Roads Asset Management Plan

2020

Lifestyle Capital of Victoria

Document Control	Asset Management Plan

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1 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

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

This asset management plan details information about road assets. Since road asset management forms a fundamental part of transport system in Frankston, it is necessary to have an effective, well maintained system to manage these assets with a holistic approach of improving the condition of road network whilst meeting community expectations and catering for diverse future demands.

This asset management plan contains detail of the roads; maintenance and management activities; risk considerations and the funding requirements to continue providing the service in the most cost effective manner over the 10 year planning period.

1.2 Asset Description

Road assets represent a significant proportion of Council investments. Road assets are valued at $398,893,811 (valued as at June 30 2019) gross replacement value, representing approximately 38% of Council's infrastructure asset portfolio.

These assets include:

Major Roads – 83km

Collector Road – 52km

Industrial Roads – 22km

Local Access Roads – 483km

Laneway / Right of Way – 7km

Fire Tracks – 0.6km

Key Central Activity Area (CAA) Roads – 5km

Service Roads – 23km

Unsealed Roads – 30km

1.3 Levels of Service

Council's current maintenance levels are defined under Council's Road Management Plan 2019 (RMP).

Council's 2020-2024 Service Plans are currently being developed and expected to be endorsed by the Council in February 2020.

Our present funding levels will then be reviewed in line with endorsed Level of Service of Roads.

1.4 Future Demand

The main demands for new services are created by:

- Increased developments from population growth
- Growth in industrial areas
- Traffic trends and travel patterns
- Changes in demography
- Changes in transport trends

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

- Cost effective management of repairs and remedial works
- Targeted upgrade and renewal of infrastructure to align with Council Strategic direction and focus and address areas where capacity issues have been identified.

1.5 Financial Summary

What we will do

Estimated available funding for this period is $7,080,000 or $708,000 on average per year as per the Long Term Infrastructure Plan forecast.

This is 110.7% of the cost to sustain the current level of service at the lowest lifecycle cost meaning that Council can continue to maintain current road management standards for the short-medium term.

The infrastructure reality is that only what is funded in the Long Term Financial Plan can be provided. The emphasis of the Asset Management Plan is to communicate the consequences that this will have on the service provided and risks, so that decision making is "informed".

The allocated funding indicates a surplus of $681,800 on average per year of the projected expenditure required to provide services in the AM Plan compared with planned expenditure currently included in the

Long Term Financial and Infrastructure Plans. This is shown in the figure below.

Projected Operating and Capital Expenditure

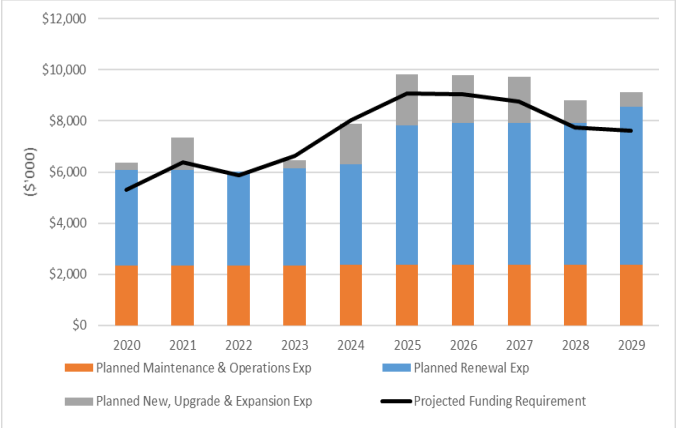


Figure Values are in current (real) dollars.

We plan to provide Roads services for the following:

- Operation, maintenance, renewal and upgrade of to meet service levels set by in annual budgets.
- Major works within the 10-year planning period.

Managing the Risks

Our present funding levels are sufficient to continue to manage risks in the medium term, at current levels of service.

If funding levels cannot be maintained at the level contained within this Plan, the main consequences will result in:

Reduced maintenance and operation standards,

Adverse influence on customer satisfaction levels

Increased risk and liability exposure resulting from roads in a poor condition.

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

- Undertaking comprehensive service planning and develop agreed and costed levels of service to ensure Council resource are efficiently allocated at lowest lifecycle cost.
- Enhancements and development of asset information and the integration with other systems to facilitate accurate tracking and recording of lifecycle costs and considerations.
- Undertake a four yearly review of this asset management plan to ensure alignment with Council strategic planning.
- Undertake a four yearly condition audit cycle of Council's road assets to inform long term renewal forecasting and capital works.

1.6 Asset Management Practices

Our systems to manage assets include:

- INFOR Public Sector Asset management System (FAMIS)
- KERN Enterprise Mobility Solution
- MAPINFO Geographical Information System
- IntraMaps 9 Geographical Information System
- INFOR Pathway Public Sector (property and customer request management)
- TECHNOLOGYONE Enterprise Suite (financial system)
- SMEC – Pavement Management System

SMEC Pavement Management System is used to identify asset renewals.

1.7 Monitoring and Improvement Program

This asset management plan has identified a number of different improvement actions across the life cycle of road assets under following themes.

- Integrity and reliability of asset information.
- Asset system enhancements.
- Process and procedural improvement.

Progress monitoring of the improvement plan is to be undertaken by the Strategic Asset Management Team.

2. INTRODUCTION

2.1 Background

This asset management plan communicates the actions required for the management of roads including services provided, compliance with regulatory requirements, and funding needed to provide the required levels of service over a 10-year planning period.

The asset management plan is to be read with the Asset Management Policy and Asset Management Strategy and the following key planning documents:

- Council Plan 2017 – 2021
- Road Management Plan 2019
- State of the Assets Report 2014
- Integrated Transport Strategy 2013
- Contributory Schemes Policy 2019
- Road Management Act 2004 Code of Practice – Operational Responsibility for Public Roads 2017
- VicTrack Rail Maintenance Guidelines 2016

The road assets covered by this asset management plan are shown in Table 2.1.1.

Table 2.1.1: Assets covered by this Plan

Road Hierarchy	Quantity (Km)
Major Roads	83.3
Collector Roads	51.5
Industrial Roads	22.3
Local Access Roads	482.7
Laneway / Right of Way	6.2
Fire Tracks	0.6
Key Central Activity Area (CAA) Roads	4.4
Service Roads	23.2
Unsealed Roads	30.8
Total Road Network (as at June 2019)	**705.0 km**

Assets that are not covered in this Plan but may be considered in future revisions of this Plan include:

- Bridges and pedestrian structures
- Carparks and roadways located within recreational reserves (including foreshore carparks) and Council owned or operated community facilities
- Common property and private roads
- Kerb and channel
- Non-standard street lighting

- Road reserves with no constructed vehicular access
- Roadside furniture and vegetation (including street trees)
- Safety devices and barrier rails
- Signage
- Traffic management devices

Council assets are managed by key stakeholders as described in Council's Strategic Asset Management Governance Structure in accordance with the Asset Management Policy, Strategy and Plans. The roles and responsibilities of key internal and external stakeholders are shown below in Table 2.1.2.

Table 2.1.2: Key Stakeholders in Roads Asset Management

Stakeholder	*Roles*	*Responsibility*
INTERNAL:		
Councillors	• Act as custodians and stewards of community assets. • Be aware of best practice asset management principles. • Ensure commitment to sustainable asset management principles is incorporated in the Council Plan. • Ensure that legal and statutory compliance obligations are met. • Approve Council's Asset Management Policy, Strategy and Plans. • Approve the alteration and/or rationalization of under-utilized or surplus Council assets. • Ensure appropriate financial resources for non-discretionary asset management activities are maintained in accordance with funding strategies of the LTFP & LTIP.	• Adoption of Asset Management Policy, Asset Management Strategy and Asset Management Plans. • Approval of budget allocations that ensure appropriate non-discretionary funding provision for renewal, maintenance and operation of Council assets in the Long Term Financial Plan (LTFP) and Long Term Infrastructure Plan (LTIP).
CEO and Executive Management Team	• Act as custodians and stewards of community assets. • Be aware of best practice asset management principles. • Ensure that legal and statutory compliance obligations are met. • Oversee the implementation of Council's Asset Management Policy, Strategy and Plans with agreed resources. • Facilitate the effective operation of Council's Strategic Asset Management Group (SAMT). • Supports asset management requirements in relevant staff position descriptions and performance plans, and provide asset management learning and development programs. • Ensure that accurate and reliable information is presented to Council for decision-making. • Ensure that Councillors and staff are adequately trained and skilled in sustainable financial, environmental and asset management practices.	• Responsible for key business issues associated with asset management including approving budgetary strategies, oversight of key risks and provides strategic direction. • Provide advice to Council on initiatives requiring Council endorsement. • Guide Council's decision making with respect to Life Cycle Costing, the Long Term Infrastructure Plan, Long Term Financial Plan and Service Plans • Ensure Council's asset management practices and decision making aligns with the Council Vision and Asset Management Policy.

