KING ISLAND COUNCIL

King Island
Strategic Asset Management Plan

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1 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

King Island Council (Council) provides and manages an extensive range of infrastructure and non-infrastructure assets to facilitate delivery of its services to its Community. Typical infrastructure assets include roads, bridges, drainage and footpaths, and non-infrastructure assets include, amongst others, operational and community buildings, parks and recreation facilities, and plant and equipment.

As custodian of these assets, Council is responsible for funding the maintenance and upkeep of assets to ensure they continue to function as built, and provide an acceptable level of service to the Community. It is contingent upon Council to ensure there is an appropriate level of funding to achieve the required standard against the pressures of increasing community expectation, increasing costs, limited revenues, and aging infrastructure.

Asset management planning is a comprehensive process to ensure the delivery of services from assets is provided in a financially sustainable manner. This **Strategic Asset Management Plan** (SAMP) details information about the greater part of Council's asset portfolio including actions required to provide an agreed level of service in the most cost-effective manner while outlining any associated risks. The SAMP defines the services to be provided, how the services are provided, and what funds are required to provide the services over a **10-year planning period**.

Asset management planning represents best practice and is required to be undertaken by all Tasmanian councils under *Section 70D of the Local Government Act 1993* and *The Local Government (Content of Plans and Strategies) Order 2014.* Under these requirements, councils must develop a Long-term strategic asset management plan (this SAMP), an asset management policy, and an asset management strategy. The King Island Council **Asset Management Policy** and **Asset Management Strategy** are covered separately to this SAMP. **The preparation of this SAMP is an action arising from Council's Asset Management Strategy**.

Asset management planning is an ongoing and evolving process. This SAMP will be expanded and refined over a number of years as further data is collected, analysed and incorporated.

1.2 Asset Description

The following asset categories (and subcategories) are covered under this SAMP:

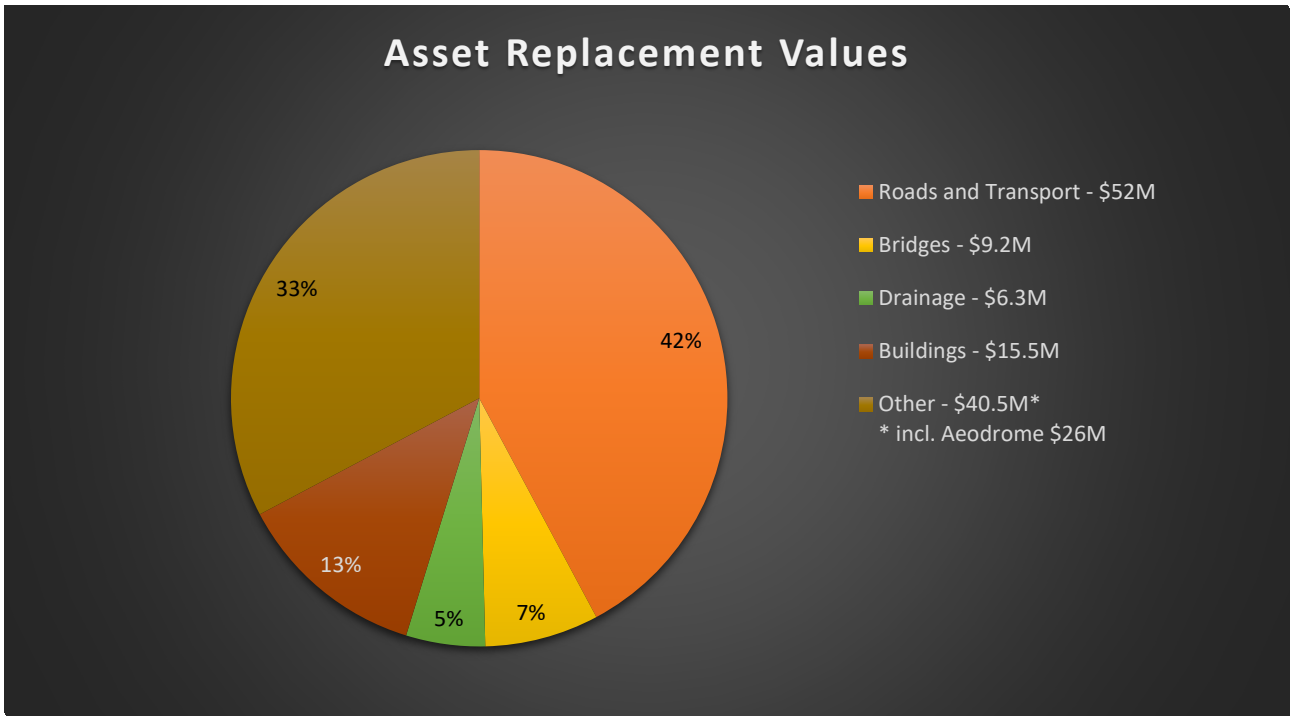
- **Roads and Transportation** – road pavements, kerb and gutter, footpaths, and street furniture
- **Bridges and Drainage** – road bridges, road culverts, urban stormwater pipes and pits
- **Buildings** – community buildings (museum, amenities, and sports) and operational buildings (administration, works depot, and waste)

Other asset categories such as the Airport and those that individually represent less than 5% of Council's total asset base will be addressed in future strategic asset management plans. These other asset categories include (but are not limited to):

- Parks and Recreation – playgrounds, sporting facilities, park furniture and facilities, and racecourse facilities (excluding buildings)
- Plant and equipment – mobile plant, vehicles, small plant, office equipment and information technology hardware and systems
- Waste Management – landfill and associated facilities (excluding buildings)
- Foreshore Marine – wharves, jetties, boat ramps

- Aerodrome - Council's **Airport** assets account for approximately 19% of the total asset portfolio value. This facility is a commercial operation with specific asset management and legislative requirements, and will be covered under a separate asset management plan yet to be developed. The short-term asset management needs, in terms of works to maintain and support the airport's efficient operation, are contained in Council's **Airport Master Plan**.

The asset categories covered under this SAMP have a total asset replacement value (ARV) estimated at **$83M**, and an estimated written down value (WDV) of **$51.4M.**



1.3 Levels of Service

Levels of Service (LoS) in the context of this SAMP refers to the means and extent to which, the function and service of each asset category, is delivered to the Community.

It is recognised that understanding the LoS the community is willing to accept and/or afford, is a critical input to the asset planning process, and as such, the expectations and requirements of our customers (the Community) need to be considered in the formulation of this SAMP.

This SAMP has been prepared in alignment to the Asset Management Goals and Strategies within Council's **Integrated 10 -year Strategic and Annual Plan** (Strategic Plan). In addition, customer requests, and complaints have been relied upon as an indicator of customer expectation and our performance in meeting those expectations. However, it is recognised that the number of customer requests and complaints are quite low, and as a result may not be reliable. On this basis, an action has been included in **Section 8.2 – Improvement Plan** to undertake a formal Customer Survey.

Should the Customer Survey bear out what the service request data indicates, then Council is currently providing a LOS that the Community is generally satisfied with in terms of:

Quality	- The condition and quality of the service is acceptable.
Function	- The service functions as expected.
Capacity/Utilisation	- There is generally the right mix, in terms of capacity and availability, of services to meet customer needs.

As a result, this SAMP has set its target at determining the funding and service requirements needed to maintain the current LOS for the term of the SAMP. Council's LTFP indicates current asset maintenance funding levels can be maintained over the next 10 years, providing a high confidence level in Council being able to sustainably retain the current LOS.

1.4 Future Demand

Demand drivers that may affect future demand upon Council's assets include aspects such as population and demographic changes, community preferences and expectations, environmental factors (such as climate change and sea-level rise), economic factors (such as agriculture, industry, and tourism), legislation, and technological changes.

Over the next 10 years, the predicted demand aspects and impacts are considered to be well within Council's asset capacity, without any specific intervention being required.

A summary of these aspects and impacts is as follows:

POPULATION – Population numbers over recent years have been in slow decline, however growth indicators for the coming 10 years look promising, and through private investment in industry, tourism, and housing, a modest net increase in population is possible (in the range of 100-300 people). This increase can easily be accommodated by Council's existing infrastructure and any assets created in association with new development such as subdivisions.

DEMOGRAPHICS – Typical of Australian society generally, the population of King Island is aging. Based on the 2005 ABS figures, at that time, 70% of the population were aged 50 years or older; 16 years on, and it is conceivable that more than 50% of the population is aged 65 or more. The 2021 Census will confirm the current age ranges and provide a good indicator of the trend.

The infrastructure-related implications for an aging population are not considered significant, though with a lowering of the proportion of people of working age, there may be a slight increase in revenue pressure on Council, impacting the resources available for asset maintenance and renewal. More likely, however, is an increased demand for disability access to community facilities.

CHANGES IN COMMUNITY EXPECTATIONS - Consistent with Australian society more broadly, the service expectations of the Community are likely to continue to increase. Given the very modest numbers of service requests Council currently receives however, it is expected that service delivery demands will remain manageable over the planning horizon.

CLIMATE CHANGE – The geography of King Island is such that any adverse impact upon Council's infrastructure directly as a result of anticipated sea-level rise, is likely to be modest.

The impact of more frequent and higher-intensity rainfall events is more likely to have an adverse impact on the service delivery of Council's road, bridge, and drainage assets. Increased rainfall can contribute to premature seal failure on roads, and diminish the condition of unsealed roads, and it could see increased instances of nuisance flooding from "water over road," for example.

Over the long-term it is conceivable that Council's infrastructure will see a reduction in effective lives, leading to the need for more frequent renewal, however the impact of this is unlikely to be felt over the next 10 years. The best strategy for Council in this regard is to continue to monitor the condition of its assets and respond accordingly to changing needs.

NEW DEVELOPMENT - The recent re-establishment of sand mining operations will increase usage of the transport network by heavy vehicles on select routes, leading to accelerated deterioration of road pavements in those areas. For the most part, the adverse impacts will largely be restricted to State Growth roads, however the operation will also involve an increase in mostly unladen trucks on Council-owned routes, with the potential for some accelerated deterioration on those roads. In order to offset these adverse impacts, it is important that suitable developer contributions, including annual haulage levies

(where possible), and infrastructure upgrade works, such as intersection upgrades and pavement widenings, are imposed with planning approvals.

The anticipated reopening of scheelite mining at Grassy is not likely to have a significant impact on existing infrastructure as it is planned for product to be transported to the Port via internal mine roads, and the road owned by TasPorts. Any increase in usage of Council's roads as a result of the mine re-opening will, for the most part, be associated with the travel of workers and support services to and from the mine operation.

Any increase in population and traffic volumes with any new residential subdivisions should easily be accommodated within the current capacity of existing infrastructure/facilities, with no appreciable impact on asset service (life/condition).

However, depending on scale and location, additional stormwater runoff generated by subdivisions may require the upgrade of existing downstream drainage infrastructure. Again, in such cases, it is important that suitable developer contributions, including infrastructure upgrade works, are imposed with planning approvals to avoid costs being shifted to the Community.

TOURISM - Tourism is emerging as a growth industry on King Island**.** Increased usage of the transport network by predominantly light vehicles is likely as tourism and tourist visitation increases, however it is not expected to have a discernible impact on infrastructure asset services given the capacity that currently exists with Council's infrastructure.

Similarly, any impact on Council's community buildings is likely to be negligible, however there may be an increased demand for amenity cleaning services over time.

1.5 Lifecycle Management Plan

An assessment has been made of the current condition profile and "remaining useful lives" of Council's assets in order to estimate the funding requirements to maintain each asset portfolio **at the current standard over the next 10 years**.

Unlike many small councils in Australia, King Island is fortunate that its infrastructure assets are in reasonably good condition, with long remaining lives. As an indication, there are no sealed road pavement renewals predicted for the term of this Plan; a situation that would be rare in local government.

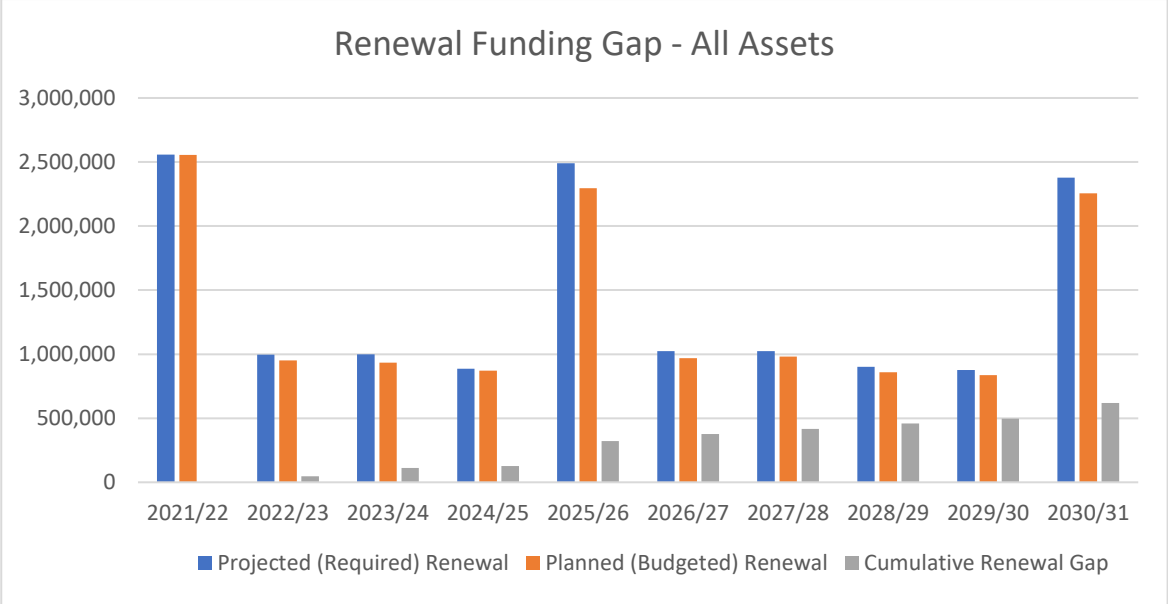
This is the main contributor to Council being able to largely afford the required level of capital renewal funding determined by this Plan. With a **Renewal Funding Ratio of 95.6%**, Council's performance exceeds the 90% benchmark set by the Auditor General.

1.6 Financial Summary

The degree to which Council can fund the works required to maintain and renew its assets is key to determining the sustainability of the asset portfolio and the service it provides.

The best indicator of this is the Renewal Funding Ratio (discussed above) and the **Renewal Funding Gap**.

The Asset Renewal Funding Gap is the difference between the Projected (required) Capital Renewal Expenditure and the Planned (budgeted) Capital Renewal Expenditure. The Projected (required) Capital Renewal Expenditure is identified from the asset registers and modelling. Whereas the Planned (budgeted) Capital Renewal Expenditure is as provided for in the **Long-Term Financial Plan** (LTFP) i.e. the amount Council is able to allocate to capital renewal works.



As indicated in the above graph, Council's capital renewal funding levels are close to meeting the funds required to maintain the target LOS from its assets. The modest cumulative renewal funding gap of $618,674 over 10 years (av $62K pa) is not likely to have a discernable adverse impact on the condition of the assets under this SAMP for the planning period.

However, Council should continue to monitor asset condition over the life of this SAMP and review its strategy in response to any unplanned changes to asset condition or priorities.

2. INTRODUCTION

2.1 Background

This **Strategic Asset Management Plan** (SAMP) communicates the actions required for the responsive management of assets (and the services provided from assets), compliance with regulatory requirements, and funding needed to provide the required levels of service over a 10-year planning period.

The SAMP is to be read in conjunction with the following King Island Council planning documents:

- Council's Asset Management Policy
- Council's Asset Management Strategy
- Council's Stormwater System Management Plan
- King Island Council Integrated 10 Year Strategic and Annual Plan (Strategic Plan)
- 10-Year Financial Management Plan

2.2 Asset Description

The infrastructure and other assets covered by this SAMP are shown in **Table 2.1**. The inventory of each asset category is based on information available in Council's asset registers at the time of preparing this Plan. Their accuracy will improve as asset registers are further reviewed and updated.

Other asset categories such as the Airport and those that individually represent less than 5% of Council's total asset base will be addressed in future strategic asset management plans. These other asset categories include (but are not limited to):

- Parks and Recreation – playgrounds, sporting facilities, park furniture and facilities, and racecourse facilities (excluding buildings)
- Plant and Equipment – mobile plant, vehicles, small plant, office equipment and information technology hardware
- Waste Management – landfill and associated facilities (excluding buildings)
- Foreshore and Marine – wharves, jetties, boat ramps
- Aerodrome - Council's **Airport** assets account for approximately 19% of the total asset portfolio value. This facility is a commercial operation with specific asset management and legislative requirements, and will be covered under a separate asset management plan yet to be developed. The short-term asset management needs, in terms of works to maintain and support the airport's efficient operation, are contained in Council's **Airport Master Plan**.

Table 2.1: Assets covered by this SAMP (as at June 2021)

Asset Category / Sub-category	Quantity	Unit	Replacement Value
Roads and Transportation			
Sealed roads (incl pavement, seal and road formation)	87.6	Km	**$28,779,241** (2020 value)
Unsealed gravel roads (incl pavement and road formation)	343.8	Km	**$20,099,836** (2020 value)
Kerb and gutter	15.7	Km	**$2,682,306** (2020 value)
Footpaths (adjacent to roads)	5.3	Km	**$619,247** (2020 value)
Street furniture (approx.)	350	Item	**$60,250** (2020 value)
Bridges and Drainage			
Bridges and major culverts	35	Item	**$9,598,258**
Rural Drainage - minor culverts	8.97	Km	**$4,213,002**
Urban Drainage - pits	190	Item	**$542,723**
Urban Drainage - pipes	5.38	Km	**$1,622,145**
Buildings			
Residential buildings	3	Item	**$1,254,540**
Community buildings e.g. museum, Senior Citz	5	Item	**$2,600,000**
Administration and town hall building	1	Item	**$3,605,000**
Works depot structures	14	Item	**$1,761,300**
Public amenities	4	Item	**$400,000**
Lighthouse	1	Item	**$2,060,000**
Sports buildings e.g. club houses	2	Item	**$1,400,000**
Racecourse buildings	14	Item	**$2,400,000**

2.3 Key Stakeholders

Key stakeholders in the preparation and implementation of this SAMP include:

- The Community
- Users of services delivered through the assets e.g. motorists, bike riders, sporting groups, tourists, businesses, people with disabilities
- Emergency agencies (Police, Fire, Ambulance, State Emergency Service)
- Managers of the council services delivered through the assets
- Construction/maintenance personnel who build and maintain asset components
- Utility agencies that utilise the assets for their infrastructure (water, sewerage, gas, electricity, telecommunications)
- Council as custodian of the assets
- State and Federal Government that provide support funding to assist with management of the assets, including the Department of State Growth (Transport Services), Tasmania Parks and Wildlife Service, Marine and Safety Tasmania,

2.4 Goals and Objectives of Asset Ownership

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

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

2.5 Core and Advanced Asset Management

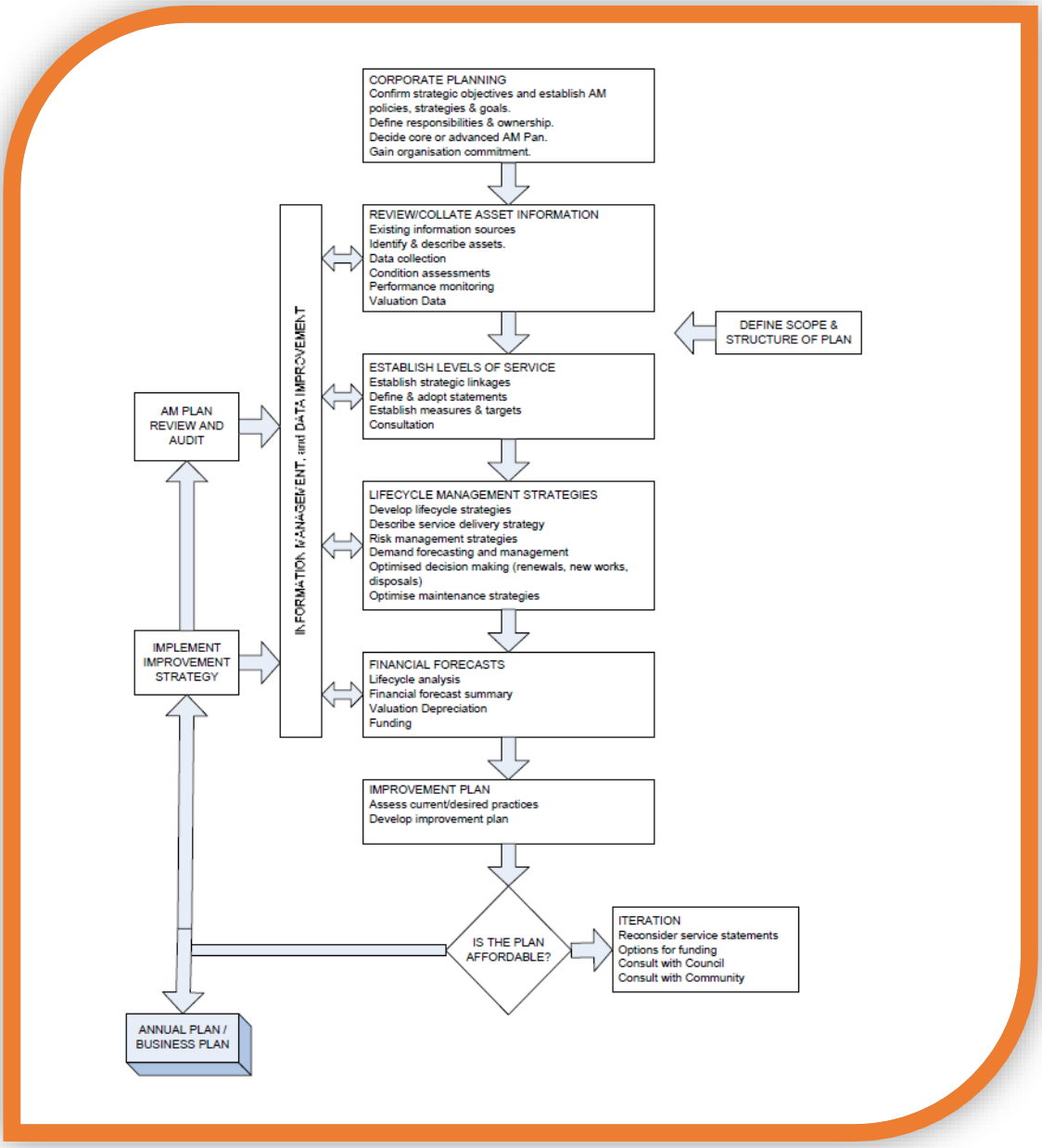
This SAMP is initially prepared as a **'core' asset management plan over a 10 year planning period** in accordance with the International Infrastructure Management Manual[1]. Core asset management is a 'top down' approach where analysis is applied at the system or network level. For some asset categories (e.g. roads and bridges) progress has been made towards more advanced 'bottom up' asset management, whereby detailed asset information has been gathered and analysed for individual assets.

