	Coogee Bay Road To Carr Street	Coogee	Asphalt	Concrete	\$12,900.00
2	Mount Street	Carr Street To Coogee Bay Road	Coogee	Concrete	Concrete	\$7,930.00
2	Moverly Road	Malabar Road To Elphinstone Road	South Coogee	Concrete	Concrete	\$1,950.00
2	Pacific St	Boundary St To Pacific St	Clovelly	Concrete	Concrete	\$5,363.58
2	Pacific Street	Boundary Street To The End	Clovelly	Concrete	Concrete	\$28,512.67
2	Power Lane	Castle Lane To Clovelly Road	Randwick	Concrete	Concrete	\$9,721.92
2	Power Lane	Earl Street To Castle Lane	Randwick	Concrete	Concrete	\$8,915.51
2	Randwick Street	Cowper Street To Gordon Street	Randwick	Concrete	Concrete	\$21,744.49
2	Ravenswood Avenue	Searle Avenue To Carrington Road	Clovelly	Concrete	Concrete	\$28,130.47
2	Ravenswood Avenue	Searle Avenue To	Randwick	Concrete Slabs	Concrete	\$26,003.23

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
		Carrington Road		Sml		
2	Simeon St	Douglas St To Manson Pl	Clovelly	Concrete	Concrete	\$15,157.49
2	Stephen Lane	Wentworth Street To The End	Clovelly	Concrete	Concrete	\$19,088.75
2	Stephen Street	Wentworth Street To Chepstow Street	Clovelly	Concrete	Concrete	\$27,280.07
2	Susan Lane	Fern Street To Barry Street	Randwick	Concrete	Concrete	\$6,233.99
2	Thorpe Street	Melrose Parade To The End	Clovelly	Concrete	Concrete	\$9,723.66
2	Tramway Lane	Wentworth Street To Dangar Street	Randwick	Concrete	Concrete	\$19,274.05
2	Varna St	Douglas St To Knox St	Clovelly	Asphalt	Concrete	\$10,780.21
2	Varna St	Fern St To Varna St	Clovelly	Asphalt	Concrete	\$3,566.05
2	Varna St	Knox St To Varna St	Clovelly	Asphalt	Concrete	\$14,312.86
2	Walkway	Anzac Pde To Anzac Pde	Maroubra	Asphalt	Concrete	\$4,027.60
2	Walkway	Carrington Rd To Pauling Ave	Coogee	Concrete	Concrete	\$14,313.52
2	Walkway To Propnum 2	Inglethorpe Ave To Eastern Ave	Kensington	Concrete	Concrete	\$12,614.43
2	Wallace St	7 Wallace St To Anzac Pde	Kingsford	Brick and Block	Concrete	\$123,517.52
2	Waverly Street	Stanley Street To Sydney Street	Randwick	Concrete	Concrete	\$27,021.80
2	Wentworth Lane	Wentworth Street To Dangar Lane	Randwick	Concrete	Concrete	\$16,649.67
2	William Street	Cowper Street To King Street	Randwick	Asphalt	Concrete	\$116,989.47
2	Willis Ln	41 Willis Ln To Middle St	Kingsford	Concrete	Concrete	\$6,264.10
2	Abbot Street	Mount Street To Melody Street	Coogee	Concrete	Concrete	\$10,660.00
2	Abbotford Ln(East)	33 Abbotford Ln To Alison Rd	Kensington	Concrete	Concrete	\$1,286.73
2	Abbotford St	Carlton Ln West To Carlton Ln East	Kensington	Concrete	Concrete	\$11,142.97

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
2	Albion St	Albion St To Albion St	Clovelly	Concrete	Concrete	\$8,633.11
2	Albion Street	Carrington Road To Pine Street	Clovelly	Concrete	Concrete	\$81,628.47
2	Arcadia Street	Arden Street To Brook Street	Coogee	Concrete	Concrete	\$8,450.00
2	Astolat Street	Avoca Street To The End	Randwick	Concrete	Concrete	\$11,679.09
2	Astolat Street	Avoca Street To The End	Randwick	Concrete	Concrete	\$8,703.26
2	Balfour Ln	Balfour Rd To Kensington Rd	Kensington	Concrete	Concrete	\$9,286.07
2	Barry Street	Susan Ln To Clift Ln	Clovelly	Concrete	Concrete	\$12,256.66
2	Botany St	Marville Ave To Walenore Ave	Kingsford	Concrete	Concrete	\$11,520.88
Total						\$792,972.78
3	Botany Street	High Street To Arthur Street	Randwick	Concrete	Concrete	\$21,414.19
3	Boundary Street	St Thomas Street To Ocean Street	Randwick	Concrete	Concrete	\$85,164.83
3	Boundary Street	Winchester Road To St Thomas Street	Randwick	Concrete	Concrete	\$24,455.41
3	Brook Street	Bream Street To Alison Road	Coogee	Concrete	Concrete	\$2,860.00
3	Brook Street	Clovelly Road To Division Street	Coogee	Concrete	Concrete	\$7,020.00
3	Brook Street	Clovelly Road To Division Street	Coogee	Concrete	Concrete	\$6,660.00
3	Bundock Street	Avoca Street To Canberra Street	South Coogee	Concrete	Concrete	\$5,700.00
3	Bunnerong Rd	Bunnerong Rd To Bunnerong Rd	Daceyville	Concrete	Concrete	\$5,528.92
3	Burton Lane	Church Street To Prince Street	Clovelly	Concrete	Concrete	\$9,511.41
3	Caerleon Crescent	Chapel Street To The End	Randwick	Concrete	Concrete	\$17,552.10
3	Caerleon Crescent	Chapel Street To The End	Randwick	Concrete	Concrete	\$15,643.19
3	Carrington Road	Alison Road To Coogee Street	Coogee	Concrete	Concrete	\$7,740.00
3	Carrington Road	Alison Road To Marcel	Coogee	Concrete	Concrete	\$2,520.00