Stakeholder	*Roles*	*Responsibility*
INTERNAL:		
Audit and Risk Committee	• Ensures municipal assets are compliant with relevant legislation and regulations; • Supports Council to be responsive to changes in legislation and regulations and provide appropriate funding to ensure compliance occurs in a timely manner; • Oversees the maintenance of road related assets to ensure ongoing compliance with the Road Management Plan. • Ensures the valuation of Council assets will be in accordance with the accounting standards applicable for local governments within the State of Victoria. • Monitors compliance with insurance obligations and ensures information regarding asset valuations and insurance replacement values are linked to the asset register	• Monitors strategic asset management risks and treatment plans identified in Asset Management Plans • Ensures Council's exposure to risk is minimised in regard to asset failures, property risk exposure, damage and loss • Oversees the maintenance of road related assets to ensure ongoing compliance with the Road Management Plan. • Monitors compliant asset accounting and valuations in accordance with applicable Australian accounting standards. • Ensures Council assets comply with insurance, legislative and regulatory requirements.
Strategic Asset Management Leadership Team	• Have a broad understanding of asset management issues and the continuous improvement approach being adopted; • Support the delivery of the Asset Management Policy, Strategy and Plans; • Monitor, evaluate and assist in the delivery of asset management improvement projects/ actions; • Review and implement, where possible, external audit recommendations relating to asset management; • Raises awareness throughout the organisation of the benefits of committing to a strategic asset management approach; • Identify opportunities and support development for improvement in relation to the planning, development and management of assets; • Advocate for improved strategic asset management outcomes. • Recommends budget allocations for renewal expenditure as per Council's LTFP & LTIP. • Approves forward schedule of asset audits and AM Plan reviews.	• Provide strategic direction, knowledge sharing and monitor the progress of the Asset Management Strategy Improvement Plan • Supports and monitors the implementation progress of the Asset Management Strategy and performance. • Facilitates the rollout of the Frankston Asset Management Information System and ongoing enhancements. • Increase awareness of the importance of integrated service planning and asset management across all levels of the organisation and Council's Risk & Audit Committee. • Oversee Council assets are proactively inspected to monitor condition, levels of service and ensure Council assets are fit for purpose.

Stakeholder	*Roles*	*Responsibility*
INTERNAL:		
Manager Sustainable Assets	• Ensure that the Asset Management Plan aligns with the Asset Management Policy, Strategy and relevant Service Plan for appropriate implementation. • Communicate the long term financial requirements of the assets to EMT, CEO and Council for strategic and financial planning purposes. • Management of this Asset Management Plan including periodic updates and revisions to maintain its relevance with internal and external changes and ensure alignment with the relevant Service Plan. • Ensures the strategic management of stormwater assets, condition monitoring, asset management system, renewal programming. • Drive Best Practice Asset Management within the organisation and provide guidance and advice to key internal stakeholders.	• Sustainable asset management and planning (including asset systems, asset data and information management). • Renewal modelling and program development.
Manager Engineering Services	• Conduct network level planning and investigations to facilitate development of upgrade and new programs. • Participate in the review and update of the Service Plan and Asset Management Plan and the development of Key Performance Indicators.	• Planning and investigation to develop New, Upgrade, Expansion programs. • Ensure compliance with design and construction standards. • Develop, monitor and review the Service Plan including service performance indicators.
Manager Capital Works Delivery	• Responsible for scheduling and delivery of the capital works program for the asset class.	• Asset delivery according to the annual capital works program.
Manager Operations	• Responsible for provision of the agreed maintenance and operational levels and standards for the assets in consideration of long term sustainability. • Participate in the review and update of the Service Plan and Asset Management Plan and the development of Key Performance Indicators to measure performance.	• Asset maintenance, inspection and repairs. • Develop and deliver asset maintenance plans.
Manager Finance	• Ensure financial resourcing is available to deliver Council Plan, Strategic Resource Plan, and Community Plan. • Prepare and deliver Council annual budget and reporting outlining Council performance against Council Plan and Budget.	• Prepare and deliver annual budget and reporting of Council Performance. • Maintain Council financial reporting system (TechnologyOne)
EXTERNAL:		
Community members	• Beneficiaries of services provided by drainage infrastructure. • Provide input and dictate the levels of service expected from drainage infrastructure.	• The community votes in Council elections to choose councillors who will represent their voice.

Stakeholder	*Roles*	*Responsibility*
INTERNAL:		
Melbourne Water Corporation	• Manage and protect major water resources and also contribute to the provision of stormwater services and infrastructure in capacity as the statutory water authority. • Manage certain drainage infrastructure within municipal boundaries in accordance with relevant legislation.	
Other State and Federal Government Departments	• Provide information, support, guidance and funding to assist with provision and management of Council's road network (including Roads to Recovery and Black Spot funding programs). • Appoint the Committee of Management (COM) for Crown Lands, such as significant areas of foreshore.	
Service Authorities	• Provide services such as electricity, gas, water, sewer, telecommunications etc. to properties and residents. • Manage their assets and services within the road reserve. This involves maintenance, replacement and disposal of assets.	
VicRoads	• Manage and regulate the arterial road network (declared roads) in accordance with the Road Management Act and associated Codes of Practice. • Implements road safety initiatives. • Provide vehicle registration and licensing services. • Work with other transport agencies (including Local Government) to meet Victoria's transport challenges.	
VicTrack	• Own and manage transport assets such as rail buildings, signalling, track, telecommunications network etc. in accordance with the Transport Integration Act 2010. • Manage land set aside for transport purposes. • Work with transport partners including Department of Transport, Metro, Yarra Trams and V/Line to support the delivery of the Victorian Government's transport agenda.	

2.2 Goals and Objectives of Asset Ownership

Our goal in managing roads assets is to meet the level of service defined under Council's Roads Management Plan (2019) and ensure assets meet the needs of the community in terms of reliability, safety and quality.

In order to understand the community's needs and expectations, it is crucial for Council to develop levels of service through a service planning approach, with high levels of community engagement, in order to manage road assets in the most cost effective and sustainable manner possible.

The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,

- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated.

Council will follow guidelines and standards stipulated in International Infrastructure Management Manual 2015 [1] and ISO 55000[2] in managing all infrastructure assets including Roads.

2.3 Core and Advanced Asset Management

This asset management plan is prepared as a 'core' asset management plan over a 10 year planning period in accordance with the International Infrastructure Management Manual[3]. It is prepared to meet minimum legislative and user requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the system or network level.

Future revisions of this Asset Management Plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering detailed asset information to provide for activities and programs to meet agreed service levels in a financially sustainable manner at an individual asset level.

[1] Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13
[2] ISO 55000 Overview, principles and terminology
[3] IPWEA, 2015, IIMM.

3. LEVEL OF SERVICE

3.1 Community Satisfaction

Frankston City Council participates in the state-wide Local Government Community Satisfaction Survey conducted by an independent firm on an annual basis. The primary objective of the survey is to assess the performance of the organisation across a range of measures to gain insight into ways to improve service delivery and efficiency for the community. This telephone survey polls a sample of 400 residents on their level of satisfaction with Council's services.

Table 3.1.1 below outlines the community's overall satisfaction with several service measures relevant to the roads managed by Council.

Table 3.1.1: Community Satisfaction Survey Results 2012 - 2019

Performance Measure	Satisfaction Level Index Score (Out of 100)										
	2012	2013	2014	2015	2016	2017	2018	2019	FCC Average	Metro 2019	Trend
Overall Performance	62	66	63	62	61	56	55	59	**60.5**	**67**	↓
Liveability	80	79	82	92	90	87	91	89	**86.3**	**N/A**	↑
Safety	52	55	57	57	58	48	51	55	**55.8**	**N/A**	↓
Image[4]	63	65	65	61	60	59	62	72	**63.4**	**N/A**	↑
Condition of local streets and footpaths[5]	61	62	65	64	63	59	64	66	**63.0**	**69**	↑

*Note: * denotes that the survey did not include these performance measures and no data is available.*

Over the course of eight years, the satisfaction levels with regards to Council's road assets have been trending upward from 2012 to 2019.