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** – an outline of Council's current practices used to develop this SAMP
- **Monitoring** – how the plan will be monitored to ensure it is meeting Council's objectives
- **Asset management improvement plan** – how Council intends to improve in its maturity of asset management planning practices

The various asset management planning elements and their context within the formulation of this SAMP, are best described in the following process diagram:



3. LEVELS OF SERVICE

Levels of Service (LoS) in the context of this SAMP refers to the means and extent to which, the function and service of each asset category, is delivered to the Community.

It is recognised that understanding the LoS the Community is willing to accept and/or afford, is a critical input to the asset planning process, and as such, the expectations and requirements of our customers (the Community) need to be considered in the formulation of this SAMP.

3.1 Corporate Goals and Strategies

The Community has the opportunity to have input to new asset and renewal projects and maintenance funding levels (and thereby input to the LoS provided) through the annual budget-setting process and through the establishment of the corporate goals and strategies in Council's **Strategic Plan 2022-2032**(Strategic Plan).

This SAMP is prepared under the direction of the King Island Council vision, mission, goals, and strategies as defined and described in Council's **Strategic Plan**.

The Strategic Plan vision is for:

A community proud of King Island's outstanding natural beauty and resources, unique heritage, island lifestyle and economic opportunities.

The Strategic Plan mission is for:

A strong, stable, and sustainable Council representing, serving, and collaborating with our community for the health, safety and wellbeing of our residents and the long-term sustainability of King Island.

This SAMP has been developed to align with this strategic direction.

Strategic Goals and Strategies

The **Strategic Plan** sets the strategies to be achieved in the planning period, aimed at meeting Council's 10-year goals. In terms of its infrastructure assets, Council has set the following **goals and strategies:**

ROADS, BRIDGES and STORMWATER

10-Year Goal: *To ensure Council's local road and pedestrian networks and associated assets are fit-for-purpose and provide a safe and efficient standard for users and the community.*

Strategies:

Service, Maintenance, and Compliance

1.1.1 Continue a program of regular road network and asset condition inspections and preventative maintenance and repairs to road surfaces, bridges, roadside drainage, and vegetation.

1.1.2 Continue a program of improving Council's strategic asset management capability through regular asset condition monitoring and management review, in order to:

• Effectively manage asset and public safety risks and implement suitable control measures within the resources available, and in conjunction with the Department of State Growth.

• Ensure expenditure on asset upgrades, renewal, and preventative maintenance programs is put to best use.

• Support long-term financial planning, asset accounting, and financial reporting requirements.

and

• Maintain asset information, including periodic valuations, to meet compliance requirements in state legislation and submit data returns to the Local Government Division, the State Grants Commission, and the Tasmanian Audit Office.

1.1.3 Continue to investigate and respond to service requests made by the community in a timely manner.

1.1.4 Regularly review and update the long-term asset management plan for the maintenance and upgrading of roads, bridges, drainage, footpaths/walking tracks, street lighting and street furniture.

Planning and Projects

1.1.5 Prioritise allocations of revenue from government grants and other sources in the long-term financial and asset management plans to progressively seal major local gravel roads, improve local roads used by heavy vehicles and upgrade roadside drainage and footpaths.

1.1.6 Negotiate with the State Government to have heavy vehicle registration fees collected on the Island transferred to Council to upgrade local roads used by heavy vehicles.

1.1.7 Negotiate with the State Government to review and rationalise the Island's road network to clarify heavy vehicle routes to be managed by the State Government and local roads to be managed by Council.

1.1.9 Maintain a list of 'shovel-ready' road, bridge, drainage, and footpath/walking track projects suitable for funding under State or Commonwealth Government grant programs.

PROPERTY (BUILDINGS)

10-Year Goal: *To continue to provide buildings, amenities and structures that are needed for Council operations and community use.*

Strategies:

Service, Maintenance, and Compliance

1.5.1 Continue regular building condition inspections and implement preventative maintenance programs.

1.5.2 Maintain cleaning programs to protect the health of users.

1.5.3 Monitor, manage and as required, update building leases.

1.5.4 Maintain clear, consistent, and fair provisions in leases across different properties and tenants.

1.5.5 Set rents and hire fees at levels which promote community use of Council-owned

properties and recognises the financial savings achieved by community groups delivering services and activities, which Council would otherwise provide.

Planning and Projects

1.5.6 Implement the long-term asset and financial management plan for Council's buildings, amenities, and structures.

1.5.7 Prioritise allocation of external grants and other available funds to upgrade existing facilities and, if feasible and sustainable, develop new facilities.

1.5.8 Periodically review Council property holdings to ensure they are fit-for-purpose and efficiently managed.

1.5.9 Maintain a list of 'shovel-ready' projects suitable for funding under State or Commonwealth Government grant programs.

3.2 Legislative Requirements

A key determinant of LoS is the baseline requirement to comply with any **legislative obligation** relating to a particular asset category, most notably, Council's road and transport, and bridge/drainage assets.

Key legislation relevant to this SAMP include the following:

Table 3.2: Legislative Requirements

Legislation	Requirement
Local Government Act 1993	Sets out the 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.
Roads and Jetties Act 1935	Sets out the role, purpose, responsibilities and powers for state roads including local roads, jetties, marine facilities, and aerodromes under council control.
Local Government Highways Act 1982	Gives the Council the power to construct and maintain local highways. Generally all local highways are the responsibility of the Council with the State Government being responsible for State highways.
Urban Drainage Act 2013	Sets out the role, purpose, responsibilities and powers of local governments in providing for stormwater systems in urban areas

3.3 Customer Levels of Service

Service levels are defined in two ways, **customer levels of service** and **technical levels of service**.

Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided.

The Customer levels of service measures used in this SAMP are:

Quality	How good is the service … *what is the condition or quality of the service?*
Function	Is it suitable for its intended purpose …. *Is it the right service?*
Capacity/Utilisation	Is the service over or under used … *do we need more or less of these assets?*

An assessment of Council's asset performance against current and expected customer service levels is detailed in **Table 3.3**. The expected LoS has been estimated based on the resources afforded to asset renewal and maintenance works in Council's **long-term financial plan** (LTFP).

Council's MAGIQ enterprise software application captures and manages the workflows associated with customer requests and complaints. The LoS performance measures outlined in **Table 3.3** will be monitored and reported via the Magiq application.

Table 3.3: Customer Level of Service

Key Measure	Asset Category	LoS Objective	Performance Measure	Current LoS	Expected LoS in 10 years
Quality	**Roads and Transport**	Assets in good condition and well maintained	Number of complaints related to asset condition Community satisfaction surveys	**21** Complaints/Service Requests per annum Percentage of respondents satisfied with assets is TBA. (*Survey yet to be conducted)*	Number of complaints/ service requests maintained or reduced Percentage of respondents satisfied with assets is maintained
	Bridges and Drainage	Assets in good condition and well maintained	Number of complaints related to asset condition Community satisfaction surveys	**2** Complaints/Service Requests per annum Percentage of respondents satisfied with assets is TBA. (*Survey to be conducted)*	Number of complaints/ service requests maintained or reduced Percentage of respondents satisfied with assets is maintained

Key Measure	Asset Category	LoS Objective	Performance Measure	Current LoS	Expected LoS in 10 years
	Buildings	Assets in good condition and well maintained	Number of complaints related to asset condition Community satisfaction surveys	**10** Complaints/Service Requests per annum Percentage of respondents satisfied with assets is TBA. (*Survey to be conducted)*	Number of complaints/ service requests maintained or reduced Percentage of respondents satisfied with assets is maintained
Function	**Roads and Transport**	Good access is provided between journey destinations	Number of complaints related to access issues	**NIL** Complaints/Service Requests per annum	Number of complaints/ service requests maintained
	Bridges and Drainage	**Bridge** assets maintained to design (speed and load capacity) **Drainage** assets are maintained to cater for design flows	Number of bridges with speed or load restriction Number of complaints of localised or nuisance flooding	**1** **NIL** Complaints/Service Requests per annum	Number of complaints/ service requests maintained or reduced
	Buildings	Buildings are fit for purpose and operate as intended	Number of complaints related to building function	**NIL** Complaints/Service Requests per annum	Number of complaints/ service requests maintained

Key Measure	Asset Category	LoS Objective	Performance Measure	Current LoS	Expected LoS in 10 years
Capacity/Utilisation	**Roads and Transport**	Traffic flow is good with minimal delays due to congestion	Number of complaints related to traffic delays	**NIL** Complaints/Service Requests per annum	Number of complaints/ service requests maintained
	Bridges and Drainage	**Bridge** assets support bi-directional traffic flows **Drainage** assets designed to cater for 1in100yr storm flows in flood prone areas	Number of bridges that support the passing of two vehicles (min) % of drainage network designed to cater for 1in100yr storm flows in flood prone areas	**7** To be determined	**8** To be determined
	Buildings	Buildings provide sufficient availability to meet demand	Number of complaints relating to availability of buildings	**NIL** Complaints per annum Percentage of respondents satisfied with assets is TBA. (Survey to be conducted)	Number of complaints/ maintained Percentage of respondents satisfied with assets is maintained

3.4 Technical Levels of Service

Supporting the customer service levels are **technical levels of service**. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance.

Technical levels of service are linked to the activities and annual budgets covering:

- **Operations** – the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc.
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs),
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),
- **Upgrade/New** – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new amenities).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.[2]

Table 3.4 shows the technical levels of service expected to be provided under this SAMP. The 'Desired' position in the table documents the position being recommended as achievable, given the recognised constraints of budget, and physical resources available to Council.

Table 3.4: Technical Levels of Service

Service Attribute	Asset Category	LoS Objective	Performance Measure	Current LoS	Desired LoS for Optimum Lifecycle Cost
Operations	**Roads and Transport**	Transport asset condition is monitored and assessed appropriately	% of road and transport assets inspected and assessed annually	**100%** every 5yrs	**20%** of network inspected and assessed annually (to achieve **100%** every 5yrs).
		Commercial streets are clean	Number of complaints relating to street cleanliness.	Hand sweeping is undertaken as required or on request.	Maintained at current levels
		Roadside vegetation is controlled to	Number of complaints relating to	Roadsides are mown (or otherwise	Maintained at current levels

[2] IPWEA, 2015, IIMM, p 2|28.

Service Attribute	Asset Category	LoS Objective	Performance Measure	Current LoS	Desired LoS for Optimum Lifecycle Cost
		maintain safe sight distances and vehicle clearances	excessive roadside vegetation	treated) **3** times per annum	
	Bridges and Drainage	Bridge and drainage asset condition is monitored and assessed Bridge decks and waterways are cleared following storm events Drainage inlets and pits are cleared following storm events	% of bridge and drainage network inspected and assessed annually Number of complaints relating to blockages on bridge decks and to drainage inlets	**100%** of bridge network inspected and assessed annually. **100%** of drainage network inspected in 2021. **NIL**	Maintained at current levels **20%** of drainage network inspected and assessed annually (to achieve **100%** every 5yrs). Maintained at current levels
	Buildings	Buildings can be used as intended. They are clean, secure, and safe (in terms of condition, fire safety, and accessibility)	Number of complaints relating to the operation of buildings	**NIL**	Maintained at current levels
Maintenance	**Roads and Transport**	Assets are repaired in timely manner	% of total reported defects actioned within set timeframes	**60%**	Maintained at current levels

Service Attribute	Asset Category	LoS Objective	Performance Measure	Current LoS	Desired LoS for Optimum Lifecycle Cost
	Bridges and Drainage	Assets are repaired in timely manner	% of total reported defects actioned within set timeframes	**100%**	Maintained at current levels
	Buildings	Assets are repaired in timely manner	% of total reported defects actioned within set timeframes	**30%**	Maintained at current levels
Renewal	**Roads and Transport**	Transport network assets/components are renewed before becoming unserviceable	Asset condition surveys	Average condition rating: • Sealed **1.4** • Unsealed **1.7** (1=Very Good, 5 = Very Poor)	Average condition rating of network is maintained
	Bridges and Drainage	Bridge and drainage assets/components are renewed before becoming unserviceable	Asset condition surveys	Average condition rating of bridge network is **2** Average condition rating of drainage network is **2.7** (1=Very Good, 5 = Very Poor)	Average condition rating of network is maintained
	Buildings	Building assets/components are renewed before becoming unserviceable	Asset condition surveys	Average condition rating of building network is (yet to be assessed)	TBD

Service Attribute	Asset Category	LoS Objective	Performance Measure	Current LoS	Desired LoS for Optimum Lifecycle Cost
Upgrade/ New	**Roads and Transport**	Transport network meets functional needs of users, and meets industry design standards for formation and geometry	% of network requiring upgrade	TBD	TBD
	Bridges and Drainage	New or upgraded Bridge assets required due to changes in usage (loading, traffic volume). New or upgraded drainage assets required due to climate change adaptation, or to mitigate flooding	Yet to be identified Yet to be identified	TBD TBD	TBD TBD
	Buildings	New or upgraded buildings (by extension or refit) due to change of use or increased demand. Upgrades to buildings required to meet disability access standards	Yet to be identified Yet to be identified	TBD TBD	TBD TBD

It is important to monitor the service levels provided regularly as these will change over time. The current performance is influenced by work efficiencies and technology, and customer priorities and

expectations will change over time. The ongoing review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

4. FUTURE DEMAND

4.1 Demand Drivers

Drivers that may affect future demand upon Council's assets include aspects such as population and demographic changes, community preferences and expectations, environmental factors (such as climate change and sea-level rise), economic factors (such as agriculture, industry, and tourism), legislation, and technological changes.

Of these, the demand drivers considered most appropriate to this SAMP are provided in **Table 4.3**.

4.2 Demand Forecasts

The present position and projections for each demand driver that may impact future service delivery and use of assets **over the 10 year planning period of this SAMP** have been identified and are documented in **Table 4.3**.

4.3 Demand Impact on Assets

An assessment of the expected impact of demand forecasts upon Council's assets and service delivery is also shown in **Table 4.3**.

Table 4.3: Demand Drivers, Projections and Impact on Services

Demand Driver	Present position	Projection	Impact on services
Population	The population of King Island has experienced an 8% decline since the 2005 census. 2005 – *1716* 2010 – *1637* **2016 - *1585***	The attraction of investment is a focus of the Council, and a modest increase in population is expected with the advent of a potential abattoir, and other private developments associated with tourism and mining etc. There is potential for the population to return to 2005 figures in the planning period.	Council's infrastructure assets were constructed (for the most part) at a time when the Island's population was much higher than it is today, and as such was designed to cater for higher populations. The modest increase in projected population (in itself) is not expected to have a discernible impact on asset services.
Demographics	The population of King Island is **aging**, with 47% of residents aged 50 or over, including 22% aged over 65.	As is the case in Australia more broadly, it is expected the aging trend will continue.	Lower proportion of population of working age may increase revenue pressure on Council, impacting the resources available for

Demand Driver	Present position	Projection	Impact on services
			asset maintenance and renewal. Increased demand for disability access to community facilities. Reducing demand on active recreation facilities (not in scope of this SAMP)
Change in expectations	The Community's expectations of Council's asset service delivery has been incrementally increasing over time.	Consistent with Australian society more broadly, the service expectations of the Community is likely to continue to increase.	Increased expectations for expanded and better facilities Increased expectations for safer and more contemporary construction techniques Increased expectations for improved service standards such as response times, intervention levels
Climate change	Effects of climate change in early stages	More frequent and higher intensity rainfall events and minor sea level rise impacts	Accelerated deterioration of road pavements. Capacity of existing drainage infrastructure is exceeded more frequently leading to increasing risk of inundation of properties, and transport interruptions (water over road).
New development	Various new developments proposed	New developments proceed e.g. reopening of sand and tungsten mines, and residential subdivisions	Heavy vehicles associated with the mines will mostly use State Growth roads or TasPort roads, with minimal impact on Council infrastructure. Outside of the immediate residential subdivision, any increase in population

Demand Driver	Present position	Projection	Impact on services
			and traffic volumes can be accommodated within the current capacity of existing infrastructure/facilities, with no appreciable impact on asset service (life/condition). However, depending on scale and location, additional runoff generated by subdivisions may require the upgrade of existing downstream drainage infrastructure.
Increased tourism	Tourism is emerging as a growth industry with two international-standard golf courses established	Tourism levels continue to grow along with support service industries (accommodation, catering, etc)	Increased usage of transport network by predominantly light vehicles is not expected to have a discernible impact on asset services. Negligible impact on community buildings, however there may be an increased demand for amenity cleaning services.

4.4 Demand Management Plan

Demand for new or increased services will be addressed through a combination of managing existing assets, upgrading of existing assets and providing new assets.

Examples of demand management opportunities include (but not limited to):

- Seeking additional grant funding
- Improving processes for maximising developer contributions
- Introducing policies and procedures for haulage levies for heavy vehicle generating development
- Improving decision making for new and upgrade works to minimise financial impact
- Improving asset renewal modelling and analysis
- Improving processes and work practices

- Maximising opportunities from technological change e.g. GIS, asset management systems, plant and equipment, new materials

The recommended **Demand Management Plan** aimed at responding to each of the asset service impacts as assessed, is included in **Table 4.4**.

Table 4.4: Demand Management Plan Summary

Demand Driver	Impact on Services	Demand Management Plan
Population	The modest increase in projected population (in itself) is not expected to have a discernible impact on asset services.	Monitor population numbers over life of SAMP and respond accordingly to any variation to projections.
Demographics	Lower proportion of population of working age will increase revenue pressure on Council, impacting the resources available for asset maintenance and renewal. Increased demand for disability access to community facilities.	Undertake a review of asset maintenance and renewal works practices with the aim of reducing costs and/or improving effectiveness and quality. Future plans for new or upgraded assets include disability access considerations aimed at compliance with the *Disability (Access to Premises – Buildings) Standards 2010.*
Change in expectations	Increased expectations for expanded and better facilities Increased expectations for safer and more contemporary construction techniques. Increased expectations for improved service standards such as response times, intervention levels	Undertake a review of asset maintenance and renewal works practices with the aim of reducing costs and/or improving effectiveness and quality.
Climate change	Accelerated deterioration of road pavements. Capacity of existing drainage infrastructure is exceeded more frequently leading to increasing risk of inundation of properties, and transport interruptions (water over road).	Ongoing road asset condition monitoring and works programming. Future plans for new or upgraded drainage assets incorporate the design and project scope considerations necessary to cater for the adaptation required in response to climate change impacts.
New development	Heavy vehicles associated with the mines will mostly use State Growth roads or TasPort roads,	Planning approvals for major "traffic-generating" developments should consider measures to ensure the

Demand Driver	Impact on Services	Demand Management Plan
	with minimal impact on Council infrastructure. Outside of the immediate residential subdivision, any increase in population and traffic volumes can be accommodated within the current capacity of existing infrastructure/facilities, with no appreciable impact on asset service (life/condition). However, depending on scale and location, additional runoff generated by subdivisions may require the upgrade of existing downstream drainage infrastructure	developments contribute to the cost of any accelerated infrastructure damage that could be attributed to the development. Measures could include the charging of an annual road maintenance levy on a tonne/km basis, upgrade works to intersections and bridges, etc (for example). The civil design and construction quality of private subdivisions are reviewed and monitored to ensure any donated assets meet the required standard, and do not present a maintenance legacy to Council. Planning approvals for private subdivisions consider stormwater runoff impacts on downstream properties and existing drainage infrastructure. Any upgrades are incorporated in approvals either through cash contribution, physical works, or a combination.
Increased tourism	Increased usage of transport network by predominantly light vehicles is not expected to have a discernible impact on asset services. Negligible impact on community buildings, however there may be an increased demand for amenity cleaning services.	Monitor tourism numbers over life of SAMP and respond accordingly to any variation to projections.

4.5 Asset Programs to meet Demand

The future demand assessment has identified there to be a negligible requirement for Council to construct new assets, or to upgrade existing assets as a result of the predicted impacts across the planning period.

However, in terms of new developments such as the potential new abattoir and the reopening of the two scheelite mines near Grassy will both generate heavy vehicle traffic, accelerating the deterioration of Council's road and transport assets on select routes between the facilities and the port.

Given the state of Council's total asset portfolio and the level of funding available to support the required LoS from these assets, it is essential that every effort is made to ensure a '*user pay*'' approach is taken with these developments to limit the risk of any cross subsidy and any potential negative impacts on the balance of the asset portfolio, as a result.

Future demand impacts will be monitored against projections across the planning period, and Asset Programs that assist in meeting changes in demand will be incorporated into future versions of this SAMP.

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the King Island Council plans to manage and operate the assets at the agreed LoS (defined in Section 3) while managing life cycle costs.

5.1 Background Data

5.1.1 Asset Values

The total replacement values of the assets covered by this SAMP are shown in **Table 5.1.1**. More detailed asset value data is provided in **Section 7** of this Plan.