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
		Avenue				
3	Carrington Road	Alison Road To Marcel Avenue	Coogee	Concrete	Concrete	\$10,080.00
3	Carrington Road	Coogee Bay Road To Dolphin Street	Coogee	Concrete	Concrete	\$10,660.00
3	Carrington Road	Marcel Avenue To Alison Road	Coogee	Concrete	Concrete	\$10,980.00
3	Carter Street	Avoca Street To Castle Street	Randwick	Concrete	Concrete	\$25,217.70
3	Castle Street	Stephen Street To Challis Lane	Randwick	Concrete	Concrete	\$23,409.84
3	Church Lane	Barden Lane To Church Street	Randwick	Concrete	Concrete	\$35,105.57
3	Clifton Rd	Boundary St To Clifton Rd	Clovelly	Concrete	Concrete	\$15,502.18
3	Clovelly Road	Arden Street To Beach Street	Randwick	Concrete	Concrete	\$51,204.01
3	Clovelly Road	Avoca Street To Frenchmans Road	Randwick	Concrete	Concrete	\$84,218.09
3	Clovelly Road	Carrington Road To Fern Street	Clovelly	Concrete	Concrete	\$52,381.42
3	Cowper Street	Prince Street To Church Street	Randwick	Concrete	Concrete	\$59,747.05
3	Darling Ln	Darling St To Darling Ln	Kensington	Concrete	Concrete	\$2,057.11
3	Day Ln	Strachan St To Barker St	Kensington	Concrete	Concrete	\$22,921.30
3	Division Street	Brook Street To Arden Street	Coogee	Concrete	Concrete	\$4,420.00
3	Douglas St	Fern St To Seaview St	Clovelly	Concrete Slabs Sml	Concrete	\$13,284.59
3	Dutruc Street	Alison Road To Rae Street	Randwick	Concrete	Concrete	\$15,224.09
3	Edward Ave	Leonard Ave To Cottenham Ave	Kensington	Concrete	Concrete	\$9,525.24
3	Elphinstone Road	Bundock Street To Iluka Place	South Coogee	Concrete	Concrete	\$17,680.00
3	Fitzgerald Avenue	Malabar Road To Anzac Parade	Maroubra	Concrete	Concrete	\$38,236.90
3	Gilderthorpe Avenue	Clovelly Road To	Randwick	Concrete	Concrete	\$54,583.68

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
		Frenchmans Road				
3	Glebe Street	The End To Carrington Road	Randwick	Concrete	Concrete	\$29,101.71
3	Glen Lane	Carrington Road To Glen Avenue	Randwick	Concrete	Concrete	\$1,678.51
3	Glenwood Avenue	Dolphin Street To The End	Coogee	Concrete	Concrete	\$13,650.00
3	Govett Street	Dangar Street To Darley Road	Clovelly	Concrete	Concrete	\$55,380.99
Total						\$868,020.03
4	Govett Street	Dangar Street To Darley Road	Randwick	Concrete	Concrete	\$43,843.39
4	Hooper Street	Carrington Road To Albion Street	Randwick	Concrete	Concrete	\$33,699.10
4	Irvine St	Leonora Ave To Snape St	Kingsford	Concrete	Concrete	\$8,889.56
4	John Lane	John Street To Car Park	Randwick	Concrete	Concrete	\$3,559.48
4	John Street	Alison Road To King Street	Randwick	Concrete	Concrete	\$81,392.01
4	Keith Street	Boundary Street To Clovelly Road	Clovelly	Concrete	Concrete	\$15,139.59
4	King Lane	Church Street To Barden Lane	Clovelly	Concrete	Concrete	\$10,125.66
4	Knox St	Clift Ln To Greville St	Clovelly	Concrete	Concrete	\$6,304.10
4	Malabar Road	Arden Street To Napper Street	South Coogee	Concrete	Concrete	\$9,450.00
4	Malabar Road	Edgecliffe Avenue To Torrington Road	South Coogee	Concrete	Concrete	\$6,760.00
4	Malabar Road	Edgecliffe Avenue To Torrington Road	South Coogee	Concrete	Concrete	\$10,400.00
4	Malabar Road	Napper Street To Edgecliffe	South Coogee	Concrete	Concrete	\$2,860.00