Community satisfaction is further evaluated from analysis of the following:

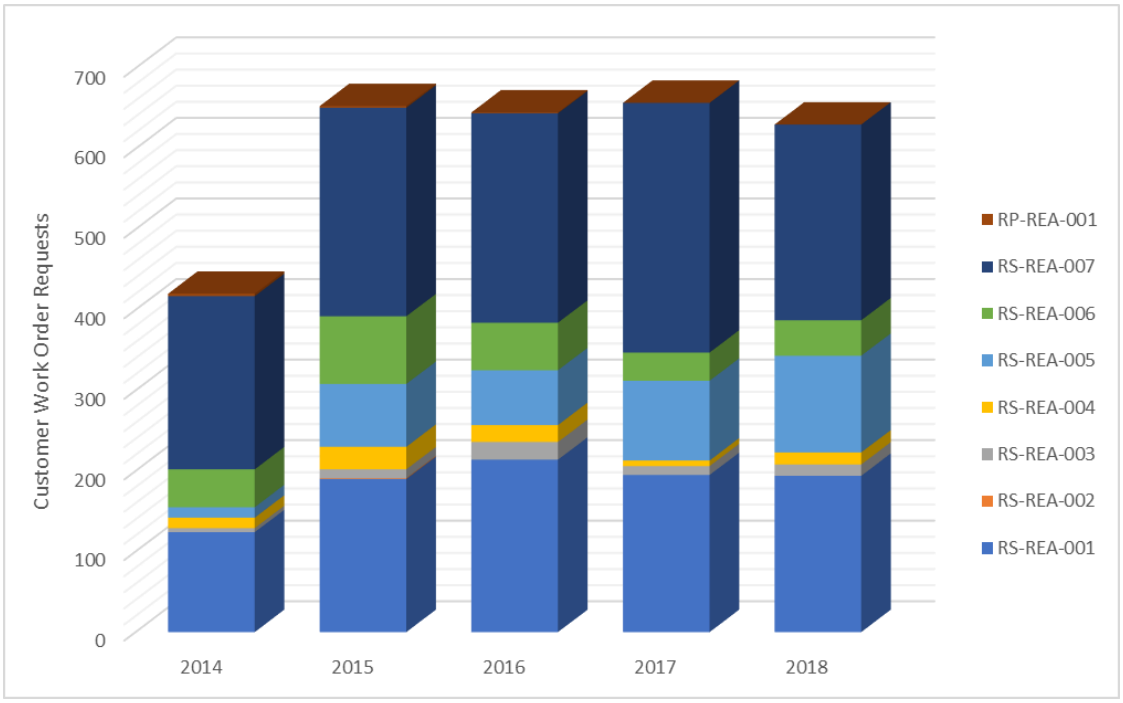
- Public feedback on the amendment to Council's Road Management Plan (2015 and 2019); and
- Recorded customer service requests over the previous five years.

Overall satisfaction or dissatisfaction is interpreted from annual increase or decrease in roads related customer service requests to Council directly as well as those directly to VICSES. Further to these measures, the change in the annual number of requests resolved on-time.

The number of work orders for sealed and unsealed roads as a result of a customer request are shown below in Figure 3.1.2 and 3.1.3 respectively.

[4] For 2018 and 2019, the "Attractive" measure was used from the Tailored Questions as "Image" was not included in the survey for these years.
[5] 'Condition of local streets and footpaths' performance measure was changed in 2015 to 'Condition of sealed local roads in your area'

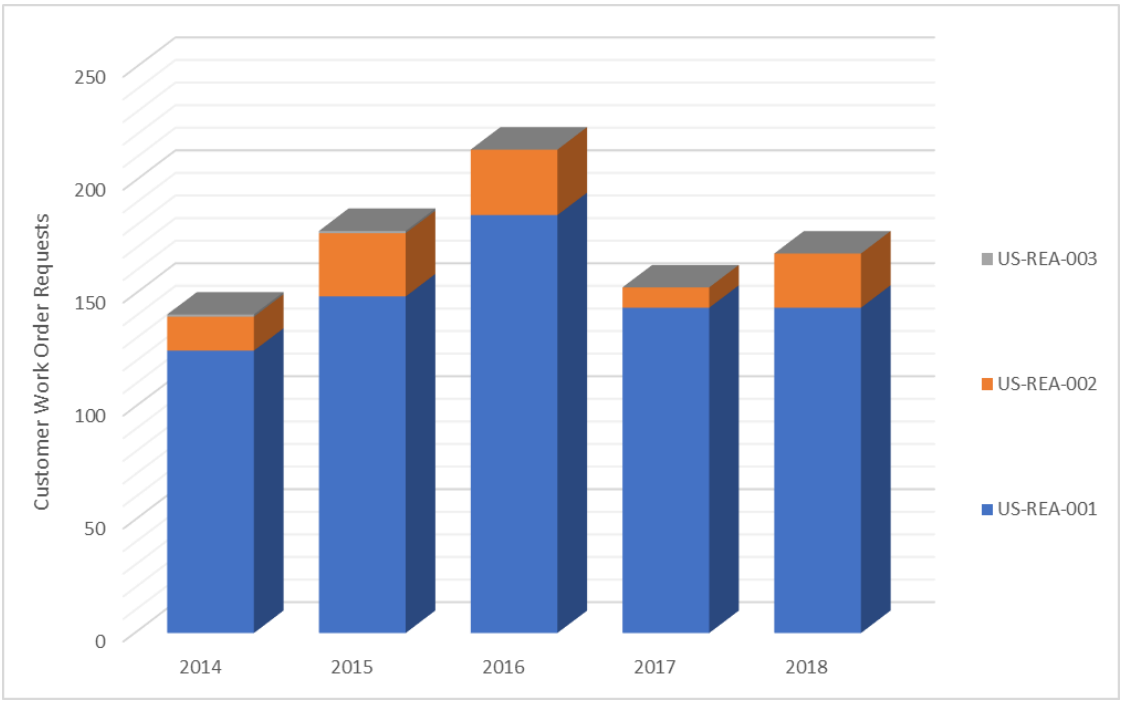
Figure 3.1.2: Sealed Road Work Orders (Community Requests)



Since the rollout of FAMIS works management in 2014, the graph shows a consistent number of sealed road work orders being generated as a result of requests from members of the community, typically ranging between 600 and 660 requests per annum.

"Pothole Repair" (RS-REA-001) and "Clear Debris/Obstructions" requests are the most common types of sealed road requests accounting for approximately 75% of sealed road requests each year.

Figure 3.1.3: Unsealed Road Work Orders (Community Requests)



The average number of unsealed road work orders as a result of a community request is 170 per annum over the previous 5 years. Approximately 88% of these requests are for "Unsealed Surface Repair/Grading" (US-REA-001).

It is important for Council to monitor maintenance works across its road network in order to optimise existing work practices and routine maintenance (crack sealing, grading programs etc.) and to identify "hot spots" or problem areas that require capital intervention.

3.2 Strategic and Corporate Goals

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

Our vision: *"Lifestyle Capital of Victoria"*

Our mission: *"We are driven by the privilege of serving our community, and providing leadership and visionary thinking to ensure Frankston City is recognised as the Lifestyle Capital of Victoria"*

The Frankston City Council Plan 2017 – 2021 outlines long term priorities and strategies to set the direction of the organisation over a four year period.

The Council Plan defines four Long Term Community Outcomes for Frankston City which are supported by specific themes, strategic indicators and corresponding four year priorities.

The Long Term Community Outcome themes and priority actions applicable to this Plan are detailed below:

Table 3.2.1: Addressing Council Plan Themes and Priority Actions in this Plan

Theme	*Priority Action*	*How goals and objectives are addressed in this AM Plan*
1. A Planned City		
1.1 Community Infrastructure	1.1.6 Ensure community infrastructure and services match community needs	• Identify current technical and community levels of service for different Road hierarchies • Provide guidance into future service requirements based on the organisations current delivery framework and financial position. • Documentation of the future improvement actions based on the holistic approach to road asset management • Highlights the need for service planning to guide future decision making and funding allocation. • Highlights the need for improved community engagement to determine community needs and establish agreed levels of service. • Address the current structural condition of heavily trafficked roads such as Major and Collector roads and management of those roads for better performance.
2. A Liveable City		
2.2 Vibrant and Engaged	2.2.3 Engage and support Frankston City's local areas and diverse communities to optimise facility usage and enhance equitable access to services	• Detail Council's road asset management approach to enhance decision making and achieve better outcomes for current and future users. • Identify road asset maintenance requirements to continue to provide current levels of service and maintain safe infrastructure. • Identify service deficiencies from internal and external consultation to guide the development of the Improvement Plan. • Align with Council's strategic documents to work towards achieving the organisational vision and mission.