Table 5.1.1 Asset Values

Asset Category	Replacement Value ($)
Roads and Transportation	$52,240,879
Bridges and Drainage	$15,586,529
Buildings	$15,480,840
TOTAL	**$83,308,248**

5.1.2 Asset Age (Remaining Life)

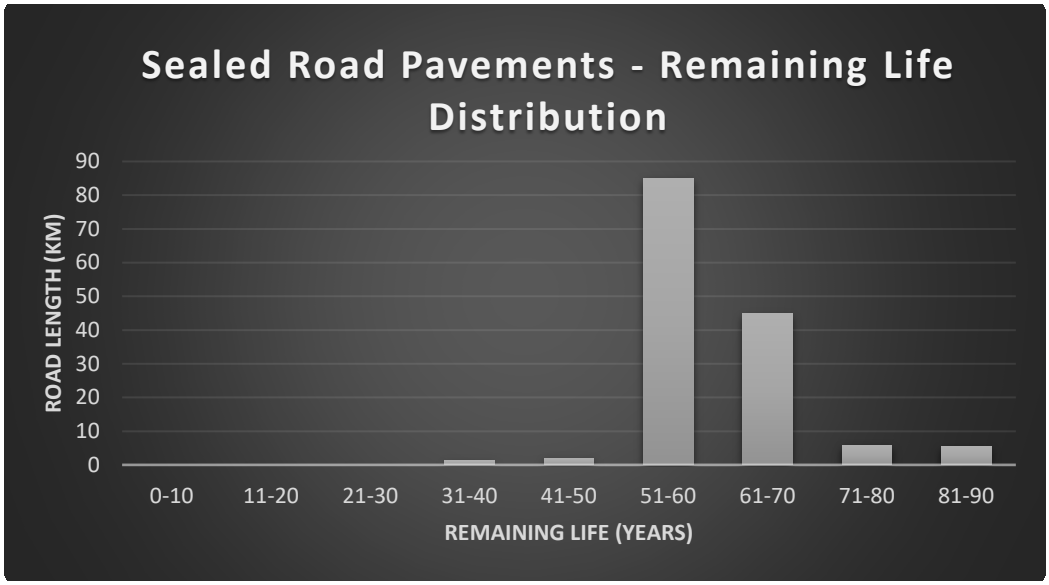
For Bridge and Drainage, and Building assets, Council has reasonably good construction date information. For Road assets, however, the exact age is generally not known with any certainty, however, asset age (in itself) is less relevant in asset management terms, than the estimate of the **remaining life** of assets. Remaining lives are determined as an output of the condition assessment process (see Section 5.1.4 – Asset Condition). The remaining life of assets is key to determining financial depreciation charges and is a major input to asset renewal and long-term financial planning.

For Road, Drainage and Bridge asset categories, the remaining life has been derived directly from the relevant asset management system. In these cases, condition assessments inform the year in which renewal of assets is predicted. For Building assets however, where a formal condition assessment is yet to be undertaken, an indication of **remaining asset lives** is provided by applying the following formula to each asset:

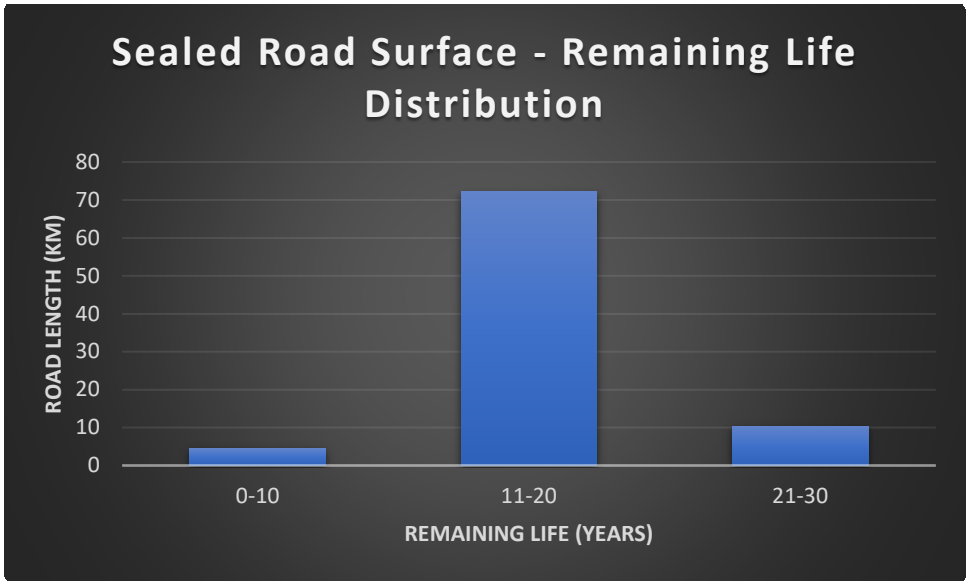
REMAINING LIFE (years) = ***Written Down Value (based on condition/age)***

Annual Depreciation Charge

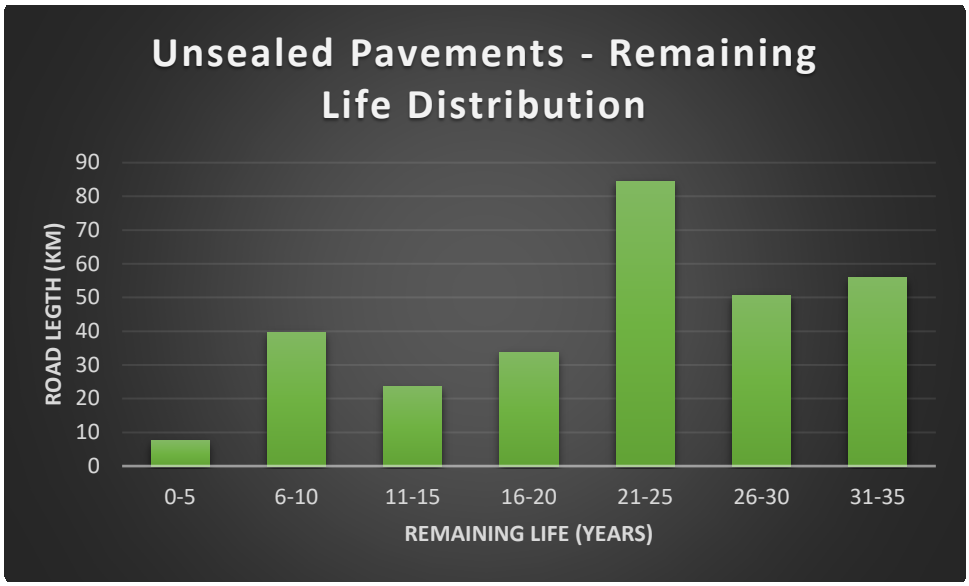
ROADS and TRANSPORTATION – Remaining Life



The condition survey undertaken on Council's road network in 2020 has assessed the **sealed road pavements** to be in good condition with remaining lives extending well beyond 30 years.

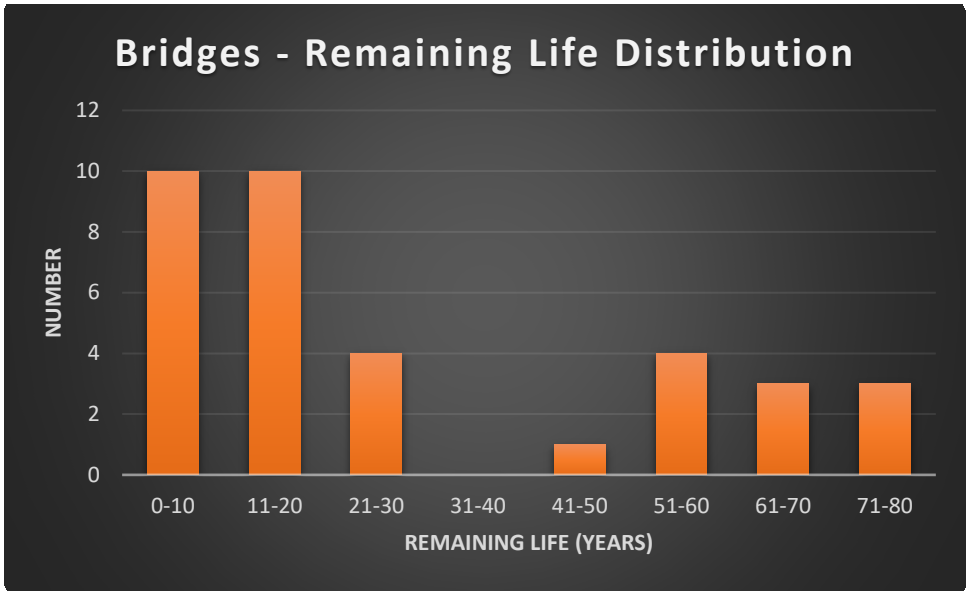


The condition survey undertaken on Council's road network in 2020 has assessed the **sealed road surfaces** to be in good condition with remaining lives typically in the 11-20 year range. Approximately 5km of road surface has been identified for renewal over the next 10 years.



The condition survey undertaken on Council's road network in 2020 has assessed the **unsealed road pavements** to have relatively long remaining lives, however there is approximately 47km of roads that will reach the end of their life over the next 10 years, and provision has been made in the required funding level estimates to undertake annual programs of resheeting these pavements.

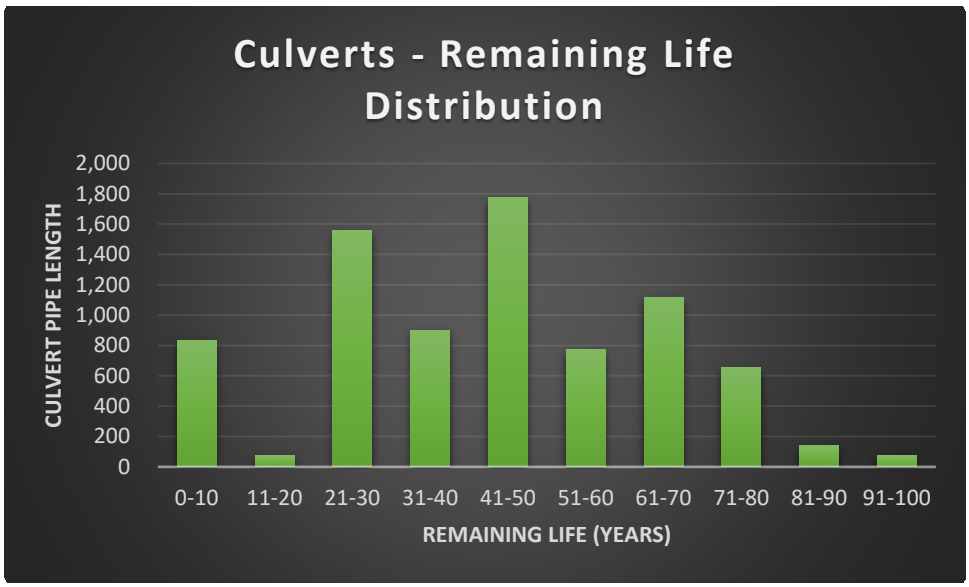
BRIDGES – Remaining Life



Based upon the annual condition assessment and inspections undertaken on Council's **bridge and major culvert assets**, it has been identified that 20 bridges will reach their end of life over the next 20 years.

There are 9 bridges programmed to require either full replacement or replacement of key structural elements over the next 10 years at a total estimated cost of $2.4M.

DRAINAGE – Remaining Life



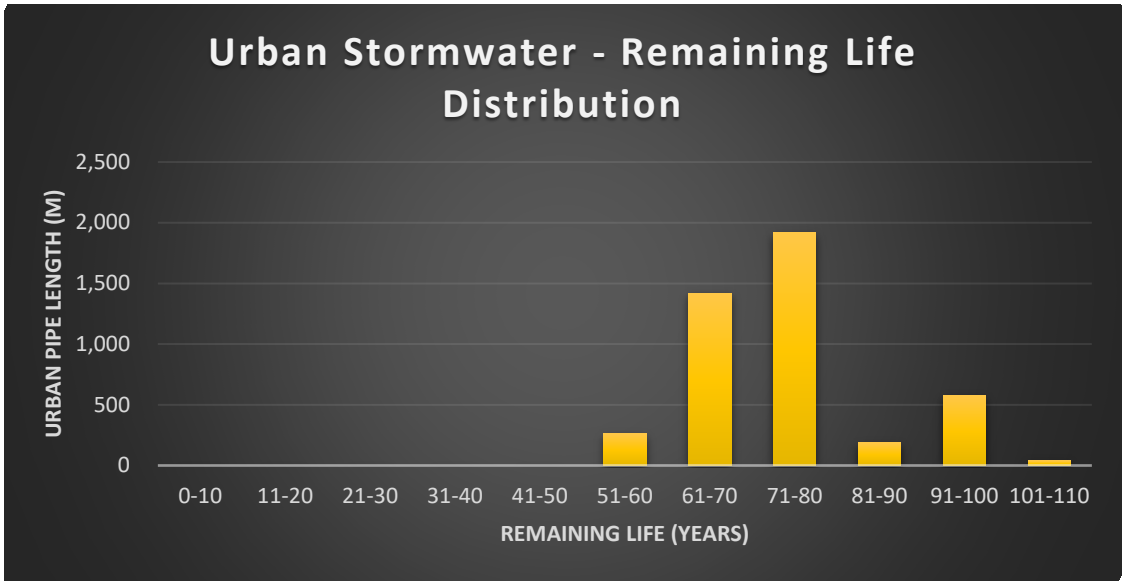
The **Culvert** proportion of Council's drainage assets are located on the rural road network and serve to transfer water flows from one side of the road to the other.

The condition assessment of culverts has determined there to be 103 individual culverts, totalling approximately 800m in length, that will reach their theoretical end of life over the next 10 years. For the most part, these culverts are relatively small (300mm – 600mm diameter typically) and are constructed of galvanized corrugated steel (Armco) or earthenware (EW).

Subsequent to the most recent condition assessment being completed, the Island suffered a number of high-intensity rainfall events, perhaps giving an indication of future events. This rainfall has contributed to a large number of ARMCO and EW pipe culverts failing earlier than expected.

Road culverts are critical infrastructure, and like bridges, any unplanned failure presents a significant risk to motorists, and transport generally.

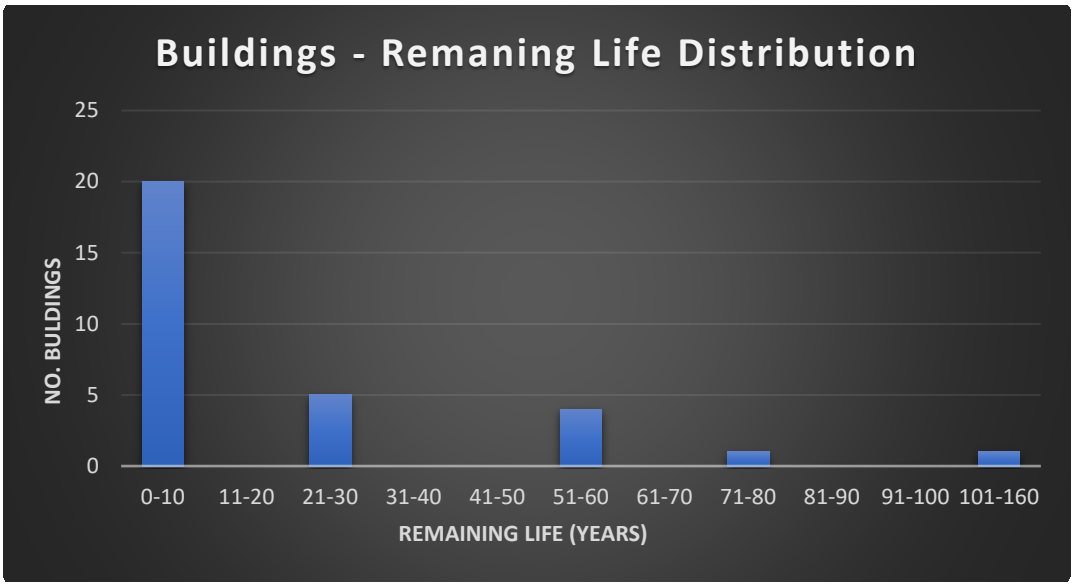
It is proposed to bring the replacement of 90 ARMCO and EW culverts forward and complete them over the next 3 years at an estimated cost of $300,000.



The **urban stormwater** drainage network in Grassy and Currie has a remaining life of between 50 and 110 years. As such, there are no works required to replace pipes that have reached the end of their life, in the term of this SAMP.

That said, it should be noted a significant proportion of the system within Currie is constructed of pipes likely to contain asbestos. These pipes are also very small in diameter and therefore capacity – ranging typically between 100 and 300mm. Council's **Stormwater System Management Plan** has assessed the risks associated with both the asbestos pipes and the capacity of the system and has identified the actions to be taken to mitigate these risks.

BUILDINGS – Remaining Life



The data used to prepare the above graph has not been derived from any formal condition assessment, and on that basis should not be relied upon to draw any conclusions. A physical assessment of Council's building inventory was planned for 2021, however the impacts of the COVID19 pandemic prevented access to the Island in time for inclusion of the data in this SAMP.

An action has been included in **Section 8.2 – Improvement Plan** to address the knowledge gap in relation to the Building Portfolio, the results of which will be included in a future version of this SAMP.

5.1.3 Asset condition

Asset condition is a measure of the functional health of an asset and is a key parameter in determining remaining useful life (see Section 5.1.2 – Asset Age). It is used to predict how long it will be before an asset needs to be repaired, renewed, or replaced. Asset condition is also an indicator of how well an asset is able to perform its intended function.

The condition of assets is assessed and monitored as follows:

- **Roads and Transportation** – asset condition is assessed by visual inspection every five years (to meet asset revaluation requirements), with the most recent inspection undertaken in 2020. The data obtained is an input to the Moloney Asset Management System (MAMS) which is used to model assets for valuation, budgeting, and renewal program development.

- **Drainage –** this category underwent a condition assessment in June 2021. Due to the practical difficulties associated with accessing the network, a visual inspection of representative samples of assets by age groupings was undertaken, with the results applied to the balance of the network. The condition and inventory data is entered into the MAMS which is used to model assets for valuation, budgeting, and renewal program development.
- **Bridges –** asset inspections and condition surveys are conducted annually by qualified consultants - AusSpan. The condition and inventory data is entered into the AusSpan Total Bridge Management System which is used to model assets for valuation, budgeting, and renewal program development.
- **Buildings -** A physical assessment of Council's building inventory was planned for 2021, however the impacts of the COVID19 pandemic prevented travel to the Island in time for inclusion of the data in this SAMP. Given the relatively small scale and number of building assets in Council's portfolio, condition and inventory data is maintained in a MS Excel file, that is used for asset valuation, budgeting and renewal program development.

Condition Grading

For the asset categories under this SAMP, **asset condition** is measured using a **5-point grading system**[3] as detailed in **Table 5.1.3.1**.

NOTE: the MAMS for road and drainage assets uses a 10-point grading system. For ease of comparison and for the purposes of this SAMP, the 10-point grading system used by the MAMS for road and drainage assets has been mapped to a 5-point grading system.

Table 5.1.3.1: Asset Condition Grading System – Roads and Transport, Bridges and Drainage, and Buildings

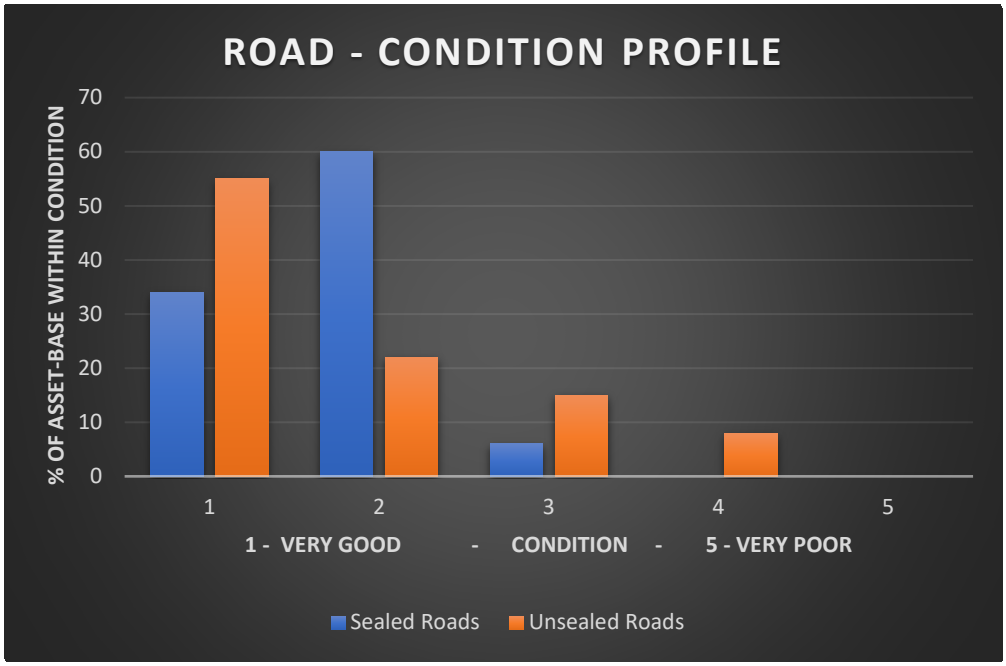
Condition Grading	Description of Condition
1	**Very Good**: *only planned maintenance required*
2	**Good**: *minor maintenance required plus planned maintenance*
3	**Fair**: *significant maintenance required*
4	**Poor**: *significant renewal/rehabilitation required*
5	**Very Poor**: *physically unsound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

[3] IPWEA, 2015, IIMM, Sec 2.5.4, p 2|80.