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
		Avenue				
4	Maroubra Road	Duncan Street To Malabar Road	Maroubra	Concrete	Concrete	\$34,814.91
4	Mawson Ln	Mawson Ln To Melba Ave	Chifley	Concrete	Concrete	\$1,182.26
4	McLennan Avenue	Clovelly Road To The End	Randwick	Concrete	Concrete	\$24,271.11
4	McLennan Avenue	Clovelly Road To The End	Randwick	Concrete	Concrete	\$30,962.75
4	Meeks St	Willis St To Kennedy Ln	Kingsford	Concrete	Concrete	\$3,775.20
4	Middle St	Willis St To 40 Middle St	Kingsford	Concrete	Concrete	\$4,953.81
4	Mons Avenue	French Street To Malabar Road	Maroubra	Concrete	Concrete	\$39,366.99
4	Mons Avenue	Haig Street To French Street	Maroubra	Concrete	Concrete	\$39,022.23
4	Northumberland Street	Boundary Street To Warner Avenue	Clovelly	Concrete	Concrete	\$18,293.30
4	Oberon Street	Arden Street To Dundas Street	Coogee	Concrete	Concrete	\$640.00
4	Oberon Street	Brook Street To Mount Street	Coogee	Concrete	Concrete	\$55,420.00
4	Ormond Gardens	The End To Brook Street	Coogee	Concrete	Concrete	\$14,560.00
4	Oxford Street	York Road To Lang Road	Clovelly	Concrete	Concrete	\$83,565.70
4	Pacific Ln	Pacific Ln To The End	Clovelly	Concrete	Concrete	\$1,093.10
4	Park Street	Boundary Street To Surfside Avenue	Clovelly	Concrete	Concrete	\$21,299.98
4	Pine Street	Carrington Road To Market Street	Randwick	Concrete	Concrete	\$82,716.30

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
4	Pine Street	Carrington Road To Market Street	Randwick	Concrete	Concrete	\$71,375.30
4	Randwick Street	Cowper Street To Gordon Street	Randwick	Concrete	Concrete	\$28,283.64
4	Reserve Lane	Oberon Lane To Clarke Lane	Randwick	Concrete	Concrete	\$4,545.18
4	Roberts Avenue	Frenchmans Road To Ravenswood Lane	Randwick	Concrete	Concrete	\$24,803.72
4	Searle Avenue	Frenchmans Road To Clovelly Road	Randwick	Concrete	Concrete	\$44,880.34
Total						\$862,248.71
5	Shackel Avenue	Bruce Avenue To The End	Clovelly	Concrete	Concrete	\$32,183.74
5	St Marks Road	The End To Frenchmans Road	Clovelly	Concrete	Concrete	\$72,934.25
5	Stanley Street	Avoca Street To Monmouth Street	Randwick	Concrete	Concrete	\$27,186.82
5	Stanley Street	Monmouth Street To Wentworth Street	Randwick	Concrete	Concrete	\$15,914.45
5	Stanley Street	Monmouth Street To Wentworth Street	Randwick	Concrete	Concrete	\$15,721.76
5	Surfside Avenue	Bruce Avenue To Park Street	Clovelly	Concrete	Concrete	\$5,386.92
5	Susan Ln	225 Susan Ln To 235 Susan Ln	Clovelly	Concrete	Concrete	\$1,070.19
5	Sydney Street	Wentworth Street To Randwick Street	Randwick	Concrete	Concrete	\$21,518.60
5	Sydney Street	Wentworth Street To Randwick Street	Randwick	Concrete	Concrete	\$19,667.47
5	Torrington Road	Malabar Road To Marine Parade	Maroubra	Concrete	Concrete	\$26,289.90
5	Torrington Road	Malabar Road To Marine Parade	Maroubra	Concrete	Concrete	\$73,346.94

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
5	Walkway	Elaroo Ave (19) To Goonda Ave	La Perouse	Concrete	Concrete	\$27,401.64
5	Walkway	Elaroo Ave (21) To Murrong Pl (14)	La Perouse	Concrete	Concrete	\$23,041.54
5	Walkway	Elaroo Ave (21) To Murrong Pl (2)	La Perouse	Concrete Slabs Sml	Concrete	\$14,935.99
5	Wallace St	Width Change To 7 Wallace St	Kingsford	Concrete Slabs Sml	Concrete	\$24,038.64
5	Wentworth Street	King Street To Darley Road	Randwick	Concrete	Concrete	\$85,341.78
5	Wood Street	Rae Street To Eulalie Avenue	Randwick	Concrete	Concrete	\$20,110.04
5	Wride Street	Duncan Street To Malabar Road	Maroubra	Concrete	Concrete	\$31,045.69
5	Albion St	83 Albion St To Pine St	Clovelly	Asphalt	Concrete	\$17,777.09
5	Anzac Parade	275 Anzac Pde To Strachan St	Kingsford	Asphalt	Concrete	\$15,440.78
5	Anzac Parade	Day Ave To 219 Anzac Pde	Kensington	Asphalt	Concrete	\$10,730.74
5	Avoca Street	Clovelly Road To Cowper Street	Randwick	Asphalt	Concrete	\$61,277.61
5	Beach Street	Arcadia Street To The End	Coogee	Asphalt	Concrete	\$20,900.00
5	Bream Street	Melody Street To Carrington Road	Coogee	Asphalt	Concrete	\$16,000.00
5	Brook Street	Dudley Street To Carr Street	Coogee	Asphalt	Concrete	\$19,080.00
5	Brook Street	Dudley Street To Oberon Street	Coogee	Asphalt	Concrete	\$5,460.00
5	Brook Street	Oberon Street To Dudley Street	Coogee	Asphalt	Concrete	\$4,840.00
5	Carrington Road	Dolphin Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$6,460.00
Total						\$715,102.58
6	Clovelly Road	Avoca Street To Frenchmans Road	Randwick	Asphalt	Concrete	\$171,790.79