Theme	*Priority Action*	*How goals and objectives are addressed in this AM Plan*
	2.2.5 Improve the presentation and cleanliness of Frankston City	• Highlights the importance of reviewing service standards and asset intervention levels to govern maintenance and renewal planning. • Identifies the requirement of a long term strategic plan to better address the renewal needs of heavily trafficked roads.
2.3 Health and Wellbeing	2.3.3 Enhance equitable access to sport and leisure opportunities	• Highlights any gaps in the present road network that can be enhanced to provide improved accessibility to key sporting and recreational facilities within the municipality. • Ensure safe and efficient movement network for travel to sport and leisure opportunities.
4. A Well Managed City		
4.1 Services	4.1.1 Identify service assets and service levels required to meet future community needs	• Investigate service demands to determine road renewals based on necessary to meet future community needs. • Identify road rehabilitation requirements along with life cycle management approach to project Council budget requirements. • Utilise road asset structural strength modelling to determine renewal funding requirements and optimal service delivery scenario.
	4.1.2 Implement a rolling service review program	• Identifies the need to review this Plan following the completion of an asset condition audit every 4 years as per Council's AM Strategy.
4.2 Systems	4.2.3 Facilitate informed decision making through improved reporting and data management	• Document an Improvement Plan to address gaps in service delivery. • Highlight potential risks and consequences to Council from the improper management of road assets. • Informs Council's Long Term Financial Plan and Long Term Infrastructure Plan.
4.3 Resources	4.3.2 Undertake an ongoing review of Council's assets to ensure they meet community needs	• Document and analyse results from road condition audit every 4 years in line with Council's Asset Management Strategy. • Highlights the need to undertake asset useful life assessments. • Highlights the need to continue to invest in Council's Asset Management Information System and asset management practices. • Identifies the importance of service planning and ensuring Council's road management services meet community needs. • Identify the need to review Council's road asset stock and inform future road discontinuances that may be required for strategic development or risk management purposes.

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

3.3 Legislative Requirements

There are many legislative requirements relating to the management of road assets. Key requirements are listed in Table 3.3.1.

Table 3.3.1: Legislative Requirements

Legislation	*Requirement*
Crown Land (Reserves) Act 1978	Provide for the reservation of Crown Lands for certain purposes including the management of such reserves and their purposes.
Environment Protection Act 1970	A framework for the protection of the environment in Victoria, in accordance with the principals of environmental protection. Includes the establishment of environmental objectives and programs to prevent pollution and environmental damage. Applicable to roadside conservation areas.
Frankston Planning Scheme & Municipal Strategic Statement (MSS)	Provides a framework in which decisions about the use and development of land in Frankston City, and allows for the implementation of State, regional and local policies affecting land use.
Local Government Act 1989	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Planning and Environment Act 1987	Establish a framework for planning the use, development and protection of land in Victoria in the present and long-term interests of all Victorians.
Public Health and Wellbeing Act 2008	Enact a new legislative scheme which promotes and protects public health and wellbeing in Victoria.
Road Management Act 2004	Establishes a coordinated management system for public roads that will promote safe and efficient State and local public road networks and the responsible use of road reserves for other legitimate purposes, such as the provision of utility services and drainage. Defines the responsible authorities for all roads within the state. It makes Council the controlling authority for Public Local Roads, Boundary Roads and parts of Declared Roads within the municipal area and it is therefore responsible for managing the infrastructure assets within them. Establishes a statutory framework for the management of the road network which facilitates the coordination of the various uses of road reserves for roadways, pathways, drainage and infrastructure, including the construction, inspection, maintenance and repair of public roads. Sets Council's framework for the awarding of damages for economic loss and for issues relating to civil liability. Facilitated the making of Road Management Plans which intend to establish a management system for the road management functions of a road authority and to set relevant standards in relation to the performance of those road management functions.
Road Safety Act 1986 & Road Safety (Road Rules) Regulations 1999	Establishes safety requirements and general obligations of road users relating to responsible road use to provide for safe, efficient and equitable road use.
Transport Act 1983	Relates to the operation of the road network and regulation or prohibition of drainage discharge onto any road.
VicRoads Standards	Used in conjunction with Council's Standards to determine minimum standards for road construction and maintenance.

Legislation	*Requirement*
Wrongs Act 1958	The Act imposes several thresholds for the recovery of damages for economic and non-economic loss from personal injury and death in Victoria, as a result of negligence or fault. It defines Duty of Care and establishes the principles for determining negligence.
Applicable Australian Standards and Codes of Practice	Includes Codes of Practice under the Road Management Act and other relevant legislation. The Codes of Practice provide practical guidance for Council and other road authorities in the performance of their functions and duties under the Act.
All Local Laws and relevant policies of the Organisation	Construction standards, Maintenance contracts, etc.

3.4 Customer Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by organisational measures.

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

Customer levels of service measures are typically defined under the following three categories:

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/Use Is the service over or under used … *do we need more or less of these assets?*

Council have developed a catalogue of services during 2018 and have aligned service cost with these services. This has resulted in development of a robust Service Planning Framework and a service planning template in preparation for the service areas consultation, asset data input, analysis and community engagement.

Service Plans are now being developed for each service and will include relevant indicators and measures to monitor performance against community expectations. The process is being driven under guidance of the Service Planning Project Control Group and is expected to be completed by March 2020.

Council will develop organisational/technical measures which are related to the service delivery outcome (e.g. number of occasions when service is not available, percentage of road network in Very Poor/Poor/Fair or Moderate/Good/Very Good condition). Organisational measures provide a balance in comparison to the customer perception that may be more subjective and will enable Council to monitor its performance against service objectives.

It is expected that the next revision of this Plan will include customer levels of service that have been developed through Council's service planning and community engagement approach.

3.5 Technical Levels of Service

Technical Levels of Service - Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance.

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

- Operations – the regular activities to provide services (e.g. sweeping, mowing grass, inspections and patrols, 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, crack sealing, dust suppression),
- 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,),
- Upgrade/New – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road) or a new service that did not exist previously (e.g. constructing a new road).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.[6]

Council manages its road network in accordance with its Road Management Plan (2019) which sets out the maintenance and operational technical levels of service currently being implemented. These technical service standards have been revised a number of times through internal and external consultation over the last 14 years since 2005.

Maintenance and operational service standards are determined by the frequency of Routine Defect Inspections that are undertaken for different levels of Council's road hierarchy (refer section 5.1.1), intervention levels and initial assessment/rectification timeframes. Refer to Council's Road Management Plan 2019 for further details on current standards.

The road condition and utilisation (traffic) is also monitored on an ongoing basis to ensure roads are in a suitable condition and can cater for the traffic demands.

Council undertakes its asset condition audits on a 4 yearly cycle with the last road condition audit being undertaken in 2017/18. The audit involved a visual 'defect' survey across the whole network as well as Falling Weight Deflectometer (FWD) and laser profilometer testing across Major, Collector and Industrial roads throughout the City to get a thorough understanding of the roads structural condition, capacity and performance. This informs the technical levels relating to renewal/upgrade of roads throughout the municipality by ensuring the network meets certain condition or capacity standards.

Further information on the condition of Council's road network is provided is section 5. "Lifecycle Management Plan".

It is important to monitor the service levels provided regularly as these will change. The current performance is influenced by work efficiencies and technology, and customer priorities will change over time. Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

As such, Council intends to utilise Service Plans to inform the review and update of technical service standards in order to better align with community needs and expectations e.g. raising the overall condition of major and collector roads to meet expectations, increasing or decreasing inspection frequencies based on hierarchy or criticality etc.

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

4. FUTURE DEMAND

4.1 Demand Drivers

Changes arising from the potential factors affecting demand in Frankston are analysed in this section. The drivers affecting demand for road assets include population growth, social and technology changes, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices and environmental awareness.

With the prime role of providing services to the community, it is necessary to implement demand management strategies to cater for the expected changes without compromising customer satisfaction.

Population Growth

The population for Frankston City is expected to increase by 17% from 139,496 to 163,610 over the period 2016 to 2041 (25 years).

Demographic forecasting predicts an increase of 12,738 (22%) in new dwellings and developments over the 25 year period from 2016 to 2041[7], while on the other hand the Frankston Housing Strategy - 2018 estimates a requirement of approximately 8,450 new dwellings and developments will be required.