Asset Condition Profiles

The **condition profile** of Council's assets that have been assessed are shown below in **Figures 5.1.3.1, 5.1.3.2, 5.1.3.3,** and **5.1.3.4.** (below):

Figure 5.1.3.1 - Asset Condition Profile – Roads and Transportation

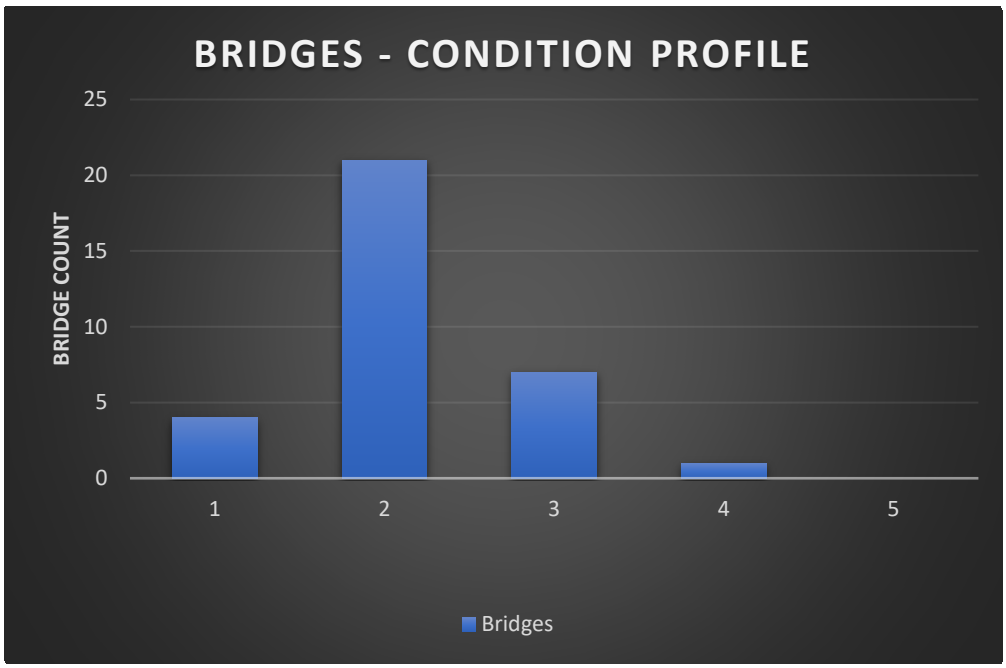


Commentary:

Sealed Roads – with an average condition score of **1.4**, Council's sealed road network is assessed as being **very good** to **good.** When this result is benchmarked against the 72 councils that participate in the MAMS, it is found to be **much better** than the average.

Unsealed Roads - with an average condition score of **1.7**, Council's unsealed road network is assessed as being **very good** to **good.** When this result is benchmarked against the 72 councils that participate in the MAMS, it is found to be **close to** the average. It should be noted that the condition of unsealed roads at any given time can be highly variable depending on the weather conditions at the time of the assessment. Unsealed pavements are highly susceptible to wet conditions.

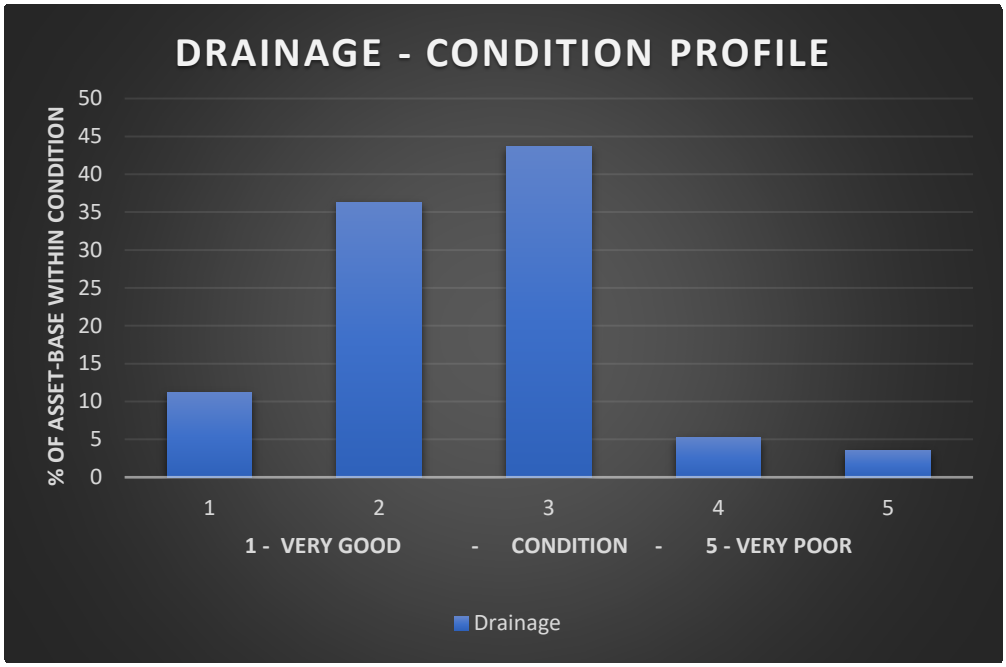
Figure 5.1.3.2 - Asset Condition Profile – Bridges and Major Culverts



Commentary:

With an average condition score of **2,** Council's bridge and major culvert network is assessed as being **good**. Council is fortunate to have a bridge inventory of predominantly concrete construction, with long lives and requiring minimal maintenance when compared to equivalent timber structures.

Figure 5.1.3.3 - Asset Condition Profile – Drainage



Commentary:

With an average condition score of **2.7,** Council's drainage network is assessed as being **good** to **fair**.

For the most part, the network remains highly serviceable. However, as discussed in **Section 5.1.2 – Asset Age**, there is approximately 3.5% of the drainage network in very poor condition, and have

recently started failing prematurely, and will need to be replaced over the next 10 years. These culverts are mostly of galvanised corrugated steel (ARMCO) construction and are suffering corrosion leading to failure.

Figure 5.1.3.4 - Asset Condition Profile – Buildings

See comments at **Section 5.1.2 – Asset Age**. Building condition to be collected and incorporated in future versions of this SAMP.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity. For road and drainage assets, these activities could include: cleaning, street sweeping, mowing, utilities costs and street lighting, while for building assets, these activities could include cleaning, grounds maintenance, utilities (power, water, gas), security, etc.

Maintenance is the regular on-going work that is necessary to keep assets operating safely, including instances where portions of the asset fail and need immediate repair to make the asset operational again, e.g. road patching. Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating.

Maintenance includes reactive, and planned maintenance work activities as described further below:

- 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. The activities include inspection, condition assessment, works prioritizing and scheduling, actioning the work and reporting what was done. These processes are not currently undertaken in a formal manner however it is part of our ongoing improvement plan to provide a focus on this.

Future operating and maintenance expenditure as identified in the LTFP is shown in **Table 5.2**. Note that all costs are shown in current 2021 dollar values (i.e. real values).

Table 5.2: Operations and Maintenance Expenditure Trends

Year	Operations/Maintenance Budget
2021/22	$2,071,314
2022/23	$2,071,314
2023/24	$2,071,314
2024/25	$2,071,314
2025/26	$2,071,314
2026/27	$2,071,314
2027/28	$2,071,314
2028/29	$2,071,314
2029/30	$2,071,314
2030/31	$2,071,314
Total	**$20,713,140**

Operations and Maintenance expenditure levels are considered to be adequate to meet projected service levels. Where expenditure levels are such that they may result in a lesser level of service, the service consequences and service risks have been identified and highlighted in this SAMP.

Operations and Maintenance is funded from the operating budget where available.

5.2.1 Maintenance Targets and Programs

5.2.1.1 Roads and Transport

For the purpose of setting maintenance targets and programs the roads and footpath assets are grouped by functional hierarchy or classification as provided in **Appendix B – Roads and Footpaths Classifications**.

Appendix C provides **road maintenance targets** for key maintenance activities. Included are details of the activities, targeted intervention levels and response times for asset maintenance. The maintenance targets across the road network are based on relevant risk factors, having regard to the functional hierarchy and the volume and nature of road usage.

Appendix D provides **footpath maintenance targets**. Council has a responsibility to keep its footpaths in as safe a condition its resources reasonably allow. The maintenance targets provide an indication of potential defects and appropriate response to any defects recognised.

Maintenance needs that do not meet the intervention levels defined in **Appendix C and Appendix D** are attended to by crews as part of the **Routine Maintenance Program** as provided in **Appendix G**. The extent of the works undertaken, and the activities performed under the **Routine Maintenance Program** is limited to the available maintenance budget in any given year. Priority is given to those works or defects that meet or exceed the intervention levels set in **Appendix C and D.**

Typical work activities undertaken on Road and Transport assets under the **Routine Maintenance Program** include:

- Sealed road patching
- Gravel road potholing / grading
- Drainage culvert clearing
- Guidepost maintenance
- Signs maintenance
- Tree trimming
- Weed control

Other maintenance and minor works are to be addressed through separate programs due to differing resourcing and scheduling requirements. These include:

- Road shoulder grading /re-sheeting/longitudinal (table drain) clearing
- Roadside mowing and slashing
- Road dig-outs (heavy patching)
- Street sweeping
- Footpath and kerb and gutter repairs
- Guardrail repairs

- Road and carparking line-marking re-paint
- Town centre care (e.g. footpath cleaning)

5.2.1.2 Bridges and Drainage

For the purpose of setting maintenance targets and programs the **bridge and drainage** assets are grouped by the same functional hierarchy or classification as the road on which they are located as provided in **Appendix B – Roads and Footpaths Classifications**.

Appendix E provides **bridge and drainage maintenance targets** for key maintenance activities. Included are details of the activities, targeted intervention levels and response times for asset maintenance. The maintenance targets across the bridge and drainage network are based on relevant risk factors, having regard to the functional hierarchy and the volume and nature of usage of the asset.

Maintenance needs that do not meet the intervention levels defined in **Appendix E** are attended to by crews as part of the **Routine Maintenance Program** as provided in **Appendix G** for drainage assets. The **Annual Maintenance Program** for specific **bridge assets** is determined from recommendations made during annual condition assessments.

The extent of the works undertaken, and the activities performed under the **Routine Maintenance Program** is limited to the available maintenance budget in any given year. Priority is given to those works or defects that meet or exceed the intervention levels set in **Appendix E.**

Typical work activities undertaken on drainage assets under the **Routine Maintenance Program** include:

- Mowing/clearing open earth channels/drains
- Clearing outlets and inlet structures

5.2.1.3 Buildings

For the purpose of setting maintenance targets and programs, **building assets** are classified as follows:

Operational – Major – highly utilised operational buildings that support critical operations of Council including: Town Hall and Administration, and Works Depot Buildings.

Operational – Minor – moderately utilised operational buildings supporting functions that can be either suspended or relocated for a short period including: Waste and Quarry buildings.

Community – Major – community buildings that deliver a specific service that could not practically be relocated at short notice, including: KIRDO, museum.

Community – Minor – community buildings that are only used occasionally or infrequently, and alternative facilities are available including: amenities.

Commercial – leased buildings for a commercial purpose.

Residential – Council-owned residential buildings that are permanently occupied.

Recreational – Sporting and recreational buildings that do not perform a critical function.

Appendix F provides **building maintenance targets** for key maintenance activities. Included are details of the activities, targeted intervention levels and response times for building asset maintenance. The maintenance targets across the building portfolio are based on relevant risk factors, having regard to the functional hierarchy (classification) and the volume and nature of usage of the asset.

5.3 Capital Renewal Plan

Capital renewal expenditure is major work that 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 considered to be an upgrade/expansion or new work expenditure that may result in additional future operations and maintenance costs. That said, upgrade or new works that offer a return on investment (ROI) can act to reduce operational costs, such as the installation of solar generators, reducing electricity charges.

Assets requiring renewal may be identified from one of three methods:

- **Method 1** uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- **Method 2** uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- **Method 3** relies on regular asset condition inspection and assessment to identify those assets (or asset components) that have reached, or are approaching the intervention level for renewal.

Method 1 *Asset Register Data* is used for capital renewal programming for **Drainage** assets.

Method 2 *Condition assessment and modelling* is used for **Road and Transportation, and Bridge** asset categories . Note: these systems do not support predictive condition modelling. There is no capacity to perform funding scenario modelling.

Method 3 *Condition Assessment* is used for capital renewal programming for **Building** assets.

Capital renewal projects are identified principally through the following systems:

- Moloney Asset Management System for roads, transportation and drainage assets
- AusSpan Bridge Management System for bridges and large culverts
- Microsoft workbooks for building assets

Proposed candidate works are also inspected to verify accuracy of remaining life estimate and to develop a preliminary renewal estimate. These projects are supplemented by additional information from several sources including inspections and customer requests. Verified proposals are ranked by priority and available funds and scheduled in future works programs.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. roughness of a road).[4]

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

- Have a high consequence of failure

[4] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

- Have high use and subsequent impact on users would be greatest
- Have a condition that presents an unacceptable risk to asset users
- Have the highest average age relative to their expected lives
- Are identified in the SAMP as key cost factors
- Have high operational or maintenance costs, or
- Have replacement with a modern equivalent asset that would provide the equivalent service at a saving.[5]

Ranking criteria to determine priority of identified renewal proposals will be identified in future versions of this SAMP and detailed in **Table 5.3.1**.

Table 5.3.1: Renewal Priority Ranking Criteria

Criteria	Weighting
Not yet available	To be provided in future revisions of this SAMP

5.3.2 Projected capital renewal expenditure

Projected capital renewal expenditures are the required expenditures identified from the asset registers and modelling. They are the levels of expenditure needed to renew the assets based on projections of age, condition and other factors.

For this SAMP, projected capital renewal programs have been developed for the asset categories that have been condition assessed, which makes up most of the Council's asset value. The programs are:

- Roads and Transportation Renewal
    - Footpath Replacement
    - K&G Replacement
    - Sealed Pavement Replacement
    - Sealed Surface Reseal
    - Gravel Road Resheet
- Bridges and Major Culverts Renewal
- Drainage System Renewal
- Building Renewal

[5] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

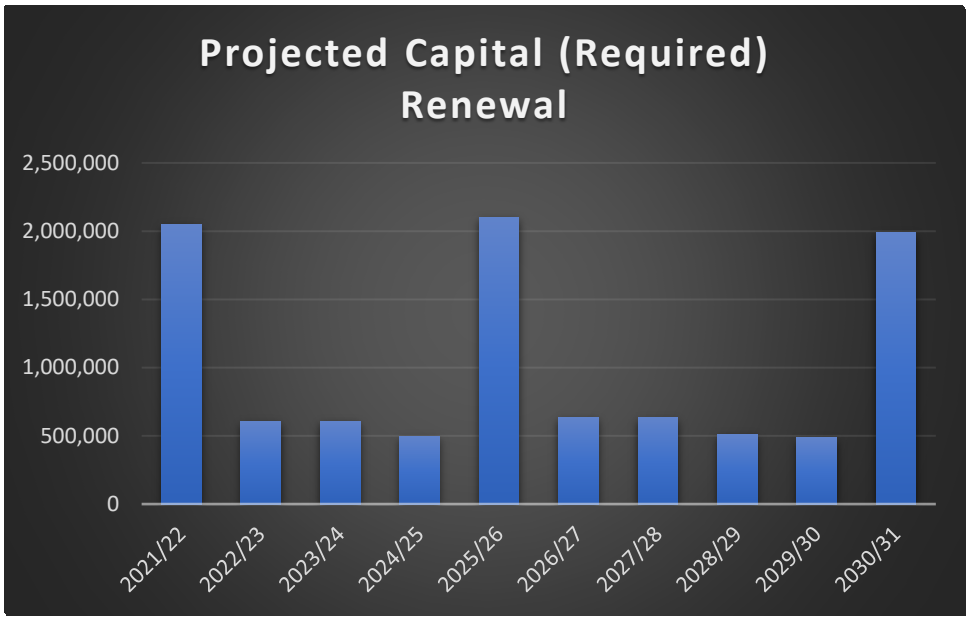
A number of assumptions have been made in developing the renewal programs as summarised below:

- Roads and Transportation, and Drainage Renewal Programs are based on the Moloney Asset Management System report 2020.
- For Footpaths, K&G and Sealed Pavement Replacement Programs, assets with condition ratings 4 and higher have been included. Minor repairs are assumed to be covered under maintenance.
- For Sealed Surface Reseal Programs, roads are assumed to be resealed every 27.5 years on average. Council is able to achieve very long lives for its sealed road surfaces, compared to other road authorities. This is attributed to the very low traffic volumes on the Island, including low numbers of heavy vehicles, and the use of a comparatively large sealing aggregate that allows for high bitumen spray rates. The climate on the Island also appears to reduce the rate of bitumen oxidisation – leading to longer seal life.
- For Gravel Road Resheet Programs, roads are assumed to be resheeted every 32 years on average, depending upon the road category. Whilst on the surface, these Resheet intervals seem extraordinarily long, they are based on observed performance, attributed to the very low traffic volumes, including low numbers of heavy vehicles, and the high quality of the natural gravels on the island.
- Bridge and Major Culverts Renewal Programs are based on the AusSpan Bridge Maintenance System report 2020.
- Building Renewal Programs are based on visual inspection and condition assessment. The next assessment is planned for 21/22.

The Projected Capital Renewal Expenditures for the next 10 years are shown in **Figure 5.3.2**. These are based on the abovementioned renewal programs. Note: all amounts are shown in current (real) dollars.

The 10 Year Projected Capital Renewal Programs are provided at **APPENDIX I.**

Fig 5.3.2: Projected Capital Renewal Expenditure



Projected asset renewals over the planning period will peak and trough, usually due to similar asset construction dates and asset conditions.

The larger numbers of renewals seen in years 1, 5, and 10 are due to road resurfacing works in those years. For reasons of logistics and cost efficiency, it is more practical to establish bitumen sealing contractors for large programs of work, rather than quite small programs each and every year.

Deferred renewals, i.e. those assets identified for renewal and not able to be funded under the LTFP are to be considered in the risk analysis process in the **risk management plan**. This is further discussed in **Section 6**.

A comparison of Projected Capital Renewal Expenditure (the funds needed to sustain Council's assets to the desired standard) versus the Planned Capital Renewal Budget (the funds Council can afford to apply to asset renewal) is discussed in **Section 7.**

5.4 Creation/Acquisition/Upgrade Plan

New works are those that create a new asset that did not previously exist, or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired or 'donated' at no cost, such as those relating to new development (subdivisions, etc.). These additional assets are considered in **Section 4.4.**

5.4.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programs. Formal priority ranking criteria will be included in future revisions of this SAMP and included in **Table 5.4.1** below.

Table 5.4.1: New Assets Priority Ranking Criteria

Criteria	Weighting
Not yet available	To be provided in future revisions of this SAMP

5.4.2 Projected capital upgrade/new asset expenditure

Projected capital upgrade/new asset expenditures are summarised in **Figure 5.4.2**. All amounts are shown in real values.

Examples of works include:

- Sealing of gravel roads

- Upgrade of existing roads e.g. through realignment and widening
- Installation of new pathways and kerb and gutter
- Replacement of timber bridges with concrete bridges
- Upgrade of buildings to provide disability access

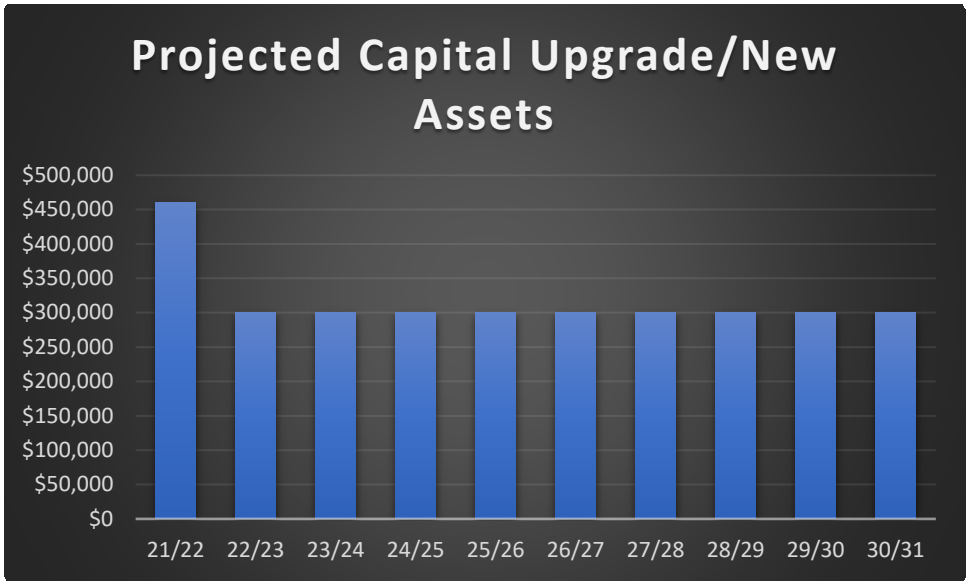
At this time, the only capital upgrade works identified relate to Council's desire to extend its sealed road network by constructing and sealing gravel roads ($300K pa). Over the planning period, this will reduce the length of the gravel road inventory by some 30km, with a corresponding increase in the sealed road network. This will not have a material impact on renewal programs or required funding levels in the short-medium term, though benefits in reduced maintenance costs will likely come in the long-term (beyond this planning period).

Expenditure on capital upgrade/new assets will be accommodated in the LTFP but only to the extent of the available funds.

Future versions of this SAMP will identify assets requiring upgrade to meet current standards of design, service, or function, and will include (amongst others):

- Roads of substandard width or alignment
- Road Guardrail, guideposts, signage not meeting current standards
- Drainage elements of substandard capacity
- Buildings and building elements not meeting the requirements of the Building Code of Australia (fire/exit, access systems etc.).

Figure 5.4.2: Projected Capital Upgrade/New Asset Expenditure



5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets under this SAMP identified for possible decommissioning and disposal are shown in **Table 5.5**, together with estimated annual savings from not having to fund operations and maintenance of the assets.

These assets will be further investigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Any costs or revenue gained from asset disposals is accommodated in the LTFP and Council's financial accounts.

Table 5.5: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Expenditure	Operations & Maintenance Annual Savings
Racecourse Amenities	**Portable ablutions building to be brought to site on Race days** (Shared between Grassy Oval and Racecourse)	**21/22**	**TBD**	**$0** Cost of transporting ablutions fully offsets any recurrent saving. Savings of est $100K in avoided capital cost to replace building

6. RISK MANAGEMENT PLAN

The purpose of infrastructure risk management is to document the results and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2009 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2009 as: 'coordinated activities to direct and control with regard to risk'[6].