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
6	Clovelly Road	Darley Road To Earl Street	Randwick	Asphalt	Concrete	\$51,762.04
6	Clovelly Road	Donnellan Circuit To Victory Street	Clovelly	Asphalt	Concrete	\$34,774.20
6	Clovelly Road	Flood Street To Donnellan Circuit	Clovelly	Asphalt	Concrete	\$79,374.64
6	Cuthill Street	Belmore Road To Avoca Street	Randwick	Asphalt	Concrete	\$24,834.42
6	Dolphin Street	Mount Street To Brook Street	Coogee	Asphalt	Concrete	\$16,560.00
6	Doncaster Ave	Abbotford St To Alison Rd	Kensington	Asphalt	Concrete	\$9,723.52
6	Douglas St	Bishops Ave To Fern St	Clovelly	Asphalt	Concrete	\$11,738.06
6	Douglas St	Carey St To Douglas Ln	Clovelly	Asphalt	Concrete	\$4,381.86
6	Douglas Street	Carrington Road To Fern Street	Clovelly	Asphalt	Concrete	\$37,198.95
6	Elizabeth Street	Alison Road To Silver Street	Randwick	Asphalt	Concrete	\$30,597.33
6	Kelly St	Kelly Ln To The End	Matraville	Asphalt	Concrete	\$13,793.53
6	Kennedy Ln	Barker St To Norton St	Kingsford	Asphalt	Concrete	\$1,078.63
6	Malabar Road	Arden Street To Rainbow Street	South Coogee	Asphalt	Concrete	\$28,000.00
6	Oswald Street	Courland Street To Clyde Street	Randwick	Asphalt	Concrete	\$78,949.89
6	Rainbow Street	Arden Street To Mount Street	Coogee	Asphalt	Concrete	\$4,200.00
6	Samuel Terry Avenue	Todman Ave To End Propnum 3	Kensington	Asphalt	Concrete	\$7,582.16
6	St Pauls Street	Avoca Street To Perouse Road	Randwick	Asphalt	Concrete	\$62,780.77
6	Varna St	Varna St To Arden St	Clovelly	Asphalt	Concrete	\$18,673.13
6	Vicar Street	The End To Coogee Bay Road	Coogee	Asphalt	Concrete	\$22,600.00
6	Walkway	Maroubra Rd To French St	Maroubra	Asphalt	Concrete	\$10,657.06
6	Avoca Lane	Kara Street To Dine Lane	Randwick	Brick Pavers	Concrete	\$7,153.44
6	Evelyn Street	Denning Street To Malabar Road	South Coogee	Brick and Block	Concrete	\$31,960.00
6	Jacaranda Place	The End North To	South Coogee	Brick and Block	Concrete	\$4,080.00

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
		Jacaranda Place				
6	Jacaranda Place	The End South To Elphinstone Road	South Coogee	Brick and Block	Concrete	\$7,480.00
6	Sully Street	Howard Street To The End	Randwick	Brick Pavers	Concrete	\$83,838.16
6	Albion St	101 Albion St To Hooper St	Clovelly	Asphalt	Concrete	\$14,635.76
6	Alfreda Street	Arden Street To Brook Street	Coogee	Asphalt	Concrete	\$8,280.00
6	Anzac Parade	397 Anzac Pde To 399 Anzac Pde	Kingsford	Asphalt	Concrete	\$12,599.33
6	Anzac Parade	407 Anzac Pde To 411 Anzac Pde	Kingsford	Asphalt	Concrete	\$9,557.71
6	Anzac Parade	Barker St To Harbourne Ln	Kingsford	Asphalt	Concrete	\$27,853.40
6	Anzac Parade	Canara Ave To Anzac Pde	Little Bay	Asphalt	Concrete	\$41,951.70
6	Anzac Parade	Lawson St To Franklin St	Matraville	Asphalt	Concrete	\$7,389.49
6	Ascot St	3 Ascot St To 3 Ascot St	Kensington	Asphalt	Concrete	\$2,609.39
6	Avoca Lane	Howard Lane To Prowse Road	Randwick	Asphalt	Concrete	\$11,458.31
Total						\$991,897.67
7	Avoca Street	Belmore Road To Barker Street	Randwick	Asphalt	Concrete	\$146,244.85
7	Bowral St	5 Bowral St To 7 Bowral St	Kensington	Asphalt	Concrete	\$2,182.58
7	Brook Street	Division Street To Clovelly Road	Coogee	Asphalt	Concrete	\$7,560.00
7	Brook Street	Division Street To Clovelly Road	Coogee	Asphalt	Concrete	\$3,240.00
7	Brook Street	Dolphin Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$17,700.00
7	Brook Street	Dudley Street To Oberon Street	Coogee	Asphalt	Concrete	\$14,760.00
7	Brook Street	Oberon Street To Dudley Street	Coogee	Asphalt	Concrete	\$11,600.00
7	Burnie Street	Clovelly Road To Arden Street	Clovelly	Asphalt	Concrete	\$135,097.96
7	Byron Street	Carr Street To Coogee	Coogee	Asphalt	Concrete	\$6,600.00