A noteworthy trend emerging from Council demographics highlights the exceptional growth in medium density housing developments over the last 25 years. The average for neighbouring local government areas is shown as 5% per annum, while Frankston has experienced grown at an average of 7% per annum for this classification of dwelling structure.

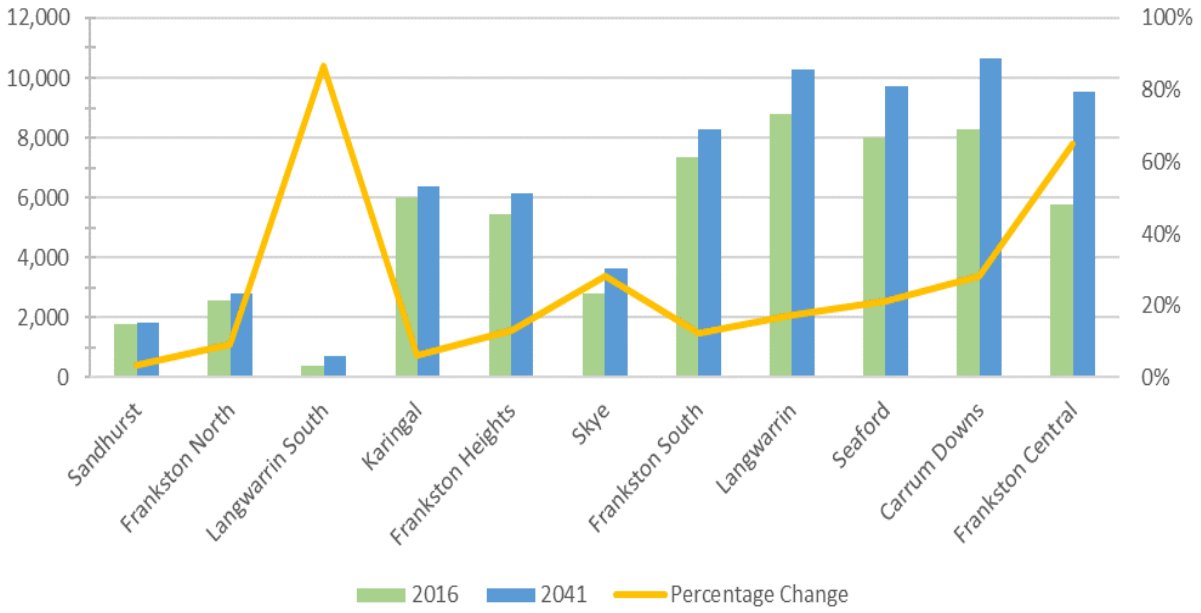
To cater for the demand driven by urban development, Council must ensure the quality of road network in conjunction with interconnectivity to the key destinations and services within the municipal network is maintained for current and future needs.

Various factors that may impact on road assets in the future as a result of population growth include:

- Residential development
- Growth in industrial areas
- Traffic trends and travel patterns
- Car ownership
- Annual vehicle usage
- Fuel prices
- Vehicle types and configurations
- Public transport

[7] Population and household forecast, 2016 to 2041, prepared by .id, the population experts, September 2018; https://home.id.com.au

Figure 4.1.1: Estimated growth in Dwellings and Developments (2016 – 2041)



Changes in Demography

Notable number of citizens aged between 65-79 years with an average annual growth of 4.14%, and people aged 55 and over representing 4.51% of the total population indicates an ageing demography in Frankston City municipality.

Change in land Use

Land use may have a dramatic impact on the road network. Changes in the Frankston Planning Scheme such as provision of zoned and serviced land for housing, employment, recreation/open space, commercial/community facilities and infrastructure[8], could likely impact transport integration and accessibility throughout the City.

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of the road network are identified in Table 4.3.

4.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 4.3.1.

[8] Frankston Planning Scheme updated on 20 September 2019

Table 4.3.1: Demand Drivers, Projections and Impact on Services

Demand factor	Present position (2016)		Projection (2041)		Impact on services
Population	143,232		163,610		• Increased traffic volume on existing roads, additional road maintenance, renewal funding demand, road upgrades and requirement for traffic calming devices. • Demand for major extensions in road network. • Service interruptions and time delays for road users due to increased traffic and works
Dwellings	57,250		69,988		• Increase in gifted roads to Council (local access roads) from new subdivisions which will increase renewal and maintenance costs towards roads.
Demographics	Population	%	Population	%	• An ageing demographic in Frankston impacts on the functionality of roads with changes to pathway widths and cross falls. • Roads must cater for elderly and vision impaired people. • Establish use of sustainable transport devices
0 – 9 years	18473 people	13.2	19,534	11.9	
10 – 19 years	16,325 people	11.7	18,762	11.5	
20 – 44 years	48,432 people	34.7	51,092	31.2	
Over 45 years	56,265 people	47.4	74,221	45.4	
Land Use	Roads within the industrial area. Collector Roads and Major Roads that connect industrial area and Arterial Roads (VicRoads).		Needs comparatively higher structural strength.		• Accelerated deterioration due to heavy vehicles • Identified heavy traffic routes needed to be upgraded to withstand higher axle loads. • Restrictions for heavy vehicles.

4.4 Demand Management Practices

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

Table 4.4.1: Demand Management Practices

Service Activity	Demand Management Practices
Variation in road user patterns (Increased Traffic)	• Promote public transport around residential & commercial areas. • Awareness programs to encourage public transport. • Introduce new or modified traffic control system at congested locations. • Renewal of roads according to the standards to cater for increased traffic loads. • Encourage the use of sustainable transport modes i.e. cycling. • Monitor changes in traffic to ensure roads meet the users' needs.
Road Renewal/Maintenance	• Assess the correct road renewal treatments to cater for vehicle use patterns. • Increase in maintenance budget in line with road network expansion. • Ensure adequate capital asset renewal funding in long term financial budget plans. • Maximise funding obtained from external grant sources for road rehabilitation.
Road use by industries.	• Seek state government funding for better management of heavy vehicle routes • Controls in place for industry areas and restrictions for heavy vehicle use on the local road network. • Support alternative delivery and access arrangement for local business activities.
Customer Requests	• Analyse customer requests to optimise the use and performance of existing road services and look for non-asset based solutions to meet demand for services.

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the Council plans to manage and operate the assets at the agreed levels of service while managing life cycle costs.

5.1 Background Data

5.1.1 Road Hierarchy

Council has recognised that various roads within the municipality perform different functions. Therefore, when damaged or deteriorated, they potentially pose different levels of risk to public safety. The adoption of hierarchies enables more targeted and efficient management of Council assets and associated risks by allowing differing standards to be applied across different hierarchy classifications.

Road hierarchies inform inspection, maintenance and renewal programs. They also influence Council's traffic management strategies, emergency management procedures, land use planning activities, design and construction standards. As a result, the hierarchies provide improved co-ordination of Council strategies and activities and assist the community in understanding Council's overall approach to roads asset management.

The roads asset hierarchy, lengths and description of each classification as per Council's Road Management Plan 2019 is shown in Table 5.1.1 below.

Table 5.1.1: Council Road Hierarchy

Road Hierarchy Classification	Desired Function/ Description
Major Roads (83.3km)	Act as through traffic routes. Connect to the VicRoads arterial road network. Complement the VicRoads arterial road network by efficiently and safely channelling traffic through the municipality. Carry traffic between major commercial, industrial and residential areas. High to moderate use by heavy vehicles. Bus routes may be provided on these roads.
Collector Roads (51.5km)	Concentrate locally generated traffic to an outlet. Provide safe and efficient connection to commercial and residential areas from Major Roads, or directly from the VicRoads arterial network. Provide direct access to the local road network. Not intended to act as a through traffic routes. Carry local traffic to shops, schools, commercial districts, hospitals, sporting and other local facilities. Bus routes may be provided on these roads.
Industrial Roads (22.3km)	Provide access to local light industries concentrated in small areas within the municipality. Abutting properties are primarily industrial. High to moderate use by heavy vehicles. Bus routes may be provided on these roads.
Local Access Roads (483.1km)	Provide safe access to abutting properties (primarily residential). Low speed environment Bus routes may be provided on these roads.
Laneway/ Right of Way (6.2km)	Provide access primarily for abutting properties. Property access generally limited to the rear or side of properties.