An assessment of risks[7] associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial shock'. 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.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Similarly, critical failure modes are those which have the highest consequences. By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

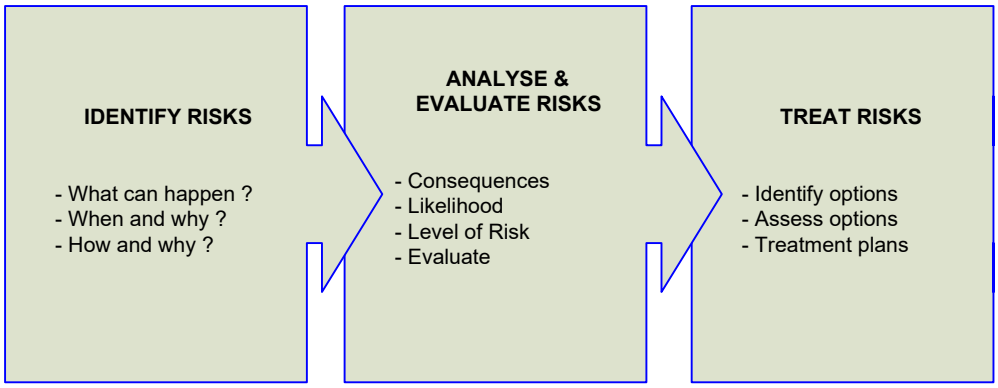
A list of critical assets, their prospective failure modes and required operations and maintenance activities will be detailed in future versions of this SAMP.

6.2 Risk Assessment

The risk management process is shown in **Figure 6.2** below.

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the Community against unacceptable risks. The process is based on the fundamentals of the ISO risk assessment standard ISO 31000:2009.

Figure 6.2: Risk Management Process – Abridged



[6] ISO 31000:2009, p 2

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.

An assessment of risks associated with service delivery from infrastructure assets has identified the critical risks that will result in significant loss, 'financial shock 'or a reduction in service.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings. The residual risk and treatment cost after the selected treatment plan is implemented is shown in **Table 6.2**. These risks and costs are reported to management and other stakeholders including community.

Details of identified risks are shown in **Appendix H**.

Table 6.2: Critical Risks and Treatment Plan

Service or Asset at Risk	What Can Happen	Risk Rating	Risk Treatment Plan	Residual Risk*
Road network	Asset condition deteriorates contributing to road accidents	High	Ensure adequate funding, prioritisation and programming for road asset renewals and maintenance	Low
Road network	Increase in heavy vehicles causing road damage and safety hazards	High	Review heavy vehicle routes and restrictions Review heavy vehicle levies for new development	Medium
Drainage network	Flooding of roads causing safety hazards Flooding impacting properties	High	Review adequacy of drainage and inspection processes for known flood spots Undertake regular inspections and identified issues rectified Refer to Council's Stormwater System Management Plan for mitigation plan	Low
Footpath network	Asset condition deteriorates creating trip hazards	High	Undertake regular inspections and identified issues rectified Ensure adequate funding, prioritisation and programming for asset renewals and maintenance	Low
Bridges	Structural failure leading to bridge/major culvert collapse	Very High	Annual bridge condition assessment. Bridge Renewal Programs fully funded and delivered	Low
Bridges	Structural failure leading to imposition of load/speed restriction	High	Annual bridge condition assessment. Bridge Renewal Programs fully funded and delivered	Low

Service or Asset at Risk	What Can Happen	Risk Rating	Risk Treatment Plan	Residual Risk*
Buildings	Structural or other building component failure leading to safety hazard and building closure	High	Periodic building condition assessments. Building Renewal Programs fully funded and delivered	Low

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

6.3 Service and Risk Trade-Offs

The decisions made in adopting this SAMP are based on the objective to achieve the optimum benefits from the available resources.

6.3.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years due to the limitations on funding and other delivery resources. These include:

Roads and Transportation

- Upgrade all roadside guardrails to current standard (*AS/NZS 3845:1999 – Road safety barrier systems)*
- Upgrade all footpaths and kerb crossings to comply with disability access standards

Drainage

- Upgrade key drainage system elements to cater for 1:100 year storm flows

Bridges and Major Culverts

- Upgrade of low and mid-level bridge and major culvert structures to a "flood-free' standard

Buildings

- Upgrade all buildings to fully comply with the *Disability (Access to Premises – Buildings) Standards 2010*

6.3.2 Service trade-off

Operations and maintenance activities and capital projects that cannot be undertaken will maintain or create service consequences for users. These include:

- Older type guardrails may not protect motor vehicle occupants in the event of impact
- Buildings and pedestrian facilities may not be fully accessible to all members of the Community
- Access to destinations during storm/flooding events may be restricted or interrupted due to low-level bridge/culvert structures
- Properties and access to destinations may be impacted during storm/flooding events that exceed drainage capacity

6.3.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may maintain or create risk consequences. These include:

- Guardrail non-compliance may increase the severity of injury sustained by motor vehicle occupants
- Increased public safety risks due to deteriorating asset condition (roads, footpaths, bridges and buildings)
- Increased risk to life and property due to flooding impacts

These risks are considered when setting work priorities within planned expenditures.

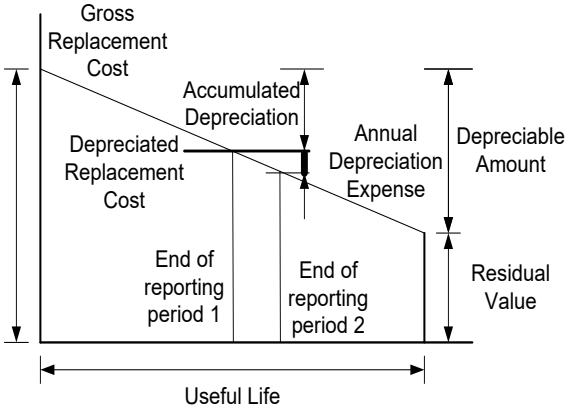
7. FINANCIAL SUMMARY

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

7.1 Financial Statements and Projections

7.1.1 Asset valuations

Under the accounting standards Council is required to periodically revalue its assets. A new infrastructure asset is initially valued based on its initial cost. At the end of each year the asset value is adjusted for depreciation expenses. At specified periods the asset's replacement cost is determined by a variety of methods including the actual unit rates derived from past works, industry expertise, and market rates. The asset value in the financial statements is then adjusted based on the new replacement cost. For roads and drainage assets, The Moloney Asset Management System and for bridge and major culvert assets, the AusSpan Asset Management System provide functionality for revaluing the assets. As discussed in **Section 5.1.2 – Asset Age** the formal revaluation of building assets will be undertaken and applied to the relevant Microsoft Spreadsheet asset register.



Council uses the "straight line" method for accounting for the depreciation, or consumption of its assets.

The following calculations are applied to derive the various accounting values:

- **GROSS REPLACEMENT COST** = the estimated cost to replace an asset with the new equivalent.
- **ANNUAL DEPRECIATION** = Depreciable amount / Useful life
- **ACCUMULATED DEPRECIATION** = Sum of annual depreciation charges since asset acquisition.
- **DEPRECIATED REPLACEMENT COST (**Referred to as Written Down Value – WDV elsewhere in this document) = Gross Replacement Cost – Accumulated Depreciation

The best available estimate of the accounting value of assets included in this SAMP are shown below.

- **Gross Replacement Cost** **$83,308,248**
- **Annual Depreciation** **$1,131,286**
- **Accumulated Depreciation** **$31,857,766**
- **Depreciated Replacement Cost**[8] **$51,450,480**

7.1.2 Projected vs Planned Renewal Capital Comparison

As discussed in **Section 5,** Projected Renewal Capital Expenditure is the funds estimated to be required to renew those assets that have reached (or will reach) a condition where intervention is

[8] Also reported as Written Down Value, Carrying or Net Book Value.

required. These expenditure requirements are estimated through condition assessment and estimating remaining asset lives.

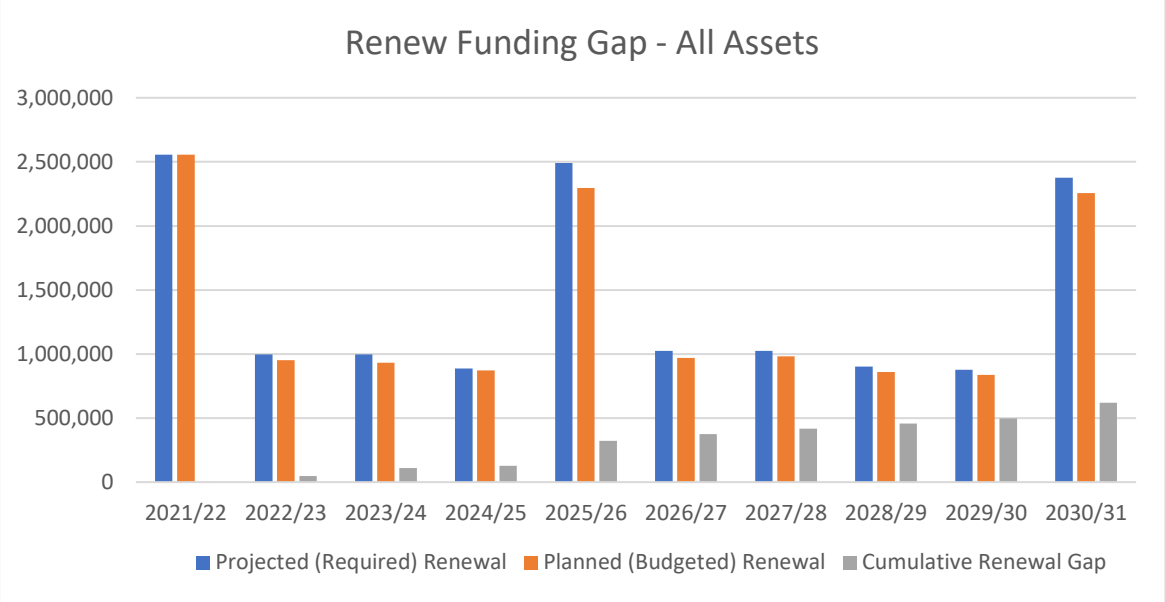
Against the Projected Renewal Capital Expenditure is the amount of funding Council has at its disposal to spend on renewing its assets. This is the Planned Renewal Capital Expenditures as identified within Council's LTFP.

Table 7.1.2 provides the projected and planned expenditures for the next 10 years, and this is presented graphically in **Figure 7.1.2**. Any deficit in planned expenditure vs the projected expenditure is not ideal as it indicates a reduction in service delivery over time. Where such a deficit exists, it is termed the **Asset Renewal Funding Gap** and is further discussed in **Section 7.1.4**. Figures are in 2021/22 real values.

Table 7.1.2 – Projected vs Planned – All Assets

Year	Projected (Required) Renewal	Planned (Budgeted) Renewal	Renewal Funding Gap	Cumulative Renewal Gap	Renewal Funding Ratio (%)
2021/22	2,587,134	2,586,000	1,135	1,135	
2022/23	997,287	952,000	45,287	46,422	
2023/24	997,862	933,000	64,862	111,284	
2024/25	886,961	871,000	15,961	127,244	
2025/26	2,490,256	2,296,000	194,256	321,500	
2026/27	1,024,266	970,000	54,266	375,766	
2027/28	1,023,297	982,000	41,297	417,062	
2028/29	901,316	860,000	41,316	458,378	
2029/30	876,200	837,000	39,200	497,579	
2030/31	2,377,096	2,256,000	121,096	618,674	
Total	**14,161,674**	**13,543,000**	**618,674**		**95.6%**

Figure 7.1.2 - Projected vs Planned – All Assets



7.1.3 Asset Renewal Funding Gap

The Asset Renewal Funding Gap is the difference between the Projected (required) Capital Renewal Expenditure and the Planned (budgeted) Capital Renewal Expenditure. The Projected (required) Capital Renewal Expenditure is identified from the asset registers and modelling. Whereas the Planned (budgeted) Capital Renewal Expenditure is as provided for in the LTFP i.e. the amount Council is able to allocate to capital renewal works.

As covered previously the Projected (required) asset renewal expenditures are based on formal condition assessments and the following renewal programs, which make up most of the Council's asset value:

- Roads and Transportation Renewal Program
- Footpaths, K&G and Sealed Pavement Replacement Program
- Sealed Surface Reseal Program
- Gravel Road Re-sheet Program
- Bridge and Major Culverts Renewal Program
- Building Renewal Program (to be developed)

Copies of the renewal programs are at **Appendix I – 10 Year Capital Renewal Programs.**

For the asset categories where renewal programs have not yet been developed (outside the scope of this SAMP), the Projected Capital Renewal Expenditure is assumed to equal the Planned Capital Renewal Expenditure in the LTFP.

The capital renewal programs at **Appendix I** are based on the Projected Capital Renewal Expenditure figures.

The **Asset Renewal Funding Gap (cumulative over 10 years) of $618,674** is considered manageable, and any renewal works that will need to be deferred as a result, is not likely to have a material impact on asset condition overall. That said, routine condition assessments will continue to inform works programming decisions and optimise expenditure.

The spike in expenditure in years 2021/22, 2025/26, and 2030/31 (as shown in **Figure 7.1.2 - Projected vs Planned – All Assets**) relates mostly to the **road resurfacing program** and arises due to the logistics and cost of establishing road sealing contractors on the Island. Rather than spending relatively small amounts on road resurfacing each year and incurring substantial establishment costs, the plan is to do a large program of resurfacing every five or so years with greater cost efficiency.

7.1.4 Sustainability of service delivery

Two key indicators for service delivery sustainability have been considered in the analysis of the services provided by the assets, these being the:

a) **Asset Consumption Ratio** - a performance benchmark of between 60-40% has been set by the Auditor General for councils. The Ratio is derived by the total WDV / total Gross Replacement Cost, and;

b) **Asset Renewal Funding Ratio** - a performance benchmark of 90% has been set by the Auditor General for councils. The Ratio is derived by the 10yr total Planned (Budgeted) Renewal Expenditure / 10yr total Projected (Required) Renewal Expenditure.

Council's performance against these indicators for the 10 years (2021-2031) is as follows:

- **Asset Consumption Ratio – 62%**
- **Asset Renewal Funding Ratio – 95.6%**

The higher the number in each indicator, the better the result. Council's asset management indicator results exceed the benchmarks and reflect well on Council's ability to sustainably maintain the current LOS from its assets across the planning period.

7.2 Funding Strategy

Planned expenditure identified in Section 7.1.2 is to be funded from Council's operating and capital budgets. The funding strategy is detailed in the Council's LTFP.

Funding for assets includes:

- Council's General Fund, internal reserves, and loans
- Government grants, both State and Federal

While Council's funding strategy determines what funding will be provided, the SAMP communicates where and when these funds can be best spent, in order to meet the asset condition and service targets that have been set.

Assumptions used in both the SAMP and the LTFP will need to be reconsidered each time the documents are reviewed. Further work will be conducted in the coming months and years, in accordance with the Improvement Plan, to refine the assumptions used in this plan and reduce associated uncertainties in our financial forecasts.

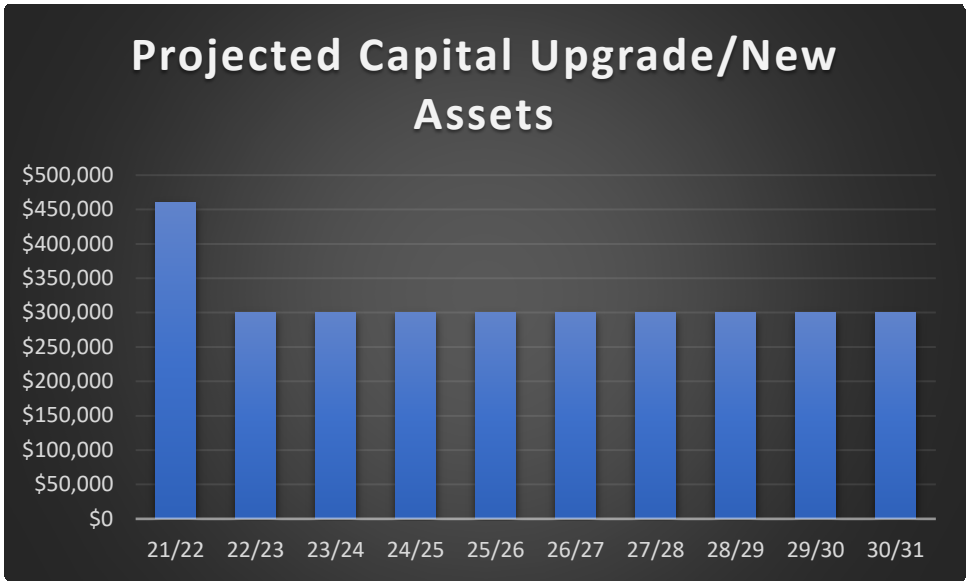
7.3 New and Upgraded Capital Expenditure

Additional (new) assets will generally add to the operations and maintenance needs in the longer term, as well as the need for future renewal. Additional assets will also add to future depreciation forecasts.

With Council's "Back to Basics" guiding principle, any increase in Council's asset portfolio is likely to be modest over the term of this SAMP. Council has however, expressed a desire to expand its sealed road network by constructing and sealing 2-3 km of gravel road per annum where funding allows.

The expected funding profile is provided in **Table 7.3**.

Table 7.3



7.4 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this SAMP. 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:

- Future expenditures are shown in current day dollars, i.e. real terms
- The asset registers used are generally up to date and have a reasonable level of accuracy
- The condition assessments are reasonably consistent and complete
- The valuations used are reasonably accurate and are a true reflection of the asset condition
- Renewal costs for assets are equal to current replacement cost (as estimated from unit rates and other recognised sources).

7.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this SAMP are based on best available data at the time of preparing the SAMP. Currency and accuracy of data is critical for effective asset and financial management. Data confidence levels are described in **Table 7.5**.

Table 7.5: Data Confidence Grading System

Confidence Grade	Description
A - Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%

Confidence Grade	Description
B - Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C - Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D - Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy ± 40%
E - Unknown	No or very little data held.

For the **Roads and Transportation,** and **Bridge and Drainage** asset categories, the estimated confidence grade for the data used in this SAMP is considered to be at **level (B) – Reliable.**

- The dataset is believed to be reasonably complete
- Asset unit rates are reasonably correct and current
- Asset useful lives have been reviewed and are in line with the current knowledge available on asset deterioration rates
- Asset condition scores are reasonably correct and current

For the **Buildings** asset category, the estimated confidence level for and reliability of data used in this SAMP is considered to be at a **Confidence Grade (D) – very uncertain.**

- The dataset is believed to be reasonably complete, however more work is required to capture building component data
- Building asset condition assessment is yet to be formally undertaken
- Asset replacement unit rates require development and validation

8. PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices[9]

8.1.1 Accounting and financial data sources

As well as complying with Australian Accounting Standards, King Island Council must comply with The Local Government Act and various other issued guidance.

The Department of Local Government has an Asset Accounting Manual that Council complies with.

The following accounting standards are also relevant to this SAMP:

- AASB 108 Accounting Policies, Changes in Accounting Estimates and Errors
- AASB 116 Property, Plant and Equipment
- AASB 136 Impairment of Assets
- AASB 138 Intangible Assets
- AASB 140 Investment Property
- AASB 1051 Land Under Roads

The Council uses MS Excel schedules for asset accounting calculations and enters the data into the Magiq financial management system for asset accounting reporting. In addition to acquisition, disposal, revaluation and depreciation transactions, the Magiq system also tracks expenditure on maintenance and capital renewal projects.

8.1.2 Asset management data sources

- Moloney Asset Management System for roads, transportation and drainage assets
- AuSpan Asset Management System for bridges and large culverts
- Asset Registers (Microsoft workbooks) for Buildings and other asset categories
- Magiq (Enterprise and Performance - reporting tool) for asset financial data

8.2 Improvement Plan

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

Timelines and estimated costs are indicative only and are provided to show the priority of each action. Actual delivery will be subject to the availability of budget and resources.

[9] ISO 55000 Refers to this the Asset Management System

Table 8.2: Improvement Plan

Task No	Task	Est Cost	Responsibility	Timeline
1	Undertake the development of a SAMP for King Island Airport	$15,000	GM	June 2022
2	Undertake formal condition and revaluation assessment for Building assets	$10,000	GM	June 2022
3	Develop / review regular inspection programs for key assets to identify defects and risks requiring intervention	$5,000	GM	Dec 2022
4	Prepare a list of critical assets, their prospective failure modes and required operations and maintenance activities	$5,000	GM	Dec 2022
5	Establish ranking criteria to determine priority of identified renewal and replacement proposals	$5,000	GM	March 2023
6	Establish ranking criteria to determine priority of identified new asset proposals	$5,000	GM	March 2023
7	Undertake the collection of asset inventory, assess condition, determine asset accounting values, and develop renewal and maintenance programs for the balance of Council's asset portfolio (i.e. those not covered by this SAMP)	$15pg,000	GM	June 2023

8.3 Monitoring and Review Procedures

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

The SAMP will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the long term financial plan.

8.4 Performance Measures

The effectiveness of the SAMP can be measured in the following ways:

- The degree to which the required projected expenditures are incorporated into the long term financial plan,
- The degree to which detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the SAMP,
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Strategic Plan and associated plans.

9. REFERENCES

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10. APPENDICES

Appendix A – Asset Categories and Types

Appendix B - Roads and Footpaths Classifications

Appendix C - Road Maintenance Targets

Appendix D - Footpath Maintenance Targets

Appendix E – Bridge and Drainage Maintenance Targets

Appendix F - Building Maintenance Targets

Appendix G - Routine Maintenance Program

Appendix H - Roads and Transport Risks

Appendix I – 10 Year Projected Capital Renewal Programs

Abbreviations:

AAAC Average annual asset consumption

SAMP Strategic Asset Management Plan

CRC Current replacement cost

DA Depreciable amount

LCC Life Cycle cost

LCE Life cycle expenditure

LTFP Long Term Financial Plan

MMS Maintenance management system

PMS Pavement Management System

RV Residual value

Glossary:

Asset category

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 months.

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 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 discretional and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, 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.