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
		Bay Road				
7	Carr Street	Byron Street To Mount Street	Coogee	Asphalt	Concrete	\$9,600.00
7	Carr Street	Byron Street To Mount Street	Coogee	Asphalt	Concrete	\$5,320.00
7	Carrington Road	Coogee Bay Road To Carr Street	Coogee	Asphalt	Concrete	\$33,660.00
7	Carrington Road	Frenchmans Road To Hooper Street	Clovelly	Asphalt	Concrete	\$22,463.61
7	Clovelly Rd	338 Clovelly Rd To Park St	Clovelly	Asphalt	Concrete	\$48,914.25
7	Clovelly Rd	Flood St To Mundarrah St	Clovelly	Asphalt	Concrete	\$16,357.17
7	Clovelly Road	Beach Street To Flood Street	Clovelly	Asphalt	Concrete	\$13,426.84
7	Clovelly Road	Earl Street To Avoca Street	Randwick	Asphalt	Concrete	\$52,767.76
7	Clyde Street	The End To The End	Clovelly	Asphalt	Concrete	\$7,412.54
7	Coogee Bay Road	Brook Street To Mount Street	Coogee	Asphalt	Concrete	\$26,700.00
7	Cook Street	Frances Street To Cowper Street	Randwick	Asphalt	Concrete	\$20,823.26
7	Cowper Street	Church Street To Avoca Street	Randwick	Asphalt	Concrete	\$152,292.82
7	Darley Road	Dangar Street To Avoca Street	Randwick	Asphalt	Concrete	\$49,864.85
7	Darling St	93 Darling St To Doncaster Ave	Kensington	Asphalt	Concrete	\$2,652.09
7	Dolphin Street	Brook Street To Arden Street	Coogee	Asphalt	Concrete	\$27,360.00
7	Douglas St	Bishops Ave To Fern St	Clovelly	Asphalt	Concrete	\$9,091.91
7	Douglas St	Carrington Rd To Carey St	Clovelly	Asphalt	Concrete	\$5,736.68
7	Douglas St	Douglas St To Bishops Ave	Clovelly	Asphalt	Concrete	\$8,287.18
7	Douglas St	The End To Varna St	Clovelly	Asphalt	Concrete	\$6,613.58
7	Dudley Street	Brook Street To Arden Street	Coogee	Asphalt	Concrete	\$31,800.00
Total						\$896,129.93

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
8	Frances Street	Church Street To Cook Street	Randwick	Asphalt	Concrete	\$37,572.81
8	High Street	Ajc Gate To Wansey Road	Randwick	Asphalt	Concrete	\$108,837.66
8	Ivy Street	Lee Street To Perouse Road	Randwick	Asphalt	Concrete	\$47,295.07
8	Kara Lane	Howard Street To Avoca Lane	Randwick	Asphalt	Concrete	\$3,485.73
8	Malabar Road	Arden Street To Rainbow Street	South Coogee	Asphalt	Concrete	\$1,000.00
8	Market Street	Darley Road To Clovelly Road	Randwick	Asphalt	Concrete	\$36,578.01
8	Milroy Ave	Lenthall St To End Propnum 12	Kensington	Asphalt	Concrete	\$13,810.02
8	Milroy Ave	Lenthall St To End Propnum 14	Kensington	Asphalt	Concrete	\$11,459.00
8	Mount Street	Carr Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$11,100.00
8	Mount Street	Coogee Bay Road To Carr Street	Coogee	Asphalt	Concrete	\$3,000.00
8	Oberon Street	Mount Street To Brook Street	Coogee	Asphalt	Concrete	\$36,040.00
8	Perouse Road	Barker Street To St Pauls Street	Randwick	Asphalt	Concrete	\$24,513.52
8	Samuel Terry Avenue	Baker St To Myrtle St	Kensington	Asphalt	Concrete	\$15,782.97
8	Sherwood St	Balfour Rd To End Propnum 2	Kensington	Asphalt	Concrete	\$6,227.31
8	St Pauls Street	Avoca Street To Perouse Road	Randwick	Asphalt	Concrete	\$26,248.78
8	Surfside Avenue	Park Street To Keith Street	Randwick	Asphalt	Concrete	\$28,351.68
8	Titania Street	Howard Street To Avoca Lane	Randwick	Asphalt	Concrete	\$10,733.16
8	Todman Ave	Anzac Pde To Todman Ave	Kensington	Asphalt	Concrete	\$3,893.54
8	Todman Ave	Lenthall St To Balfour Rd	Kensington	Asphalt	Concrete	\$22,772.81
8	Villier St	Villier St To Villier St	Kensington	Asphalt	Concrete	\$9,464.48
8	Walkway	Judge St To Clyde St	Randwick	Asphalt	Concrete	\$12,221.50
8	Alfreda Street	Arden Street To Brook Street	Coogee	Asphalt	Concrete	\$19,800.00