Road Hierarchy Classification	Desired Function/ Description
Fire Tracks (0.6km)	Provide access for fire authority vehicles only
Key Central Activity Area (CAA) Roads (4.4km)	Provide access to, from and within the designated Central Activity Area[1]. Includes shared use areas with restricted vehicle access. Public amenity and aesthetic aspects of these roads take priority over speed and ease of movement of vehicles.
Service Roads (23.2km)	Roads running parallel to VicRoads arterial roads to provide access from an arterial road to the municipal road network and abutting properties.
Unsealed Roads (30.8km)	These roads have gravel/crushed rock surface. They may function as Major, Collector or Local Access road. Following formal construction of a sealed pavement, these roads will be re-classified into the appropriate class

5.1.2 Road condition data

Condition survey of the roads within the municipality was conducted in 2018. Pavement Condition Index (PCI) values and current condition of the roads were determined using SMEC Pavement Management System (PMS) based on the condition information collected during this survey. It should be noted that 30km of unsealed roads were not part of the 2018 condition audit, however video imagery was taken of these roads. Also, for various technical reasons about 9km of the road network was not assessed during the survey.

Although the condition profile demonstrate considerably (i.e. 81% of the road network is in Good or Very Good condition), PCI values calculated in the PMS are based on limited number of defect types and they do not reflect the structural intrgrity of the pavement. Pavement strength testing was undertaken for Major, Collector and Industrial roads as part of the 2018 condition audit as described in section 3.5.

It is recommended that Council continue to assess structural integrity of Major (83km), Collector (52km) and Industrial roads (22km) in future to ensure optimal road treatments can be applied.

The following table shows the distribution of Council's road network across IPWEA 1 – 5 Condition Grading Model[9] and PCI.

Table 5.1.2: Sealed Road Network Condition Distribution

IPWEA Condition Rating	Pavement Condition Index (PCI)	Condition	Length of Sealed Road (km)
1	10.0 – 9.8	Very Good	123.6
2	9.8 – 8.2	Good	414.5
3	8.2 – 5.0	Fair / Moderate	113.2
4	5.0 – 1.5	Poor	11.1
5	<1.5	Very Poor	3.4
			665.9

The following figures show the condition profile of sealed roads in 2019.

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

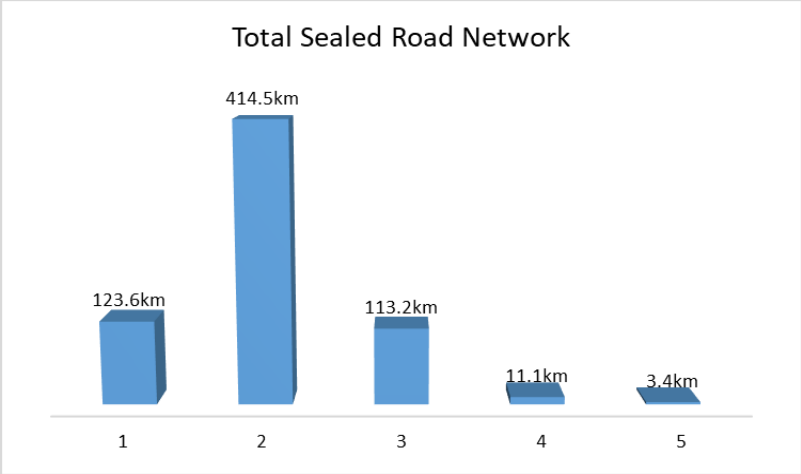


Figure 5.1.2: Total Sealed Road Network Asset Condition Profile

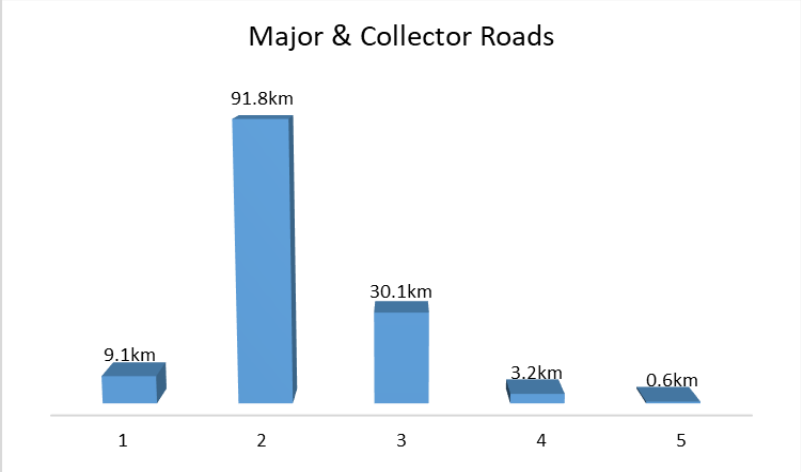


Figure 5.1.3: Major and Collector Roads Asset Condition Profile

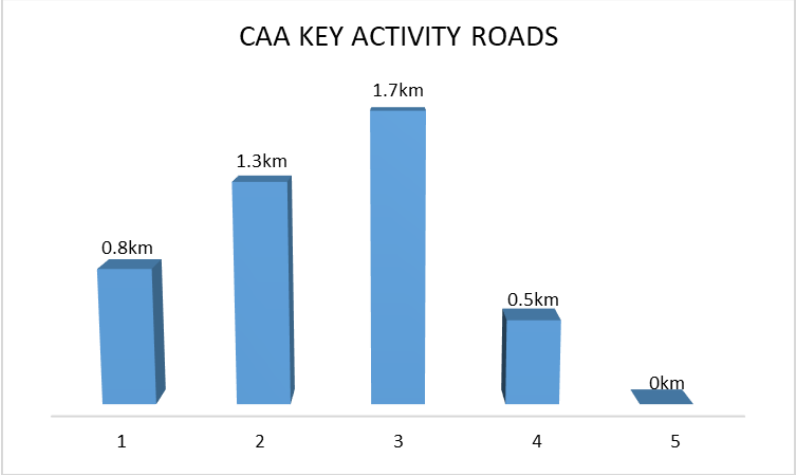


Figure 5.1.4: CAA Key Activity Roads Asset Condition Profile

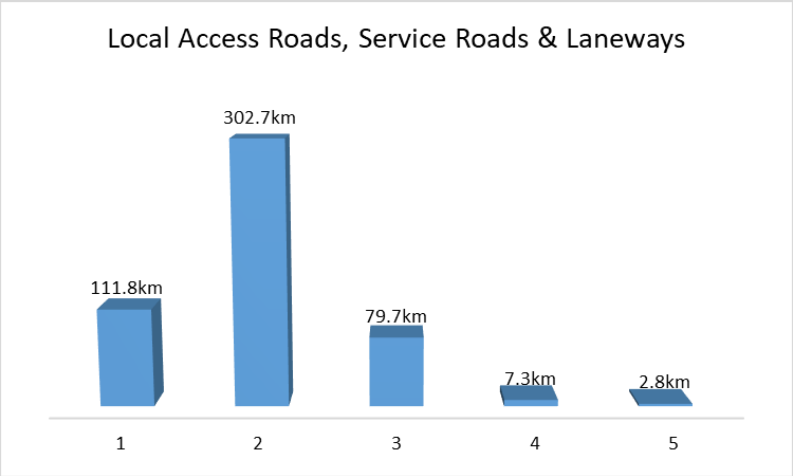


Figure 5.1.5: Local Access Roads, Service Roads & Laneways Asset Condition Profile

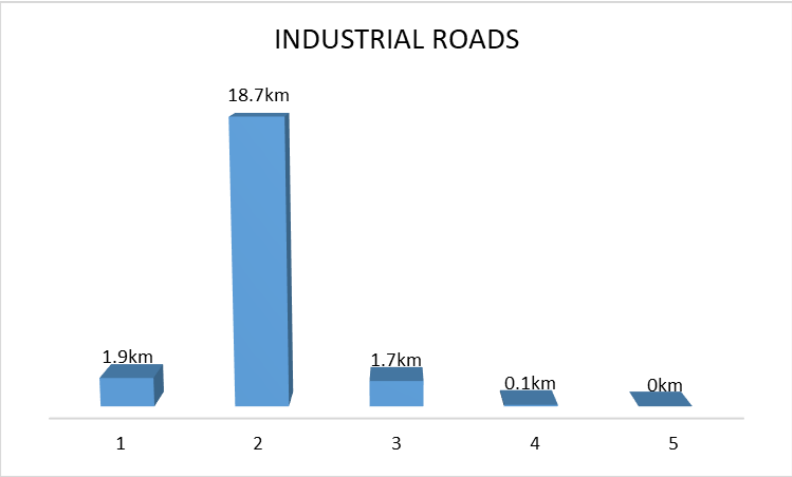


Figure 5.1.6: Industrial Roads Asset Condition Profile

5.2 Operations and Maintenance

The main objective of road maintenance is to maintain the road condition at an appropriate level and maintain structural integrity of the road to provide agreed level of service at the lowest possible cost without creating adverse impacts on the environment and community activities.