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 arm's length transaction.

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.

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 cycleway. 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.

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.

Maintenance and renewal gap

Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (e.g. 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.

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.

Reactive maintenance

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

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.

Risk management

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

Section or segment

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

Service potential

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

Service potential remaining

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

Appendix A – Asset Categories and Types

Asset Category / Type (in scope for this SAMP)
Roads and Transportation
Sealed Roads
Unsealed Roads
Kerb and Gutter
Footpaths
Road signs and markings
Road furniture e.g. guardrail, guideposts
Bridges and Drainage
Bridges and causeways
Drainage pipes
Box and pipe culverts
Drainage structures e.g. pits, inlets and headwalls
Open drains
Stormwater storage basins
Buildings (Property)
Residential properties
Commercial properties
Community buildings e.g. museum, KIRDO
Administration and town hall building
Works depot
Lighthouse
Public amenities
Sports buildings e.g. club houses
Racecourse buildings

Appendix B – Roads and Footpaths Classifications

a) Roads

Council's road network has been classified based on the function of the roads. This system is applied in terms of the road function and its current or proposed use. The road network is divided into link, collector and access to reflect the varying needs.

Rural Road Network

Rural Link (RL):

Roads of this classification primarily provide a direct linkage between townships, significant points of interest or infrastructure, major traffic generators such as port facilities, airport or major tourist areas. These roads have an Identifiable origin and destination. (i.e. Currie to Naracoopa or airport to State road)

Rural Collector (RC):

Roads of this classification primarily provide a route between and through, residential, industrial, agricultural and tourist traffic areas and the Rural Link and/or State road network. These roads also act as a collector system for access roads.

Rural Access (RA):

A road or laneway in this category primarily provides direct access for abutting residential, agricultural, industrial, and commercial and tourist properties and connect into either, the Link, Collector or State road network. There is minimal to no through traffic. These roads are mainly formed and paved, sealed and gravel or formed only with minimal improvements or unformed.

Urban Road Network

Urban Link (UL):

Roads of this classification primarily provide a linkage between significant Industrial and Commercial areas and or the State road network. These roads have an identifiable Origin and Destination (e.g. Connecting Currie Harbour to the State road)

Urban Collector (UC):

Roads of this category primarily provide a route between and through residential, industrial and commercial areas and convey traffic to the Link or State Road network.

Urban Access (UA):

A road, street, court or laneway that primarily provides direct access for abutting residential, industrial and commercial properties with minimal to no through traffic.

b) Footpaths

Council's footpath classification is based on key pedestrian generators and location, pedestrian age and type and functional use including shared footway/bike paths and general property access.

Category 1	High Profile Footpaths that are adjacent to shopping complexes and areas that generate constant pedestrian volumes, e.g. Hotels, clubs, supermarkets.
Category 2	Strategic footpaths that service schools, hospitals, aged and child care centres and areas of significance such as tourist venues.
Category 3	All other footpaths that provide pedestrian access from residential properties to category 1 and 2 footpath networks.
Category 4	Informal pathways and pedestrian tracks for casual access to points of interest.

Appendix C - Road Maintenance Targets

Roads (Sealed)

DEFECT/ACTIVITY- DESCRIPTION	RISK ASSESSMENT Intervention Levels	PRIORITY RESPONSE TIME		
		Link	Collector	Access
Potholes These are defined as small breaks and depressions where loss of pavement wearing surface has occurred.	Repair when pothole >50mm in depth or >300mm in width or rapid deterioration is likely	2 days	2 days	5 days
Edge Breaks These are defined as fretting along the seal edge resulting reduced seal width. Usually associated with eroded or weak shoulders in the vicinity of the bitumen edge.	Repair when edge break exceeds 75 mm over a 1 m length or when the drop off from pavement exceeds 50 mm	2 weeks	2 weeks	3 weeks
Shoulders The regular maintenance of unsealed shoulders in accordance with the appropriate intervention levels, including spot gravelling to avoid pavement drop off, reworking existing materials to maintain shape and crossfall, cleaning and maintenance of table drains	When shoulder subgrade area >20 sq.m is exposed and slippery or when potholes exceed 30 mm in depth and/or 450mm in width	2 weeks	2 weeks	3 weeks
Major Patching Defined as failed areas of pavement and seal up to 100 sq.m requiring excavation of pavement by plant and reinstatement to original design standards.	When a failed area results in danger to the public, the sealed surface no longer holds, extensive shoving has occurred and road surface drainage is no longer effective. Conventional methods of maintenance fail to maintain the surface	If a public hazard within 5 days otherwise in accordance with an approved program	If a public hazard within 5 days otherwise in accordance with an approved program	If a public hazard within 5 days otherwise in accordance with an approved program

DEFECT/ACTIVITY- DESCRIPTION	RISK ASSESSMENT Intervention Levels	PRIORITY RESPONSE TIME		
		Link	Collector	Access
Signs and Delineation Covers the replacement of damaged or missing signs, guideposts, marker posts and delineators. Also covers the regular painting of all pavement markings, including linemarking	Replace missing guideposts when 10% of posts are missing on straights and 5% on curves. Replace missing signs or signs that are illegible at 150m under low beam or in daylight. Linemarking replaced when no longer visible or at least bi-annually	4 weeks Regulatory Signs - 1 working day Guide Signs - 2 weeks In accordance with program	4 weeks Regulatory Signs - 1 working day Guide Signs - 2 weeks In accordance with program	4 weeks Regulatory Signs - 5 working days Guide Signs - 3 weeks In accordance with program

Roads (Unsealed)

DEFECT/ACTIVITY- DESCRIPTION	RISK ASSESSMENT Intervention Levels	PRIORITY RESPONSE TIME		
		Link	Collector	Access
Grading The regular maintenance grading and reshaping of gravel surfaced roads in accordance with appropriate intervention standards to remove corrugations, rutting and potholes and provide for proper drainage of the unsealed surface. This activity can also include removal of vegetation from shoulders, cleaning and reshaping table drains and spot gravelling of areas up to 20 sq.m	Road surface scoured, potholed, rutted, corrugated to a depth of 50mm and/or wearing surface has worn down to bare subgrade showing over 25% of a road section.	N/A	As per adopted program or if a safety hazard presents 5 days	As per adopted program or if a safety hazard presents 7 days
Signs and Delineation Covers the replacement of damaged or missing signs, guideposts, marker posts and delineators.	Replace missing guideposts when 10% of posts are missing on straights and 5% on curves. Replace missing signs or signs that are illegible at 150m under low beam or in daylight.	N/A	4 weeks Regulatory Signs - 1 working day Guide Signs - 2 weeks	4 weeks Regulatory Signs - 5 working days Guide Signs - 3 weeks
Roadside Vegetation – Vegetation (incl. Trees)	The cyclic maintenance of trees and shrubs within the road reserves (outside of urban areas) to maintain vehicle clearance limits of 4.9m vertically and sight distances at intersections and curves	N/A	Hazard to traffic or public 2 days Programmed trimming within 6 months	Hazard to traffic or public 2 days Programmed trimming within 6 months
Spot Gravelling and Patching The application of gravel or crushed rock to the wearing surface to strengthen and reshape the surface. Includes cleaning and reshaping of table drains.	Road subgrade is exposed for in excess of 40% of a kilometre of road length.	N/A	In accordance with the adopted program	In accordance with the adopted program

DEFECT/ACTIVITY- DESCRIPTION	RISK ASSESSMENT Intervention Levels	PRIORITY RESPONSE TIME		
		Link	Collector	Access
Inspections The undertaking by suitably qualified and experienced staff regular inspections of the asset to determine condition, compliance with maintenance standards and risk.	Condition inspections are undertaken to assess the condition of the asset against agreed set of criteria. Compliance inspections are undertaken in conjunction with routine patrol maintenance to determine compliance with the intervention standards set out in this SAMP. Risk inspections are undertaken in response customer complaints, officer reports or maintenance staff reports.	Every 12 months Based on the maintenance program, but at least monthly. Respond by inspecting and either making safe or programming the works within 1 day	Every 24 months Based on the maintenance program, but at least monthly. Respond by inspecting and either making safe or programming the works within 1 day	Every 36 months Based on the maintenance program, but at least 6 Weeks. Respond by inspecting and either making safe or programming the works within 1 day

Appendix D - Footpath Maintenance Targets

Regular inspection of footpaths is critical for meeting the needs and expectations of the community and for ensuring that potential litigation claims can be defended. Council has developed an inspection format that provides a record of all inspections and remedial or maintenance activities undertaken. This process enables most footpath defects to be managed within the necessary compliance of established maintenance intervention levels or where significant risks are discovered, remedial work may be undertaken in advance of possible injury. The inspection and response regime has been developed based on the Footpath classification of 1, 2, 3 and 4. The inspection program covers two specific aspects, safety of users and then structural condition. Safety inspections are carried out at a greater frequency than for structural defects although any structural defects that are a risk for users are identified during safety inspections. The purpose of inspections to assess structural condition and to identify defects that impact the integrity of the footpath in a manner that reduces its intended life. The table below provides an indication of potential defects and appropriate response to any defects recognised within the footpath network.

Hierarchy Category	Defect	Response Activity
Category 1: High Profile Footpaths that are adjacent to shopping complexes and areas that generate constant pedestrian volumes.	Paved areas sunk, cracked, heaved, when lips/edges are > 30 mm and/or mounding or depressions are > 40mm.	Condition/Risk Inspection 6 monthly Inspect within 5 days, highlight, make safe as required and replace within available annual maintenance program budget or list for program works on annual budget where funds are available highest priority based on footpath category rating.
	Paved areas sunk, cracked, heaved, when lips (ie slope >1:1) are 20 to 30 mm and/or mounding or depressions are 20 to 40mm.	
	15 to 30 mm lip/edge	Inspect within 24 hrs, highlight, make safe as required and edge grind or replace within annual maintenance program in order of priority of category rating
	10 to 15 mm lip/edge	Inspect within 24 hrs, highlight, make safe as required and edge grind or replace within 2 weeks of notification utilising allocated funds in annual maintenance budget.
Category 2: Strategic footpaths that service schools, hospitals, aged and child care centres and areas of	Paved areas sunk, cracked, heaved, when lips/edges are > 30 mm and/or mounding or depressions are > 40mm.	Condition/Risk Inspection 3 monthly Inspect within 5 days, highlight, make safe as required and replace within available annual maintenance program budget or list for program works on annual budget where funds are available highest priority based on footpath category rating.
	Paved areas sunk, cracked, heaved, when lips (ie slope >1:1) are 20 to 30 mm and/or mounding or depressions are 20 to 40mm.	

Hierarchy Category	Defect	Response Activity
significance such as tourist venues	15 to 30 mm lip/edge	Inspect within 24 hrs, highlight, make safe as required and edge grind or replace within annual maintenance program in order of priority of category rating
	10 to 15 mm lip/edge	Inspect within 24 hrs, highlight, make safe as required and edge grind or replace within 2 weeks of notification utilising allocated funds in annual maintenance budget.
Category 3 All other footpaths that provide pedestrian access from residential properties to category 1 and 2 footpath networks	Paved areas sunk, cracked, heaved, when lips/edges are > 30 mm and/or mounding or depressions are > 40mm.	Condition/Risk Inspection Every 2 Years Inspect within 5 days, highlight and make safe as required and replace within 2 years where funding allows, with works undertaken in order of risk priority.
	Paved areas sunk, cracked, heaved, when lips (ie slope >1:1) are 20 to 30 mm and/or mounding or depressions are 20 to 40mm.	
	15 to 30 mm lip/edge	Inspect within 5 days, highlight make safe as required and edge grind or replace within 2 years in order of risk priority.
	10 to 15 mm lip/edge	Inspect within 24 hrs, highlight, make safe and edge grind or replace within annual program utilising allocated funds in annual maintenance budget.
Category 4: Pathways and pedestrian tracks for casual access to points of interest	Paved areas sunk, cracked, heaved, when lips/edges are > 30 mm and/or mounding or depressions are > 40mm.	Condition/Risk Inspection as required - If action is necessary, undertake as resources permit
	Paved areas sunk, cracked, heaved, when lips (ie slope >1:1) are 20 to 30 mm and/or mounding or depressions are 20 to 40mm.	Condition/Risk Inspection as required - If action is necessary, undertake as resources permit
	10 to 30 mm lip/edge	Condition/Risk Inspection as required - If action is necessary, undertake as resources permit

Appendix E – Bridge and Drainage Maintenance Targets

BRIDGES

DEFECT/ACTIVITY- DESCRIPTION	RISK ASSESSMENT Intervention Levels	PRIORITY RESPONSE TIME		
		Link	Collector	Access
Blocked waterway	>25% blocked	Inspect within 1 week of storm/flooding event Blockages cleared within 1 month	Inspect within 2 week of storm/flooding event Blockages cleared within 2 months	Inspect within 1 month of storm/flooding event Blockages cleared within 6 months
Decking fault (timber)	Loose/missing running or transverse decking. Protruding decking spikes	Make safe (barrier/signage) within 1 day Effect repair within 1 week	Make safe (barrier/signage) within 1 day Effect repair within 1 week	Make safe (barrier/signage) within 1 day Effect repair within 1 month
Traffic/Pedestrian Barrier System	Integrity effected by vehicle impact or otherwise loose or missing	Make safe (barrier/signage) within 1 day Effect repair within 1 week	Make safe (barrier/signage) within 1 day Effect repair within 1 week	Make safe (barrier/signage) within 1 day Effect repair within 1 month
Structural fault	Severity of defect warrants imposition of load limit and or speed limit	Make safe (barrier/signage) within 1 day Repair/replace bridge component within works	Make safe (barrier/signage) within 1 day Repair/replace bridge component	Make safe (barrier/signage) within 1 day Repair/replace bridge component within

DEFECT/ACTIVITY- DESCRIPTION	RISK ASSESSMENT Intervention Levels	PRIORITY RESPONSE TIME		
		Link	Collector	Access
		program/budget availability	within works program/budget availability	works program/budget availability
Loose/displaced protection angles, subsidence at approaches etc.	Hazard to traffic	Make safe (barrier/signage) within 1 day Effect repair within 1 week	Make safe (barrier/signage) within 1 day Effect repair within 1 month	Make safe (barrier/signage) within 1 week Effect repair within 3 months
Blocked deck scuppers	Water ponding	Clear within 2 days	Clear within 1 week	Clear within 1 month

DRAINAGE

DEFECT/ACTIVITY- DESCRIPTION	RISK ASSESSMENT Intervention Levels	PRIORITY RESPONSE TIME		
		Link	Collector	Access
Blocked inlet structure or conduit	Drains, culverts and pits to be kept at 75% operating capacity	Inspect within 1 week of storm/flooding event Blockages cleared within 1 month	Inspect within 2 week of storm/flooding event Blockages cleared within 2 months	Inspect within 1 month of storm/flooding event Blockages cleared within 6 months

DEFECT/ACTIVITY- DESCRIPTION	RISK ASSESSMENT Intervention Levels	PRIORITY RESPONSE TIME		
		Link	Collector	Access
Subsidence to surface or pavement over pipe/box culvert	Structural conduit failure or loss of backfill/pavement compaction	Inspect to determine fault and make safe (barrier/signage) within 1 day Reinstate pavement within 1 month Repair/replace drainage component within works program/budget availability	Inspect to determine fault and make safe (barrier/signage) within 2 days Reinstate pavement within 3 months Repair/replace drainage component within works program/budget availability	Inspect to determine fault and make safe (barrier/signage) within 1 week Reinstate pavement within 6 months Repair/replace drainage component within works program/budget availability
Table (longitudinal and mitre) drains	Ponding/blocked with vegetation or sediment	Maintained in conjunction with road shoulder, road grading activity	Maintained in conjunction with road shoulder, road grading activity	Maintained in conjunction with road shoulder, road grading activity

Appendix F – Buildings - Maintenance Targets

Hierarchy Category	Defect	Response Activity
Operational – Major **Community – Major** **Commercial** (excl. leased buildings**) **Residential** (excl. leased buildings**)	Public or user safety hazard or defect – trip hazard, loose or faulty safety system (handrails, barriers), etc	Make safe (isolate/barrier etc) within 1 day Effect repair within 1 month
	Building security defect – broken door, lock, window, security system/alarm, etc	Make secure same day. Effect repair within 1 week
	Fire safety system defect – exit lighting, extinguisher fault, fire alarm fault	Effect repair within 1 business day
	Defect effecting weather protection – leaking roof, damp/mould,	Temp repair within 1 week Permanent repair within 3 months
	Structural defect – pest infestation (termite/borer)	Make safe (isolate/barrier/temp supports) within 1 day Pest treatment within 1 month Effect repair within 6 months
	Electrical fault impacting safe use – lighting, power loss	Make safe same day. Effect repair within 1 week
	Plumbing drainage fault – leaking pipes, sewer choke	Isolate within same day Effect repair within 1 business day
	Mechanical system fault - HVAC	Effect repair within 1 week
	Cosmetic defect – paint finishes, loose tiles,	Effect repair within 12 months

Hierarchy Category	Defect	Response Activity
Operational – Minor **Community – Minor** **Recreational**	Public or user safety hazard or defect – trip hazard, loose or faulty safety system (handrails, barriers), etc	Make safe (isolate/barrier etc) within 1 day Effect repair within 6 months
	Building security defect – broken door, lock, window, security system/alarm, etc	Make secure same day. Effect repair within 1 week
	Fire safety system defect – exit lighting, extinguisher fault, fire alarm fault	Effect repair within 1 business day
	Defect effecting weather protection – leaking roof, damp/mould,	Temp repair within 1 week Permanent repair within 6 months
	Structural defect – pest infestation (termite/borer)	Make safe (isolate/barrier/temp supports) within 1 day Pest treatment within 3 months Effect repair within 12 months
	Electrical fault impacting safe use – lighting, power loss	Make safe same day. Effect repair within 1 week
	Plumbing drainage fault – leaking pipes, sewer choke	Isolate within 1 business day Effect repair within 1 week
	Mechanical system fault - HVAC	Effect repair within 1 week
	Cosmetic defect – paint finishes, loose tiles,	Effect repair within 12 months

** Where commercial or residential buildings are leased, maintenance responsibilities are defined within the lease agreement.

Appendix G – Routine Maintenance Program

Routine maintenance covers the general maintenance of Council roads and associated infrastructure, and includes the following activities:

- Sealed road patching
- Gravel road potholing / grading
- Drainage culvert clearing
- Guidepost maintenance
- Signs maintenance
- Tree trimming
- Weed control

Other road maintenance and minor works are to be addressed through separate programs due to differing resourcing and scheduling requirements. These include

- Road shoulder grading / resheeting
- Roadside mowing and slashing
- Road digouts
- Street sweeping
- Infrastructure repairs (eg footpaths and guardrail)
- Town centre care (eg footpath cleaning)

The island has been divided into three zones:

- North Zone
- Middle Zone
- South Zone

Routine maintenance crews aim to visit each maintenance zone every three months, i.e. four times per year, in accordance with the following schedule:

Month	**Zone**
January	North
February	Middle
March	South
April	North
May	Middle
June	South
July	North

August	Middle
September	South
October	North
November	Middle
December	South

When crews visit a zone the maintenance needs and job locations are determined based on inspections and any customer requests previously received for the zone. These are addressed as appropriate based on available resources.

In addition to the regular zone visits, maintenance is carried out as required at locations throughout the island based on priorities and resourcing. Examples include conducting urgent work due to storm damage or oil/chemical spills or incorporating maintenance with other programmed roadworks.