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
8	Anzac Parade	404 Anzac Pde To 414 Anzac Pde	Kingsford	Asphalt	Concrete	\$11,931.85
8	Anzac Parade	Harbourne Ln To 396 Anzac Pde	Kingsford	Asphalt	Concrete	\$9,425.80
8	Ascot St	2 Ascot St To 3 Ascot St	Kensington	Asphalt	Concrete	\$3,912.66
8	Ascot St	Anzac Pde To 5 Ascot St	Kensington	Asphalt	Concrete	\$18,908.65
8	Ascot St	Ascot St To Ascot St	Kensington	Asphalt	Concrete	\$9,892.88
8	Boronia St	28 Boronia St To Salisbury St	Kensington	Asphalt	Concrete	\$15,575.00
8	Boronia St	46 Boronia St To 40 Boronia St	Kensington	Asphalt	Concrete	\$17,056.41
8	Boronia St	Duke St To 60 Boronia St	Kensington	Asphalt	Concrete	\$30,770.54
8	Bowral St	15 Bowral St To Doncaster Ave	Kensington	Asphalt	Concrete	\$4,660.77
8	Doncaster Ave	Doncaster Ave (268) To Doncaster Ave (268)	Kensington	Asphalt	Concrete	\$7,095.29
8	Walkway	Havelock Ave To Dudley St	Coogee	Asphalt	Concrete	\$10,319.91
8	Abbey Street	Alison Road To Frances Street	Randwick	Concrete	Concrete	\$8,526.50
8	Aeolia Street	Perouse Road To Aeolia Lane	Randwick	Concrete	Concrete	\$11,928.00
Total						\$650,192.31
9	Alison Road	Wansey Road To Doncaster Avenue	Randwick	Concrete	Concrete	\$205,619.81
9	Andrew Street	Boundary Street To Surfside Avenue	Clovelly	Concrete	Concrete	\$23,007.73
9	Anzac Parade	Boronia St To 9 Anzac Pde	Kensington	Asphalt	Concrete	\$44,471.21
9	Anzac Parade	Duke St To Todman Ave	Kensington	Asphalt	Concrete	\$38,601.68
9	Anzac Parade	Fitzgerald Avenue To Beauchamp Road	Maroubra	Concrete	Concrete	\$42,754.92
9	Anzac Parade	Fitzgerald Avenue To Beauchamp Road	Maroubra	Concrete	Concrete	\$45,277.83
9	Arcadia Street	Arden Street To Brook Street	Coogee	Concrete	Concrete	\$3,510.00

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
9	Arden Street	Division Street To Alison Road	Clovelly	Concrete	Concrete	\$34,276.19
9	Austral Street	Anzac Parade To Bilga Crescent	Malabar	Concrete	Concrete	\$22,011.21
9	Baker St	Samuel Terry Avenue To Milroy Ave	Kensington	Concrete	Concrete	\$32,717.42
9	Balfour Rd	Balfour Rd To Todman Ave	Kensington	Concrete	Concrete	\$5,809.83
9	Barker Street	Avoca Street To Prowse Road	Randwick	Concrete	Concrete	\$75,917.47
9	Battery Street	Beach Street To Tower Street	Clovelly	Concrete	Concrete	\$40,158.71
9	Beauchamp Road	Broome Street To Malabar Road	Maroubra	Concrete	Concrete	\$20,933.90
9	Beauchamp Road	Davidson Crescent To Anzac Parade	Maroubra	Concrete	Concrete	\$22,754.42
9	Bligh Place	Clovelly Road To The End	Randwick	Concrete	Concrete	\$15,443.38
9	Bona Vista Avenue	Sackville Street To Bond Street	Maroubra	Concrete	Concrete	\$19,389.89
9	Borrodale Rd	Court Ave To Doncaster Ave	Kingsford	Concrete	Concrete	\$8,333.67
9	Botany St	Bunnerong Rd To Lancaster Cres	Kingsford	Concrete	Concrete	\$34,589.31
9	Botany St	Sturt Ln To Sturt St	Kingsford	Concrete Slabs Sml	Concrete	\$10,224.66
9	Boyce Road	Cooper Street To Garden Street	Maroubra	Concrete	Concrete	\$32,349.98
9	Brandon Street	Width Change To Knox Street	Clovelly	Concrete	Concrete	\$1,957.60
9	Bream Street	Melody Street To Carrington Road	Coogee	Concrete	Concrete	\$6,480.00
9	Broome Street	Brown Road To The End	Maroubra	Concrete	Concrete	\$52,658.19
9	Bundock Street	Malabar Road To Hendy Avenue	South Coogee	Concrete	Concrete	\$8,060.00
9	Bunnerong Rd	Anderson St To Apsley Ave	Daceyville	Concrete	Concrete	\$19,108.41
9	Bunnerong Rd	Apsley Ave To Bunnerong Rd	Daceyville	Concrete Slabs Sml	Concrete	\$13,868.76

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
9	Bunnerong Rd	Franklin St To Bunnerong Rd	Matraville	Concrete Slabs Sml	Concrete	\$16,739.62
9	Burnie St	Mundarrh St To Clovelly Rd	Clovelly	Asphalt	Concrete	\$38,984.47
9	Burton Street	Prince Street To Church Street	Randwick	Concrete	Concrete	\$24,626.57
9	Byng Street	Anzac Parade To Mons Avenue	Maroubra	Concrete	Concrete	\$38,388.35
9	Campbell Street	Boundary Street To Warner Avenue	Clovelly	Concrete	Concrete	\$19,823.22
Total						\$1,018,848.41
10	Canara Ave	Anzac Pde To Adina Ave	Phillip Bay	Concrete	Concrete	\$13,297.22
10	Canberra Street	Oberon Street To Howard Street	Randwick	Asphalt	Concrete	\$29,031.27
10	Carlton St	74 Carlton St To 19 Carlton St	Kensington	Concrete	Concrete	\$3,619.75
10	Carrington Road	Carr Street To Coogee Bay Road	Coogee	Asphalt	Concrete	\$12,580.00
10	Carrington Road	Coogee Bay Road To Dolphin Street	Coogee	Concrete	Concrete	\$5,590.00
10	Carrington Road	Dolphin Street To Coogee Street	Coogee	Concrete	Concrete	\$10,790.00
10	Coogee Bay Road	Mount Street To Brook Street	Coogee	Asphalt	Concrete	\$28,800.00
10	Doncaster Ave	Bowral St To 61 Doncaster Ave	Kensington	Asphalt	Concrete	\$26,708.28
10	Goodwood St	106 Goodwood St To Elsmere St	Kensington	Asphalt	Concrete	\$7,637.75
10	Goodwood St	Anzac Pde To 29 Goodwood St	Kensington	Asphalt	Concrete	\$14,148.58