Maintenance standards based on community expectations are determined through community consultation and translated into routine inspections and maintenance activities. They are documented in Council's Road Management Plan 2019 (RMP). Maintenance standards across the network vary in terms of inspection frequencies, defect intervention levels and rectification timeframes, based on road hierarchy and risk/criticality. The RMP documents Council's current road management responsibilities and practices and provides Council with an opportunity to establish a policy defence against civil liability claims associated with Council's road network. The RMP is reviewed every four years.

Road defects are identified through routine RMP inspections, ADHOC inspections or from a customer request and maintenance work orders are raised in FAMIS should the defect exceed intervention levels set out in the RMP. These works are undertaken by Council's internal asset inspectors and road maintenance crews.

Council also maintain a crack sealing contract of $100K per annum to address cracking defects in a proactive manner. These works are done on a zone-by-zone basis, and target all cracking defects along sealed Council roads.

There is likely an opportunity to optimise the current crack sealing regime to ensure heavily trafficked roads i.e. major and collector roads that are experiencing increased deterioration are visited more frequently to better mitigate risk of water intrusion and pavement failure.

Road maintenance expenditure of past six years (2013/14 to 2018/19) is shown in Figure 5.2.1 below.

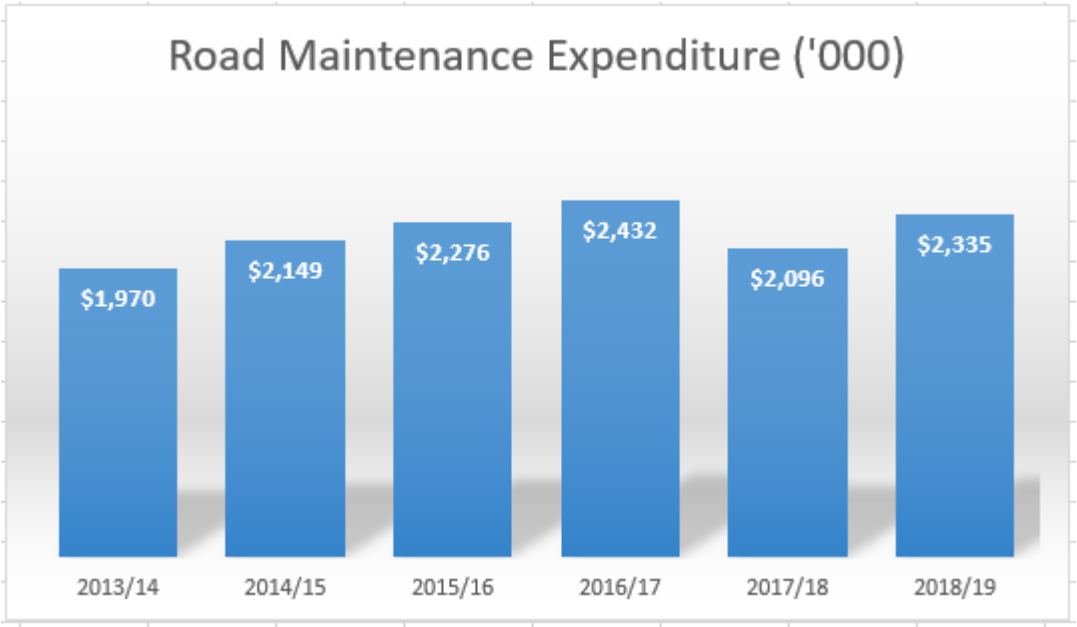


Figure 5.2.1: Road maintenance expenditure from 2013/14 to 2018/19

On average Council's operation and maintenance expenditure of roads is about $2.2 million per year. Roughly $2.4 million per year has been allocated for operation & maintenance of roads for the next 10 years.

See section 7: "Financial Summary" for 10 year operation and maintenance forecast.

Forecast maintenance expenditure over the next 10 years is based on historical growth in Council's road network as shown below:

Year	Total Road Network Length (km)	Sealed Road Length (km)	Road Network Annual Growth Rate (%)	Sealed Road Growth Rate (%)
2018-19	705.0	665.9	0.56%*	0.59%*
2017-18	701.1	662.0	0.29%	-0.02%
2016-17	699.1	662.1	-0.14%*	0.26%*
2015-16	700.1	660.4	0.22%	0.21%
2014-15	698.6	659.0	0.12%	0.11%
2013-14	697.8	658.3	0.14%*	0.17%*
2012-13	696.8	657.2	0.35%	0.35%
2011-12	694.4	654.9	-	-
		Average Growth Rate	**0.22%**	**0.24%**

** denotes asset register adjustments & validation have been made which may influence annual growth rate.*

5.3 Renewal/Replacement

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Assets requiring renewal/replacement are identified from customer requests, Council's routine and ADHOC road inspections and from pavement testing and condition audit analysis.

As described in section 5.1 and 3.5, Council's last road condition audit was undertaken in 2018 and involved a visual assessment of the road surface as well as with Falling Weight Deflectometer (FWD) testing (pavement strength testing) on Major, Collector and Industrial roads.

Audit data has since been validated and loaded into SMEC PMS which is being used to generate prioritised capital works programs for all sealed roads. These sites are then validated on site by Council engineers prior to programming any renewal works. The focus of the site visit is on assessing the requirement for road pavement and surface rehabilitation along with consideration for ancillary road infrastructure renewal works such as guard rail replacement, kerb renewal, traffic management device realignment etc. to maximise road renewal outcomes for the community.

Prioritised works programs are formulated based on a number of key indicators including road condition and deterioration, traffic loadings and cost-benefit analysis.

For Major and Collector roads (including bus routes) identified for renewal, additional pavement testing and design is required to ensure a suitable treatment is applied to achieve a 20 year minimum design life in order to reduce lifecycle costs. Further analysis is required for a number of road sections where structural deficiencies are known.

The projected expenditure for renewals in the Long Term Financial and Infrastructure Plans is summarised in Table 7.1.2 in Chapter 7.

5.3.1 Renewal ranking criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. road pavement stabilisation or reconstruction to cater for heavy vehicles), or

- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. roughness of a road).[10]

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

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be greatest,
- Have a total value representing the greatest net value,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings.[11]

Draft ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Appendix A.

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. Road assets may also be acquired at no cost from developments.

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 traffic management plans, Council's Contributory Schemes Policy or partnerships with others.

Council's Contributory Schemes Policy (2019) guides the construction of unsealed roads through special rates and charges for the equitable distribution of costs between Council and property owners that benefit from road construction. The Policy states Council must contribute a minimum of 20% towards proposed projects in recognition of annual rates paid by landowners and the benefit to Council of reduced recurrent maintenance costs.

Council maintains a "priority list", originally developed in 2002/03 and recently reviewed in 2018/19, to implement schemes for unconstructed roads on the basis of ranking criteria including road hierarchy, condition, traffic frequency, safety, maintenance and at least 50% support from property owners who would be involved in the Scheme.

Refer to Council's Contributory Schemes Policy (2019) for further details.

Draft priority ranking criteria for the upgrade or expansion of roads (aside from those covered under the Contributory Schemes Policy 2019) are detailed in Appendix B.

Expenditure on new assets and services in the capital works program will be accommodated in the Long Term Infrastructure Plan but only to the extent of the available funds following the programming of renewal works.

5.4.3 Summary of asset expenditure requirements

The financial projections from this asset plan are shown in Figure 5.4.3 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.

The bars in the graph represent the anticipated budget as identified in Council's Long Term Infrastructure and Financial Plans whilst the line represents the projected funding requirements to meet current service standards at the lowest lifecycle cost. The gap between these informs the discussion on achieving the balance between services, costs and risk to achieve the best value outcome.