Appendix H – Roads and Transportation Risks

Asset at Risk	Issue	Concern or Hazard	Possible Outcome	Who / What Will it Impact?	Existing Controls in Place	Risk Level
Road pavement	Changes in standards	Higher costs of rehabilitation projects	Reduction in rehabilitation program	Capital budget	Project management	L
Road pavement	Heavy vehicle overloading	Pavement damage	Pavement failure	Capital budget	Regular inspections	M
Road pavement	Surface cracking	Allows water into pavement and subgrade	Pavement failure	Maintenance budget	Regular inspections Resurfacing program based on condition	M
Road pavement	Heavy traffic in wet weather	Extensive formation of potholes	A break in the road surface can result in a potholes	Public cost and maintenance budget	Regular inspections; public complaints	M
Road pavement	Blocked inlet drains	Stormwater flowing onto the roadway	Flooded road	Maintenance budget	Regular inspections; public complaints	L
Road pavement	Breaking of the pavement edges	Edges become slippery	Cars slipping at the edge of the pavement	Public safety	Regular inspections	L
Road pavement	Insufficient pavement drainage	Damage to the pavement	Pavement failure following wet weather	Maintenance budget	Regular inspections; public complaints	L
Gravel road	Complaints regarding poor access	Public safety and car maintenance cost	Damage to vehicles and the environmental	Public safety, public cost and resident amenity	Gravel road maintenance program	M
Kerb and Gutter	Poor design of the kerb and gutter or layback	Ineffective surface drainage	Ponding on the edge of the roadway	Public safety	Inspection following heavy rain	L
Kerb and Gutter	Blocked inlet drains	Overflow into adjoining property	Flooding of adjoining property	Resident amenity	Inspection following heavy rain	L
Kerb and Gutter	Flooding of property due to damaged kerb and gutter	Damage to property	Flooding of adjoining property	Resident amenity	Inspection following heavy rain	L

Asset at Risk	Issue	Concern or Hazard	Possible Outcome	Who / What Will it Impact?	Existing Controls in Place	Risk Level
Retaining walls	Old structural components	Deterioration of the wall components	Wall collapse following heavy rain	Public safety	Regular inspections	M
Road shoulders	Storm water control	Inadequate drainage capacity	Flooding of the road and property	Resident amenity	Shoulder maintenance program	L
Road shoulders	Erosion and environmental impact of unsealed shoulder	Filling up of drains and scouring of drainage paths	Degradation of the shoulder	Maintenance budget	Shoulder maintenance program	L
Sub-soil drains	Inadequate cleaning of the drain inlets	Blocked drains can inhibit drainage of the pavement	Pavement failure	Maintenance budget	Regular inspections; public complaints	M
Institutional	Ineffective specifications	Poorly constructed road assets	Council takes responsibility for poorly constructed roads	Maintenance budget	DAC procedures	M
Institutional	Inadequate systems to support information sharing	Sub-optimal planning	Wasted expenditure	Council budget	Internal organisation	M
Institutional	Ineffective planning tools (GIS)	Sub-optimal planning	Wasted expenditure	Council budget	Internal organisation	M

Appendix I – 10 Year Projected Capital Renewal Programs

ROADS AND TRANSPORT – SEALED SURFACE PROGRAM

ID No.	Road Name	Suburb	From	To	Length m	Width m	Area m2	Cond	Rate $/m2	Reseal Cost	Treatment Type	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
	TOTALS									**11,894,307**		**1400000**	**0**	**0**	**0**	**1280537**	**0**	**0**	**0**	**0**	**1279541**
37	Cape Wickham Rd		Seal Change	End of Seal	1,395	6.1	8,510	1.82	23.00	195,719	R10	101430									
38	Cape Wickham Rd		Disapointment Bay Rd	Seal Change	1,795	6.1	10,950	4.25	23.00	251,839	FS7	51839									
39	Cape Wickham Rd		Spring Rd	Disapointment Bay Rd	1,845	6.4	11,808	4.85	23.00	271,584	FS7	71584									
40	Cape Wickham Rd		Rocky Point Rd	Spring Rd	1,075	6.4	6,880	4.25	23.00	158,240	FS7	58240									
69	Old Grassy Rd		Ch 8.0	Segment Change	1,340	6.6	8,844	4.85	23.00	203,412	R7	155725									
70	Old Grassy Rd		6.72 Missons Rd	Segment Change	850	6.6	5,610	4.85	23.00	129,030	R7	129030									
74	Old Grassy Rd		Segment Change	Seal Change	1,130	6	6,780	4.09	23.00	155,940	R7	155940									
75	Old Grassy Rd		Segment Change	Segment Change	1,000	6	6,000	4.09	23.00	138,000	R7										138000
76	Old Grassy Rd		Seal Change	Segment Change	1,650	6	9,900	4.25	23.00	227,700	R7	89700									
78	South Rd		Segment Change	1.95 Old Grassy Rd	1,235	5.3	6,546	3.03	23.00	150,547	R10	150547									
79	South Rd		Grassy Rd	Pavement Change	180	6.1	1,098	3.48	23.00	25,254	R10	25254									
253	Rocky Point Rd		KI Main/ Haines Rd Junction	Wickham Rd	1,305	6.4	8,352	4.25	23.00	192,096	R7										192096
310	South Rd		Start of Seal	End of Seal	410	5.9	2,419	4.39	23.00	55,637	FS7	55637									
315	South Rd		Segment Change	End of Seal	935	6.2	5,797	2.73	23.00	133,331	R10	133331									
316	South Rd		Segment Change	Segment Change	810	6.2	5,022	2.73	23.00	115,506	R10	115506									
317	South Rd		1.95 Old Grassy Rd	Segment Change	745	6.2	4,619	2.73	23.00	106,237	R10	106237									
369	Yarra Creek Road		Segment Change	Segment Change	1,000	5	5,000	4.85	23.00	115,000	R12					115000					
375	Don Kendell Drive (Aerodrome Rd)		Seal Change	Munros Rd	1,230	5.7	7,011	4.24	23.00	161,253	R10										161253
405	Fraser Rd		Wicks Rd Junction	Munros Rd Junction	160	6	960	4.69	23.00	22,080	R14					22080					
432	Johnson Rd		KI Main Rd	end	160	4.6	736	5.91	23.00	16,928	R14					16928					
466	Netherby Rd		seal end	British Admiral Beach	1,470	5.4	7,938	3.79	23.00	182,574	R10										182574
467	Netherby Rd		seal change	Seal Change	430	5.7	2,451	4.69	23.00	56,373	R10					56373					
470	Netherby Rd	Currie	KI Main Rd	John St	380	10	3,800	5.15	23.00	87,400	R14					87400					
473	Sassafras St	Grassy	Banksia St	Waratah St	345	6.5	2,243	4.39	23.00	51,578	R10					51578					
474	Waratah St	Grassy	Banksia St	Acacia St	300	6.5	1,950	4.39	23.00	44,850	R10										44850
475	Myrtle St	Grassy	Banksia St	Sassafras St	260	6.5	1,690	4.39	23.00	38,870	R10										38870
481	Henry St	Currie	end of seal	end	150	5.8	870	4.09	23.00	20,010	R7					20010					
488	Recreation Ground Rd	Currie	Golf Club Rd	Scout Hall	200	6	1,200	5.31	23.00	27,600	R10					27600					
490	Tennis Court Rd	Currie	Recreation Ground Rd	Tennis Courts	50	5.2	260	5.00	23.00	5,980	R10					5980					
492	Arthur St	Currie	North Rd	end	200	6.4	1,280	4.39	23.00	29,440	R12										29440
499	Lighthouse St	Currie	Beach Rd Jun	Width Change	236	7.4	1,746	3.79	23.00	40,167	R10										40167
500	Lighthouse St	Currie	Wharf Rd	Beach Rd Jun	242	6.7	1,621	3.79	23.00	37,292	R10										37292
504	Munro Place	Currie	Lighthouse St	end	80	6.4	512	4.24	23.00	11,776	R10										11776
525	Acacia St	Grassy	Blackwood St	Waratah St	102	7.5	765	3.79	23.00	17,595	R7										17595
537	Yarra Creek Road		Grassy Rd	Seal Change	420	5.2	2,184	4.24	23.00	50,232	R12					50232					
543	Millwood Rd		Seal Change	End of Seal	785	5.2	4,082	6.06	23.00	93,886	R10					93886					
545	Pegarah Rd		Segment Change	Seal Change	730	6	4,380	4.85	23.00	100,740	R10					100740					
546	Pegarah Rd		Segment Change	Segment Change	1,500	6	9,000	5.31	23.00	207,000	R10					207000					
547	Pegarah Rd		Seal Change	Segment Change	1,505	6	9,030	5.46	23.00	207,690	R10					207690					
550	Pegarah Rd		Segment Change	Seal Change	1,580	6	9,480	4.40	23.00	218,040	R7					218040					
551	Pegarah Rd		Gate South Side	Segment Change	1,225	6	7,350	4.55	23.00	169,050	R7										169050
552	Pegarah Rd		North Pegarah Rd	Gate South Side	1,510	6	9,060	4.09	23.00	208,380	R7										208380
558	Edward St P/B and Kerb and F/P's	Currie	North Rd Roundabout	Netherby St	54	6.6	356	3.94	23.00	8,197	R10										8197

ROADS AND TRANSPORT – GRAVEL RE-SHEET PROGRAM

ID No.	Road Name	Suburb	From	To	Length m	Width m	Area m2	Category	Cond	Rate $/m2	Replace. Cost	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
											TOTALS	0	409704	409056	388224	381552	391872	406872	414048	389050	393158
5	Adams Rd		Pavement Change	End	230	6	1380	2	6.00	9.60	13,248			13248							
6	Aldridges Rd		Millwood Rd	End	920	2.5	2300	2	7.00	9.60	22,080		22080								
9	Barnes Rd		End of Seal	Ch 1.00	800	4	3200	2	5.00	9.60	30,720					30720					
10	Barnes Rd		Ch 1.00	to coast	1,040	4	4160	2	4.00	9.60	39,936							39936			
11	Bungaree Rd		KI Main Rd	Ch 1.00 (Gate @1.030)	1,000	3	3000	2	6.00	9.60	28,800			28800							
12	Bungaree Rd		Ch 1.00	End	950	3	2850	2	7.00	9.60	27,360		27360								
16	Bold Head Rd		Grahams Rd	End	830	3.5	2905	2	5.00	9.60	27,888					27888					
17	Bold Head Rd		Ch 2.00	Grahams Rd	790	4	3160	2	5.00	9.60	30,336					30336					
18	Bold Head Rd		Skipworths Rd	Ch 2.00	1,000	4	4000	2	7.00	9.60	38,400		38400								
19	Bold Head Rd		Yarra Ck Rd/ Millwood Rd Junc	Skipworths Rd	1,000	5	5000	2	3.00	9.60	48,000										48000
25	Browns Rd		Tine Mine Rd	Segment Change	1,210	5.5	6655	1	3.00	9.60	63,888										63888
26	Browns Rd		Segment Change	Tine Mine Rd	790	5.5	4345	1	3.00	9.60	41,712										41712
30	Brumbys Rd		Ch 3.00	End	1,060	3.5	3710	2	5.00	9.60	35,616					35616					
31	Brumbys Rd		Ch 2.00	Ch 3.00	1,000	3.5	3500	2	5.00	9.60	33,600					33600					
41	Denbys Rd		Ch 1.00	end	290	4	1160	2	5.00	9.60	11,136					11136					
42	Denbys Rd		Millwood Rd	Ch 1.00	1,000	4	4000	2	5.00	9.60	38,400					38400					
43	Dickers Rd		Ch 1.00	End	800	5	4000	2	4.00	9.60	38,400							38400			
44	Dickers Rd		Reekara Rd	Ch 1.00	1,000	5	5000	2	4.00	9.60	48,000							48000			
55	Folders Rd		Ridges Rd	End	540	2.5	1350	3	5.00	9.60	12,960					12960					
56	Grahams Rd		Ch 5.60	Ch 6.70	1,100	4	4400	2	4.00	9.60	42,240							42240			
60	Grahams Rd		Ch 1.60	Start of Seal	1,810	5	9050	2	6.00	9.60	86,880			86880							
80	Graves Rd		KI Main Rd	End	580	4	2320	2	4.00	9.60	22,272							22272			
82	Haines Rd		Ch 5.0	(M Lavinia Rd Ch 5.46)	1,000	5	5000	2	3.00	9.60	48,000										48000
83	Haines Rd		Ch 4.0	Ch 5.0	1,000	5	5000	2	3.00	9.60	48,000										48000
92	Heddles Rd		Segment Change	End	600	3	1800	2	7.00	9.60	17,280		17280								
93	Heddles Rd		Segment Change	Segment Change	1,000	3	3000	2	6.00	9.60	28,800			28800							
95	Heddles Rd		Segment Change	Segment Change	1,000	4	4000	2	5.00	9.60	38,400					38400					
96	Heddles Rd		Segment Change	Segment Change	1,000	3	3000	2	7.00	9.60	28,800		28800								
97	Heddles Rd		Segment Change	Segment Change	1,000	4	4000	2	4.00	9.60	38,400							38400			
100	Houfes Rd		Pavement Change	End	760	2.5	1900	3	6.00	9.60	18,240			18240							
101	Houfes Rd		Segment Change	Pavement Change	1,100	3	3300	3	5.00	9.60	31,680					31680					
102	Houfes Rd		Reekara Rd	Segment Change	1,000	3	3000	3	5.00	9.60	28,800					28800					
103	Kentford Rd		Segment Change	Cattle Grid	500	5	2500	3	8.00	9.60	24,000		24000								
104	Kentford Rd		Segment Change	Segment Change	1,000	5	5000	3	7.00	9.60	48,000		48000								
105	Kentford Rd		Segment Change	Segment Change	1,000	5	5000	3	5.00	9.60	48,000						48000				
111	Johnstones Rd		KI Main Rd	End	1,120	3	3360	2	4.00	9.60	32,256							32256			
135	Manuka Rd		Gate	Coast	755	3.5	2642.5	3	4.00	9.60	25,368							25368			
141	Marshalls Rd		Segment Change	End	620	5.5	3410	2	6.00	9.60	32,736			32736							
142	Marshalls Rd		Timber Bridge	Segment Change	1,070	5.5	5885	2	5.00	9.60	56,496						56496				
143	Marshalls Rd		Segment Change	Timber Bridge	930	5.5	5115	2	5.00	9.60	49,104						49104				
192	North Yellow Rock Rd		Ch 3.0 (Sth Yell Rk Rd Ch 3.28)	Bridge	890	4	3560	2	4.00	9.60	34,176							34176			

ROADS AND TRANSPORT – GRAVEL RE-SHEET PROGRAM (cont.)

ID No.	Road Name	Suburb	From	To	Length m	Width m	Area m2	Category	Cond	Rate $/m2	Replace. Cost	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
											TOTALS	0	409704	409056	388224	381552	391872	406872	414048	389050	393158
193	North Yellow Rock Rd		Segment Change	Ch 3.0 (Sth Yell Rk Rd Ch 3.28)	1,000	5	5000	2	4.00	9.60	48,000								48000		
196	Peters Rd		South Rd	End	1,150	3	3450	2	6.00	9.60	33,120			33120							
197	Rankins Rd	Naracoopa	Ch 0.9	End	110	3	330	2	6.00	9.60	3,168			3168							
198	Rankins Rd	Naracoopa	Fraser Rd	Segment Change	900	4	3600	2	4.00	9.60	34,560							34560			
204	Red Hut Rd		Segment Change	Segment Change	1,000	4	4000	2	4.00	9.60	38,400								38400		
205	Red Hut Rd		Segment Change	Segment Change	1,000	4	4000	2	4.00	9.60	38,400								38400		
206	Red Hut Rd		Ch 1.0 (Fergussons Rd Ch 1.8)	Segment Change	1,000	4	4000	2	4.00	9.60	38,400								38400		
208	Reeds Rd		Millwood Rd	End	1,020	3	3060	3	6.00	9.60	29,376			29376							
215	Reekara Rd		12.67 Counsel Hill Rd	Segment Change	1,000	6	6000	2	4.00	9.60	57,600								57600		
218	Reekara Rd		Segment Change	Dickers Rd	605	6	3630	2	4.00	9.60	34,848								34848		
228	Ridges Rd		Segment Change	Sea Elephant River	1,140	5.5	6270	3	6.00	9.60	60,192				60192						
232	Ridges Rd		6.81 Tolmans Rd	Segment Change	1,000	5.5	5500	3	4.00	9.60	52,800								52800		
233	Ridges Rd		Segment Change	6.81 Tolmans Rd	1,000	5.5	5500	3	4.00	9.60	52,800								52800		
234	Ridges Rd		4.24 Dr Watsons Rd	Segment Change	1,000	5.5	5500	3	4.00	9.60	52,800								52800		
241	Rifle Range Rd	Currie	Pavement Change	Gate	370	5	1850	2	6.00	9.60	17,760				17760						
251	Rocky Point Rd		Segment Change	Gate	320	3.5	1120	2	7.00	9.60	10,752		10752								
252	Rocky Point Rd		Wickham Rd	Segment Change	695	3.5	2432.5	2	7.00	9.60	23,352		23352								
254	Sartoris Rd		Old Grassy Rd	End	1,340	3.4	4556	2	4.00	9.60	43,738									43737.6	
256	Scotts Rd		North Rd	Pavement Change	380	4	1520	3	4.00	9.60	14,592									14592	
257	Sea Elephant Rd		Segment Change	Sea Elephant River	640	4	2560	2	6.00	9.60	24,576				24576						
258	Sea Elephant Rd		Segment Change	Segment Change	1,000	4	4000	2	7.00	9.60	38,400		38400								
259	Sea Elephant Rd		Segment Change	Segment Change	1,000	4	4000	2	7.00	9.60	38,400		38400								
260	Sea Elephant Rd		Segment Change	Segment Change	1,000	4.5	4500	2	5.00	9.60	43,200						43200				
261	Sea Elephant Rd		Segment Change	Segment Change	1,000	4.5	4500	2	5.00	9.60	43,200						43200				
262	Sea Elephant Rd		Blowholes Rd	Segment Change	960	4.5	4320	2	5.00	9.60	41,472						41472				
263	Sea Elephant Rd		Segment Change	Blowholes Rd	1,040	5	5200	2	4.00	9.60	49,920									49920	
264	Sea Elephant Rd		Segment Change	Segment Change	1,000	5	5000	2	4.00	9.60	48,000									48000	
265	Sea Elephant Rd		Segment Change	Segment Change	1,000	5	5000	2	4.00	9.60	48,000									48000	
275	Bowlings Farm Rd		Seal River Rd	Pavement Change	300	3	900	3	4.00	9.60	8,640									8640	
276	Seal Rocks Rd		Segment Change	End	530	3	1590	2	4.00	9.60	15,264									15264	
277	Seal Rocks Rd		Segment Change	Segment Change	1,000	3	3000	2	4.00	9.60	28,800									28800	
278	Seal Rocks Rd		Segment Change	Segment Change	1,000	3	3000	2	4.00	9.60	28,800									28800	
282	Skipworths Rd		Segment Change	Ch 1.79 (Gate)	790	3	2370	2	6.00	9.60	22,752				22752						
283	Skipworths Rd		Bold Head Rd	Segment Change	1,000	3	3000	2	6.00	9.60	28,800				28800						
284	Skyline Drive	Naracoopa	Pegarah Sec Rd	End	270	3.5	945	3	4.00	9.60	9,072									9072	

ROADS AND TRANSPORT – GRAVEL RE-SHEET PROGRAM (cont.)

ID No.	Road Name	Suburb	From	To	Length m	Width m	Area m2	Category	Cond	Rate $/m2	Replace. Cost	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
											TOTALS	0	409704	409056	388224	381552	391872	406872	414048	389050	393158
285	Snodgrass Lane		North Rd	end	950	3.5	3325	3	6.00	9.60	31,920				31920						
286	South Reekara Rd		Segment Change	end	540	4	2160	2	6.00	9.60	20,736				20736						
287	South Reekara Rd		Property Entrance	Segment Change	900	3	2700	2	6.00	9.60	25,920				25920						
327	Stricklands Rd		1.60 Bridge	Munros Rd	460	3	1380	3	4.00	9.60	13,248									13248	
329	Stricklands Rd		KI Main Rd	Property Entrance	1,060	3.5	3710	3	4.00	9.60	35,616									35616	
334	Tathams Rd		Segment Change	End	630	3	1890	3	7.00	9.60	18,144			18144							
335	Tathams Rd		Segment Change	Segment Change	1,000	3	3000	3	6.00	9.60	28,800				28800						
336	Tathams Rd		Segment Change	Segment Change	1,000	3.5	3500	3	5.00	9.60	33,600						33600				
337	Tathams Rd		Segment Change	Segment Change	1,000	3.5	3500	3	4.00	9.60	33,600									33600	
343	Tine Mine Rd		Segment Change	Segment Change	1,000	3.5	3500	3	7.00	9.60	33,600			33600							
344	Tine Mine Rd		Segment Change	Segment Change	1,000	3.5	3500	3	8.00	9.60	33,600		33600								
345	Tine Mine Rd		Segment Change	Segment Change	1,000	4	4000	3	6.00	9.60	38,400				38400						
346	Tine Mine Rd		Segment Change	Segment Change	1,000	4	4000	3	6.00	9.60	38,400				38400						
347	Tine Mine Rd		Segment Change	Segment Change	1,000	4	4000	3	5.00	9.60	38,400						38400				
348	Tine Mine Rd		Browns Rd	Segment Change	1,000	4	4000	3	5.00	9.60	38,400						38400				
356	Whistler Point Road		St Yellow Rk Rd	Gate	850	6	5100	3	7.00	9.60	48,960			48960							
359	Woods Rd		North Rd	end	640	6	3840	2	5.00	9.60	36,864							36864			
361	Yambacoona Rd		Segment Change	Old Wickham Rd	350	3.5	1225	2	4.00	9.60	11,760									11760	
362	Yambacoona Rd		Segment Change	Segment Change	1,000	3.5	3500	2	4.00	9.60	33,600										33600
420	Buttons Rd		Ch 2.0	end	630	3.5	2205	2	6.00	9.60	21,168				21168						
421	Buttons Rd		Ch 1.0	Ch 2.0	1,000	3.5	3500	2	8.00	9.60	33,600		33600								
433	Dr. Watsons Rd		Segment Change	End and Gate	1,180	3	3540	3	7.00	9.60	33,984			33984							
434	Dr. Watsons Rd		Ridges Rd	Segment Change	1,000	3	3000	3	6.00	9.60	28,800				28800						
449	Beach Rd	Naracoopa	Pavement Change	End	470	2.5	1175	2	8.00	9.60	11,280		11280								
452	Pearsons Lane		Segment Change	coast	500	0.3	150	3	4.00	9.60	1,440										1440
456	Tower Hill Rd	Currie	KI Main Rd	End	480	2.5	1200	3	5.00	9.60	11,520							11520			
458	Boronia Drive	Grassy	Acacia Av / Sassafras St	end	300	3.5	1050	3	4.00	9.60	10,080										10080
463	Parer St	Currie	Huxley St	Bicentennial Park	66	3.5	231	2	4.00	9.60	2,218										2217.6
526	Marshalls Rd		Fraser Rd	Segment Change	1,000	5.5	5500	2	6.00	9.60	52,800					52800					
527	Martha Lavinia Rd		Ch 1.0	State reserve	1,050	4.5	4725	2	4.00	9.60	45,360										45360
528	Martha Lavinia Rd		Haines Rd	Ch 1.0	1,000	4.5	4500	2	4.00	9.60	43,200										43200
529	McCuska Rd		North Rd	End	320	3	960	3	6.00	9.60	9,216					9216					
540	Cable Station Rd		End of Seal	Property Entrance	100	3	300	3	5.00	9.60	2,880							2880			
623	Acacia St	Grassy	Waratah St	End	228	3.5	798	2	4.00	9.60	7,661										7660.8
630	Bowlings Farm Rd		Pavement Change	End	500	3	1500	3	8.00	9.60	14,400		14400								