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
10	Goodwood St	Elsmere St To 39 Goodwood St	Kensington	Asphalt	Concrete	\$8,099.85
10	Judge Street	Coogee Bay Road To The End	Randwick	Asphalt	Concrete	\$28,288.62
10	Nathan Street	Carrington Road To Brighton Road	Coogee	Asphalt	Concrete	\$4,160.00
10	Samuel Terry Avenue	End Propnum 3 To Milroy Ave	Kensington	Asphalt	Concrete	\$12,829.43
10	Samuel Terry Avenue	Milroy Ave To Carminya St	Kensington	Asphalt	Concrete	\$12,757.84
10	Vicar Street	Coogee Bay Road To The End	Coogee	Asphalt	Concrete	\$5,500.00
10	Walkway	Boronia St To Kensington Rd	Kensington	Concrete	Concrete	\$17,632.56
10	Walkway	Maxwell Ave To Mons Ave	Maroubra	Concrete Slabs Sml	Concrete	\$14,076.01
10	Anzac Parade	25 Anzac Pde To Botany St	Kingsford	Asphalt	Concrete	\$16,444.64
10	Anzac Parade	Addison St To 167 Anzac Pde	Kensington	Asphalt	Concrete	\$20,365.51
10	Anzac Parade	Todman Ave To 145 Anzac Pde	Kensington	Asphalt	Concrete	\$40,993.44
10	Arden Street	Dudley Street To Carr Street	Coogee	Asphalt	Concrete	\$13,860.00
10	Ascot St	10 Ascot St To 4 Ascot St	Kensington	Asphalt	Concrete	\$9,314.44
10	Ascot St	4 Ascot St To 59 Ascot St	Kensington	Asphalt	Concrete	\$7,519.40
10	Avoca Lane	Howard Lane To Kara Street	Randwick	Asphalt	Concrete	\$2,696.66
10	Beach Street	Clovelly Road To Arcadia Street	Coogee	Asphalt	Concrete	\$4,160.00

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
10	Beach Street	Clovelly Road To Arcadia Street	Coogee	Asphalt	Concrete	\$3,120.00
10	Boronia St	3 Boronia St To Anzac Pde	Kensington	Asphalt	Concrete	\$39,184.76
10	Burke St	Mitchell St To Cul De Sac St	Chifley	Asphalt	Concrete	\$7,800.00
10	Carlton St	6 Carlton St To Elsmere St	Kensington	Asphalt	Concrete	\$15,156.14
10	Carlton St	76 Carlton St To 76 Carlton St	Kensington	Asphalt	Concrete	\$5,208.46
10	Carlton St	Elsmere St To 2 Carlton St	Kensington	Asphalt	Concrete	\$8,101.94
10	Carr Street	Byron Street To Mount Street	Coogee	Asphalt	Concrete	\$5,320.00
10	Carr Street	Dudley Street To Byron Street	Coogee	Asphalt	Concrete	\$4,600.00
10	Carrington Road	Coogee Bay Road To Carr Street	Coogee	Asphalt	Concrete	\$360.00
10	Carrington Road	Alison Road To Marcel Avenue	Coogee	Concrete	Concrete	\$4,860.00
10	Carrington Road	Alison Road To Marcel Avenue	Coogee	Concrete	Concrete	\$10,260.00
10	Carrington Road	Alison Road To Marcel Avenue	Coogee	Concrete	Concrete	\$7,560.00
10	Carrington Road	Alison Road To Marcel Avenue	Coogee	Concrete	Concrete	\$11,520.00
10	Challis Street	Wentworth Street To Earl Street	Randwick	Concrete	Concrete	\$15,026.27
10	Clovelly Road	Arden Street To Beach Street	Clovelly	Concrete	Concrete	\$28,884.43
10	Clovelly Road	Donnellan Circuit To Victory Street	Clovelly	Concrete	Concrete	\$34,181.08

Program Year	Street Name	From	To	Old Material	New Material	Renewal Cost
10	Clovelly Road	Fern Street To Arden Street	Clovelly	Concrete	Concrete	\$67,962.27
10	Clovelly Road	Frenchmans Road To Carrington Road	Randwick	Concrete	Concrete	\$52,976.44
10	Coldstream Street	Moverly Road To Nymboida Street	South Coogee	Concrete	Concrete	\$23,790.00
10	Conway Avenue	Carey Lane To Clovelly Road	Clovelly	Asphalt	Concrete	\$39,876.15
10	Coogee Bay Road	Belmore Road To Carrington Road	Randwick	Concrete	Concrete	\$99,448.13
Total						\$856,097.32
Program Total						\$9,154,296.01

Appendix B Projected Population Details

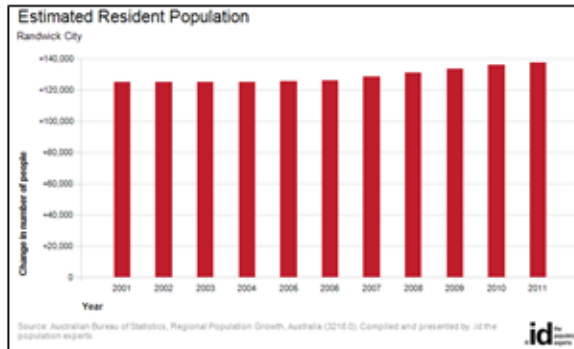
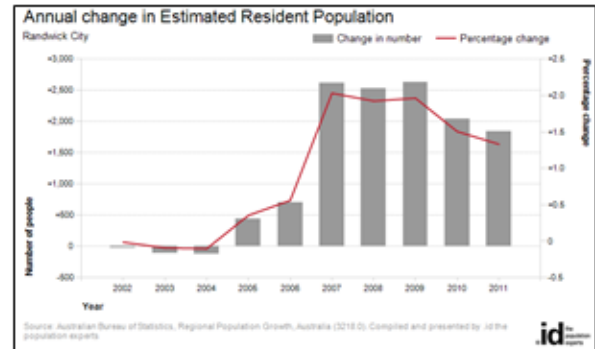


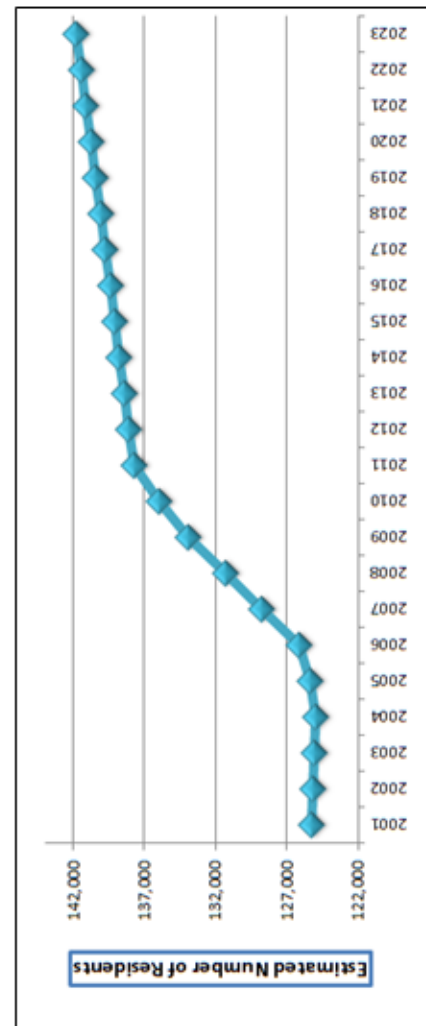
Table 173.1: The past and projected population of Randwick LGA, 1996-2036

Source: past data - Australian Bureau of Statistics;
Projections – Department of Planning
New South Wales Statistical Local Area Population Projections, 2006-2036

Year (ending June 30)	Number	Change in number	Change in %
2001	125,223		
2002	125,204	-19	-0.02
2003	125,088	-116	-0.09
2004	124,959	-129	-0.10
2005	125,404	+445	+0.36
2006	126,108	+704	+0.56
2007	128,723	+2,615	+2.07
2008	131,249	+2,526	+1.96
2009	133,877	+2,628	+2.00
2010	135,923	+2,046	+1.53
2011	137,757	+1,834	+1.35
2012	138,088	+331	+0.24
2013	138,419	+331	+0.24
2014	138,751	+332	+0.24
2015	139,085	+333	+0.24
2016	139,418	+334	+0.24
2017	139,753	+335	+0.24
2018	140,089	+335	+0.24
2019	140,425	+336	+0.24
2020	140,762	+337	+0.24
2021	141,100	+338	+0.24
2022	141,439	+339	+0.24
2023	141,778	+340	+0.24

ERP FROM ABS

ERP FORECAST



Appendix C Footpath Sustainability Ratios

Scenario 1	10 year ratio	
Projected 10 Yr	Total (\$) '000	Annual (\$) '000
Maintenance	\$10,886.38	\$1,088.64
Renewal	\$8,553.74	\$855.37
	\$19,440.12	\$1,944.01
Planned 10 Yr		
Maintenance	10 Year	\$10,886.38
Renewal	10 Year	\$8,800.00
		\$19,686.38
Sustainability Ratio		
Planned	\$19,686.38	
Projected	\$19,440.12	
Ratio		1.01

Scenario 2	20 Year Ratio	
Projected 20 Yr	Total (\$) '000	Annual (\$) '000
Maintenance	\$22,690.65	\$1,134.53
Renewal	\$21,725.43	\$1,086.27
	\$44,416.08	\$2,220.80
Planned 20 Yr		
Maintenance	20 Year	\$22,690.65
Renewal	20 Year	\$17,300.00
		\$39,990.65
Sustainability Ratio		
Planned	\$39,990.65	
Projected	\$44,416.08	
Ratio		0.90

Appendix D Service Cost compared to Long Term Financial Plan