BRIDGES AND MAJOR CULVERTS RENEWAL PROGRAM

List No.	Bridge No	River Name	Road Name	Deck Type	Deck Area	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
			TOTALS							**300,000**	**130,000**	**130,000**			**216,000**
31	280	YELLOW ROCK R	NORTH YELLOW ROCK	CON	38.24										
20	281	CHASEYS CRK	MUNRO RD	CON	46.69										
36	283	FRASER RIVER	PEGARAH RD	CON	50.43										
1	369	ETTRICK CRK	SOUTH RD	CON	92.30										
2	528	SEAL RIVER	SEAL RIVER RD	CON	53.76										
3	1544	SEA ELEPHANT R	FRAZER RD	CON	39.10										
4	1545	FRAZER RIVER	FRAZER RD	CON	41.31										
5	1660	PORKY CRK	STRICKLAND RD	CON	28.14										
6	2297	FRAZER RIVER	NARACOOPA RUTILE MINE ROAD	CON	36.59					300,000					
7	2819	YELLOW ROCK R	NORTH YELLOW ROCK	CON	34.26										
22	3608	YELLOW ROCK RIVER	REEKARA RD	CON	20.16										
23	3802	ETTRICK TRIB	OLD GRASSY RD	CON	22.20										
8	3815	YELLOW ROCK TRIB	MANANA RD	CON	36.31										216,000
9	3954	SEA ELEPHANT FO	FRAZER RD	CON	21.74										
10	4502	YELLOW ROCK TRIB	MANANA RD	CON	35.74										
11	4890	YELLOW ROCK TRIB	MANANA RD	CON	38.16										
12	5020	GRASSY RIVER	GRAHAMS RD	CON	40.16										
13	5053	FRAZER RIVER	BRUMBY RD	CON	24.36										
14	5259	YARRA CRK	ROBINS RD	CON	19.84										
25	5260	YARRA TRIB	ROBINS RD	CON	15.53										
26	5453	YARRA CRK	MILLWOOD RD	CON	98.49										
15	5457	YELLOW ROCK CRK	MANANA RD	CON	52.26										
16	5458	EGG LAGOON DRN	MANSONS RD	CON	48.96										
17	5459	PASS RIVER	CLUSKAS RD	CON	19.74										
18	5460	BARRIER CRK	MILLWOOD RD	CON	34.32										
19	5462	SEA ELEPHANT CRK T	MARSHALLS RD	RBC	26.64										
21	3542	SEA ELEPHANT CRK	RIDGES RD	CON	16.50							130,000			
24	4461	PORKY CRK FO	STRICKLAND RD	CON	9.68										
27	5461	SEA ELEPHANT CRK T	MARSHALLS RD	CON	12.88										
28	5463	PORKY TRIB	MUNRO RD	CON	19.75										
29	5464	PUNCHBOWL CRK	RIDGES RD	CON	13.64						130,000				
30		CUMBERLAND CRK	REEDS RD	CON	12.50										
32	4517	PORKY CRK	UNNAMED RD	TIM	29.26										
33		ETTRICK TRIB	MT STANLEY LOOP RD	RCP											
34		KAREEN DRAIN	HAINES RD	RCP											
35		ETTRICK TRIB	KENTFORD RD	RCP											
37		PORKY CK DRAIN	FRAZER RD	CON	16.56										

Drainage Renewal Program

ID No.	Road Name	From	Dist from Origin	Type	Length	Condition	Replace. Cost	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
	TOTALS							101,135	100,463	101,037	34,057	36,298	36,004	35,425	36,268	36,151	37,397
18	Bischoffs Rd	KI Main Rd	260	AR300	7.3	4.0	2,120			2,120							
19	Bischoffs Rd	KI Main Rd	350	E375	7.3	4.0	2,398			2,398							
23	Bold Head Rd	Yarra Ck Rd Junc	340	AR375	14.6	5.0	4,796	4,796									
24	Bold Head Rd	Yarra Ck Rd Junc	370	AR300	14.6	5.0	4,240	4,240									
26	Bold Head Rd	Yarra Ck Rd Junc	800	AR375	7.3	5.0	2,398	2,398									
27	Bold Head Rd	Yarra Ck Rd Junc	1,460	AR375	7.3	5.0	2,398	2,398									
29	Bold Head Rd	Yarra Ck Rd Junc	1,610	AR375	14.6	5.0	4,796	4,796									
30	Bold Head Rd	Yarra Ck Rd Junc	1,690	AR475	7.3	5.0	2,928	2,928									
31	Bold Head Rd	Yarra Ck Rd Junc	2,020	AR700	14.6	5.0	8,601	8,601									
32	Bold Head Rd	Yarra Ck Rd Junc	2,670	AR375	7.3	5.0	2,398	2,398									
33	Bold Head Rd	Yarra Ck Rd Junc	2,760	AR375	7.3	5.0	2,398	2,398									
71	Brumbys Rd	Nth Pegarah Rd	10	AR300	7.3	4.0	2,120			2,120							
77	Brumbys Rd	Nth Pegarah Rd	1,820	AR300	7.3	4.0	2,120			2,120							
78	Brumbys Rd	Nth Pegarah Rd	1,860	AR300	7.3	4.0	2,120			2,120							
79	Brumbys Rd	Nth Pegarah Rd	2,060	AR375	7.3	4.0	4,796			4,796							
80	Brumbys Rd	Nth Pegarah Rd	2,530	AR300	7.3	4.0	2,120			2,120							
84	Brumbys Rd	Nth Pegarah Rd	3,730	AR300	7.3	4.0	2,120			2,120							
132	East Wickham Rd	KI Main Rd	270	P300	7.3	4.0	2,120			2,120							
133	East Wickham Rd	KI Main Rd	750	P300	7.3	4.0	2,146			2,146							
134	East Wickham Rd	KI Main Rd	980	P600	7.3	4.0	4,297			4,297							
135	East Wickham Rd	KI Main Rd	1,110	P300	7.3	4.0	2,120			2,120							
136	East Wickham Rd	KI Main Rd	1,290	P300	7.3	4.0	2,146			2,146							
137	East Wickham Rd	KI Main Rd	1,450	P300	7.3	4.0	2,146			2,146							
138	East Wickham Rd	KI Main Rd	1,630	P300	7.3	4.0	2,172			2,172							
139	East Wickham Rd	KI Main Rd	1,680	P300	7.3	4.0	2,146			2,146							
140	East Wickham Rd	KI Main Rd	1,990	P375	7.3	4.0	2,398			2,398							
141	East Wickham Rd	KI Main Rd	2,160	P375	7.3	4.0	2,398				2,398						
142	East Wickham Rd	KI Main Rd	2,370	P300	7.3	4.0	2,120				2,120						
143	East Wickham Rd	KI Main Rd	2,550	P600	7.3	4.0	8,542				8,542						
144	East Wickham Rd	KI Main Rd	2,870	P375	7.3	4.0	2,398				2,398						
145	East Wickham Rd	KI Main Rd	3,010	P225	7.3	4.0	1,640				1,640						
146	East Wickham Rd	KI Main Rd	3,290	P300	7.3	4.0	2,120				2,120						
147	East Wickham Rd	KI Main Rd	3,220	P300	7.3	4.0	2,120				2,120						
148	East Wickham Rd	KI Main Rd	3,480	P300	7.3	4.0	2,120				2,120						
149	East Wickham Rd	KI Main Rd	3,540	P300	7.3	4.0	2,120				2,120						
150	East Wickham Rd	KI Main Rd	3,700	P300	7.3	4.0	2,120				2,120						
151	East Wickham Rd	KI Main Rd	4,580	P300	7.3	4.0	2,120				2,120						
152	East Wickham Rd	KI Main Rd	5,090	P300	7.3	4.0	2,120				2,120						
153	East Wickham Rd	KI Main Rd	5,280	P300	7.3	4.0	2,120				2,120						

Drainage Renewal Program (cont.)

ID No.	Road Name	From	Dist from Origin	Type	Length	Condition	Replace. Cost	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
	TOTALS							101,135	100,463	101,037	34,057	36,298	36,004	35,425	36,268	36,151	37,397
154	East Wickham Rd	KI Main Rd	5,450	P300	7.3	4.0	2,120					2,120					
155	East Wickham Rd	KI Main Rd	5,630	P300	7.3	4.0	2,120					2,120					
156	Fraser Rd	KI Main Rd	120	P375	7.3	4.0	2,424					2,424					
157	Fraser Rd	KI Main Rd	290	P375	7.3	4.0	2,424					2,424					
158	Fraser Rd	KI Main Rd	570	P375	7.3	4.0	2,450					2,450					
159	Fraser Rd	KI Main Rd	1,000	P450	7.3	4.0	5,838					5,838					
160	Fraser Rd	KI Main Rd	1,130	P450	7.3	4.0	2,919					2,919					
161	Fraser Rd	KI Main Rd	1,570	P375	7.3	4.0	2,424					2,424					
162	Fraser Rd	KI Main Rd	1,860	P375	7.3	4.0	2,398					2,398					
163	Fraser Rd	KI Main Rd	2,340	P375	7.3	4.0	2,424					2,424					
164	Fraser Rd	KI Main Rd	2,770	P300	7.3	4.0	2,120					2,120					
165	Fraser Rd	KI Main Rd	3,040	P300	7.3	4.0	2,120					2,120					
166	Fraser Rd	KI Main Rd	3,360	P300	7.3	4.0	2,120					2,120					
167	Fraser Rd	KI Main Rd	3,800	P375	7.3	4.0	2,398					2,398					
168	Fraser Rd	KI Main Rd	4,100	B1900/1200	7.3	4.0	31,208						31,208				
169	Fraser Rd	KI Main Rd	4,860	P375	7.3	4.0	2,398						2,398				
170	Fraser Rd	KI Main Rd	5,230	P375	7.3	4.0	2,398						2,398				
171	Fraser Rd	KI Main Rd	5,350	P300	7.3	4.0	2,146							2,146			
172	Fraser Rd	KI Main Rd	5,820	P375	7.3	4.0	2,424							2,424			
173	Fraser Rd	KI Main Rd	6,170	P375	7.3	4.0	2,450							2,450			
174	Fraser Rd	KI Main Rd	6,410	P375	7.3	4.0	2,398							2,398			
175	Fraser Rd	KI Main Rd	6,710	P375	7.3	4.0	2,450							2,450			
176	Fraser Rd	KI Main Rd	7,310	P600	9.8	4.0	5,721							5,721			
177	Fraser Rd	KI Main Rd	7,590	P375	7.3	4.0	2,450							2,450			
178	Fraser Rd	KI Main Rd	7,780	P300	7.3	4.0	2,172							2,172			
179	Fraser Rd	KI Main Rd	8,640	P300	7.3	4.0	2,146							2,146			
180	Fraser Rd	KI Main Rd	8,880	P375	7.3	4.0	2,424							2,424			
181	Fraser Rd	KI Main Rd	9,130	P375	9.8	4.0	3,249							3,249			
182	Fraser Rd	KI Main Rd	9,240	P375	7.3	4.0	2,450							2,450			
183	Fraser Rd	KI Main Rd	9,450	P450	7.3	4.0	2,945							2,945			
184	Fraser Rd	KI Main Rd	9,830	P300	7.3	4.0	2,120								2,120		
185	Fraser Rd	KI Main Rd	10,000	P300	7.3	4.0	2,120								2,120		
186	Fraser Rd	KI Main Rd	10,110	P375	7.3	4.0	2,398								2,398		
187	Fraser Rd	KI Main Rd	10,340	P300	7.3	4.0	2,172								2,172		
188	Fraser Rd	KI Main Rd	10,410	P300	7.3	4.0	2,120								2,120		
189	Fraser Rd	KI Main Rd	10,480	P450	7.3	4.0	2,945								2,945		
190	Fraser Rd	KI Main Rd	10,660	P375	7.3	4.0	2,398								2,398		

Drainage Renewal Program (cont.)

ID No.	Road Name	From	Dist from Origin	Type	Length	Condition	Replace. Cost	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
	TOTALS							101,135	100,463	101,037	34,057	36,298	36,004	35,425	36,268	36,151	37,397
191	Fraser Rd	KI Main Rd	10,800	P450	7.3	4.0	2,945								2,945		
192	Fraser Rd	KI Main Rd	11,150	P375	7.3	4.0	2,398								2,398		
193	Fraser Rd	KI Main Rd	9,960	P300	7.3	4.0	2,120								2,120		
194	Fraser Rd	KI Main Rd	11,640	P375	7.3	4.0	2,398								2,398		
195	Fraser Rd	KI Main Rd	11,940	P450	7.3	4.0	2,945								2,945		
196	Fraser Rd	KI Main Rd	12,080	P600	7.3	4.0	4,271								4,271		
197	Fraser Rd	KI Main Rd	12,440	P450	7.3	4.0	2,919								2,919		
198	Fraser Rd	KI Main Rd	13,300	P375	7.3	4.0	2,398									2,398	
199	Fraser Rd	KI Main Rd	13,710	P375	7.3	4.0	2,450									2,450	
200	Fraser Rd	KI Main Rd	14,120	P450	7.3	4.0	2,919									2,919	
201	Fraser Rd	KI Main Rd	14,500	P375	7.3	4.0	2,398									2,398	
202	Fraser Rd	KI Main Rd	14,920	P300	7.3	4.0	2,172									2,172	
203	Fraser Rd	KI Main Rd	15,050	P300	7.3	4.0	2,172									2,172	
204	Fraser Rd	KI Main Rd	15,160	P300	7.3	4.0	2,172									2,172	
205	Fraser Rd	KI Main Rd	15,450	P375	7.3	4.0	2,398									2,398	
206	Fraser Rd	KI Main Rd	15,830	P375	7.3	4.0	2,398									2,398	
207	Fraser Rd	KI Main Rd	16,060	P375	7.3	4.0	2,424									2,424	
208	Fraser Rd	KI Main Rd	16,140	P375	7.3	4.0	2,450									2,450	
209	Fraser Rd	KI Main Rd	16,490	P375	7.3	4.0	2,450									2,450	
210	Fraser Rd	KI Main Rd	16,730	P375	7.3	4.0	2,450									2,450	
211	Fraser Rd	KI Main Rd	16,820	P375	7.3	4.0	2,450									2,450	
212	Fraser Rd	KI Main Rd	17,020	P375	7.3	4.0	2,450									2,450	
213	Fraser Rd	KI Main Rd	17,770	P375	7.3	4.0	2,450										2,450
214	Fraser Rd	KI Main Rd	18,010	P600	7.3	4.0	4,323										4,323
215	Fraser Rd	KI Main Rd	18,120	P450	7.3	4.0	2,971										2,971
216	Fraser Rd	KI Main Rd	18,670	P450	7.3	4.0	2,945										2,945
217	Fraser Rd	KI Main Rd	18,870	P300	7.3	4.0	2,146										2,146
218	Fraser Rd	KI Main Rd	19,070	P375	7.3	4.0	2,424										2,424
219	Fraser Rd	KI Main Rd	19,280	P300	7.3	4.0	2,146										2,146
220	Fraser Rd	KI Main Rd	19,470	P375	7.3	4.0	2,424										2,424
221	Fraser Rd	KI Main Rd	19,600	P300	7.3	4.0	2,146										2,146
222	Fraser Rd	KI Main Rd	19,810	P600	7.3	4.0	4,297										4,297
223	Fraser Rd	KI Main Rd	20,280	P300	7.3	4.0	2,146										2,146
224	Fraser Rd	KI Main Rd	20,610	P375	7.3	4.0	2,424										2,424
225	Fraser Rd	KI Main Rd	21,520	P375	7.3	4.0	2,424										2,424
245	Fraser Rd	KI Main Rd	21,070	P300	7.4	4.0	2,131										2,131

Drainage Renewal Program (cont.)

ID No.	Road Name	From	Dist from Origin	Type	Length	Condition	Replace. Cost	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
	TOTALS							101,135	100,463	101,037	34,057	36,298	36,004	35,425	36,268	36,151	37,397
247	Grahams Rd	KI Main Rd	196	AR300	7.3	5.0	2,120	2,120									
248	Grahams Rd	KI Main Rd	400	AR300	7.3	5.0	2,146	2,146									
249	Grahams Rd	KI Main Rd	550	AR600	7.3	5.0	4,273	4,273									
250	Grahams Rd	KI Main Rd	657	AR300	7.3	5.0	2,120	2,120									
251	Grahams Rd	KI Main Rd	844	AR300	7.3	5.0	2,120	2,120									
252	Grahams Rd	KI Main Rd	1,411	AR375	7.3	5.0	4,796	4,796									
253	Grahams Rd	KI Main Rd	1,620	AR700	7.3	5.0	8,601	8,601									
254	Grahams Rd	KI Main Rd	1,657	AR300	7.3	5.0	2,120	2,120									
256	Grahams Rd	KI Main Rd	2,260	AR300	7.3	5.0	2,120	2,120									
257	Grahams Rd	KI Main Rd	2,424	AR375	7.3	5.0	2,398	2,398									
258	Grahams Rd	KI Main Rd	2,817	AR300	7.3	5.0	2,120	2,120									
259	Grahams Rd	KI Main Rd	3,036	AR300	7.3	5.0	2,120	2,120									
260	Grahams Rd	KI Main Rd	3,155	AR300	7.3	5.0	2,120	2,120									
261	Grahams Rd	KI Main Rd	3,452	AR375	7.3	5.0	2,398	2,398									
262	Grahams Rd	KI Main Rd	3,706	AR300	9.8	5.0	2,826	2,826									
264	Grahams Rd	KI Main Rd	4,109	AR300	7.3	5.0	2,120	2,120									
266	Grahams Rd	KI Main Rd	4,255	AR300	9.8	5.0	2,826	2,826									
301	Grassy Rd	South Rd	4,940	E300	7.3	5.0	2,108	2,108									
305	Grassy Rd	South Rd	5,870	E225	7.3	5.0	1,666	1,666									
405	Kentford Rd	Grassy Rd	2,740	AR375	7.3	5.0	2,398	2,398									
556	Millwood Rd	Forrest St	11,290	AR300	7.3	5.0	2,120	2,120									
557	Millwood Rd	Forrest St	11,690	AR600	7.3	5.0	4,273	4,273									
568	Mount Stanley Rd	KI Main Rd	1,610	AR600	7.3	5.0	4,273	4,273									
570	Mount Stanley Rd	KI Main Rd	1,990	AR900	9.8	5.0	26,547		26,547								
571	Mount Stanley Rd	KI Main Rd	2,160	AR375	9.8	5.0	3,197		3,197								
572	Mount Stanley Rd	KI Main Rd	2,200	AR600	9.8	5.0	11,395		11,395								
575	Mount Stanley Rd	KI Main Rd	3,320	AR300	9.8	5.0	2,826		2,826								
577	Mount Stanley Rd	KI Main Rd	4,350	AR600	9.8	5.0	5,697		5,697								
578	Mount Stanley Rd	KI Main Rd	4,570	AR600	9.8	5.0	5,697		5,697								
579	Mount Stanley Rd	KI Main Rd	4,660	AR600	9.8	5.0	5,697		5,697								
580	Mount Stanley Rd	KI Main Rd	4,930	AR450	12.2	5.0	4,865		4,865								
581	Mount Stanley Rd	KI Main Rd	5,070	AR600	12.2	5.0	7,122		7,122								
582	Mount Stanley Rd	KI Main Rd	5,240	AR375	7.3	5.0	2,398		2,398								
583	Mount Stanley Rd	KI Main Rd	5,430	AR375	7.3	5.0	2,398		2,398								
584	Mount Stanley Rd	KI Main Rd	4,670	AR375	7.3	5.0	2,398		2,398								

Drainage Renewal Program (cont.)

ID No.	Road Name	From	Dist from Origin	Type	Length	Condition	Replace. Cost	21\22	22\23	23\24	24\25	25\26	26\27	27\28	28\29	29\30	30\31
	TOTALS							101,135	100,463	101,037	34,057	36,298	36,004	35,425	36,268	36,151	37,397
585	Mount Stanley Rd	KI Main Rd	5,820	AR375	7.3	5.0	2,398		2,398								
587	Mount Stanley Rd	KI Main Rd	6,230	AR375	7.3	5.0	2,398		2,398								
592	Mount Stanley Rd	KI Main Rd	7,070	AR600	7.3	5.0	4,273		4,273								
594	Mount Stanley Rd	KI Main Rd	7,500	AR375	7.3	5.0	2,398		2,398								
597	Mount Stanley Rd	KI Main Rd	7,840	AR375	7.3	5.0	2,398		2,398								
844	Skipworths Rd	Bold Head Rd	250	AR300	7.3	5.0	2,120		2,120								
848	Skipworths Rd	Bold Head Rd	860	AR300	7.3	5.0	2,120		2,120								
849	Skipworths Rd	Bold Head Rd	1,030	AR300	7.3	5.0	2,120		2,120								
850	Skipworths Rd	Bold Head Rd	1,140	AR300	7.3	5.0	2,120			2,120							
851	Skipworths Rd	Bold Head Rd	1,500	AR300	7.3	5.0	2,120			2,120							
861	South Rd	KI Main Rd	7,630	E300	7.3	5.0	2,108			2,108							
865	South Rd	KI Main Rd	14,190	E300	7.3	5.0	2,108			2,108							
870	South Rd	KI Main Rd	17,720	E300	7.3	5.0	2,108			2,108							
873	South Rd	KI Main Rd	18,250	E300	7.3	5.0	2,108			2,108							
881	South Rd	KI Main Rd	21,580	E300	7.3	5.0	6,324			6,324							
889	South Rd	KI Main Rd	23,680	E300	7.3	5.0	2,108			2,108							
903	South Yellow Rock Rd	KI Main Rd	340	E225	7.3	5.0	1,640			1,640							
967	Triffetts Rd	Fraser Rd	780	E300	7.3	5.0	2,108			2,108							
991	Yarra Ck Rd	KI Main Rd	3,040	AR600	7.3	5.0	8,546			8,546							
995	Yarra Ck Rd	KI Main Rd	4,970	AR300	7.3	5.0	4,240			4,240							
996	Yarra Ck Rd	KI Main Rd	5,390	AR300	7.3	5.0	4,240			4,240							
997	Yarra Ck Rd	KI Main Rd	5,600	AR450	7.3	5.0	5,838			5,838							
998	Yarra Ck Rd	KI Main Rd	5,930	AR450	7.3	5.0	5,838			5,838							
999	Yarra Ck Rd	KI Main Rd	6,270	AR300	7.3	5.0	2,120			2,120							
1,000	Yarra Ck Rd	KI Main Rd	6,370	AR300	7.3	5.0	2,120			2,120							
2,024	South Yellow Rock Rd	KI Main Rd	3,110	E225	7.3	5.0	1,640			1,640							