[10] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.
[11] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

Figure 5.4.3: Projected Operating and Capital Expenditure

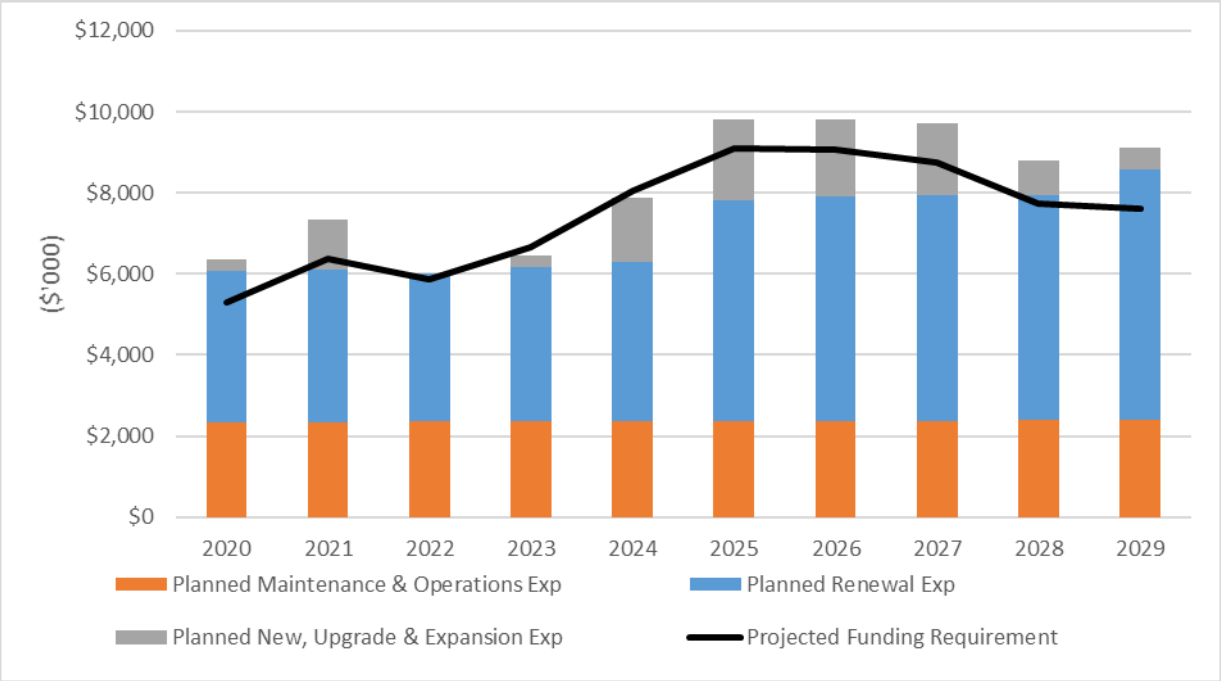


Figure Values are in current (real) dollars.

Over the 10 year period, Council has sufficient funds available to continue to deliver road transport services at the current standard. In 2023 and 2024 there is a funding shortfall (budgeted) of $194K and $167K respectively, however this can be accommodated by surplus funding over the 10 year period.

Council will continue to monitor its road related expenditure to ensure renewal and maintenance targets can be met in line with community expectations, with the aim of reducing lifecycle costs.

5.5 Disposal Plan

The disposal of assets is a critical part of the asset lifecycle and should be considered throughout service planning processes. It enables Council to reduce its asset management liabilities once assets have reached their useful lives or have become obsolete, as well as create opportunity for new assets and services to fill the gaps identified within service plans.

Disposal includes any activity associated with the disposal of a decommissioned asset including demolition or relocation. Any costs or revenue gained from asset disposals is accommodated in Council's Long Term Financial Plan (LTFP).

Council's Asset Options Policy and Procedure are in the final stages of development and are planned for adoption in the near future. The Asset Options Policy is intended to guide decision making around the assessment, rationalisation and disposal of Council owned assets in line with community needs and expectations.

The Asset Options Procedure will provide guidance to in implementing the Asset Options Policy, and will focus primarily on steps to take to assess, rationalise, transfer and dispose high value, physical assets. The adoption of the Policy and Procedure will provide the framework to determine assets which require rationalisation and disposal.

Road discontinuances may also be necessary in order to amend title boundaries for road reserves for strategic purposes, to remove the road from Council's Public Road Register (eliminating the need to maintain as per RMP) or to sell unwanted land which is deemed not required for general public use.

It is recommended that a Policy or Strategy be developed which governs Council's future road discontinuances and describes Council's approach to determining whether a road is generally required for use by the public.

6. RISK MANAGEMENT PLAN

The purpose of road risk management is to document the results and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services, 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'[12]. An assessment of risks[13] associated with service delivery from infrastructure assets identifies 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.

The Road Management Act 2004 established a coordinated management system to promote safe and efficient road networks. According to the Act, Council is the "Responsible Road Authority" for all municipal roads or ancillary areas to that road. Current management practices and procedures are structured to ensure compliance with the Road Management Act 2004.

The Road Management Act requires Council to proactively manage the risk associated with service delivery of its network of roads and road related infrastructure. This is achieved with implementation of the Road Maintenance Management Plan, and is structured around the criticality assigned by application of road hierarchies.

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.

With respect to maintenance and operational activities, critical assets have been identified through the development of road hierarchies as defined in Council's Road Management Plan 2019. The road hierarchies' enables prioritisation of day to day maintenance and operational activities and the associated risks by giving preference to roads with higher classification in terms of the assessment process.

Council's road hierarchy is described in Section 5.1.1 of this Plan.

Roads carrying heavy traffic are those identified as critical assets as they have the greatest potential to fail and cause significant service disruption. These include Major Roads, Collector Roads, Industrial Roads and bus routes identified within the municipality.

Prioritisation and allocation of capital funding is evaluated in terms of the process documented in Section 5: "Lifecycle Management Plan". Asset criticality will be further developed as part of the improvement actions listed in Section 8 of this Plan to inform future capital works prioritisation.

6.2 Risk Assessment

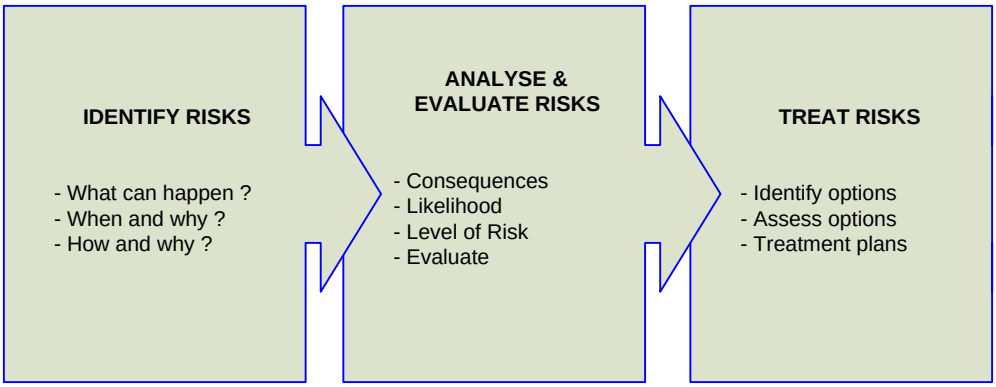
The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks. An assessment of risks associated with service delivery from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

Risk management process based on the fundamentals of the ISO risk assessment standard ISO 31000:2009 is shown in Figure 6.2.1 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.

[12] ISO 31000:2009, p 2

[13] Risk Management Framework 2018 (A3774193)

Figure 6.2.1 Risk Management Process – Abridged



Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan.

Risk assessment and associated treatment plans for maintenance and operational requirements of road infrastructure assets are addressed through implementation of the Public safety Risk Assessment Process documented in the Road Management Plan 2019 under Section E.3. The process is illustrated below in Table 6.2.1.

Table 6.2.1: Public Safety Risk Assessment Process

1. NOMINATE THE MOST LIKELY PUBLIC SAFETY CONSEQUENCE	
CONSEQUENCE	**DESCRIPTION**
CRITICAL	An incident caused by the defect is likely to result in death, permanent disability or disease.
MAJOR	An incident caused by the defect is likely to result in extensive injury, long-term illness or require admission to hospital
MODERATE	An incident caused by the defect is likely to result in medical attention. Injured person will need to visit a doctor or hospital casualty wars
MINOR	An incident caused by the defect is likely to result in first aid treatment.
INSIGNIFICANT	An incident caused by the defect is likely to result in no injury.
2. FOR THE CONSEQUENCE SELECTED IN STEP 1, NOMINATE THE LIKELIHOOD	
ALMOST CERTAIN	A negative public safety consequence is expected to occur in most circumstances. For example: • Defect exceeds intervention level specified in the RMP • The size/ extent of the defect exceeds the intervention level specified in the RMP by more than 100% • Defect is in an area which is not illuminated at all • Asset user has little or no opportunity to identify and safely avoid the defect or hazard • High usage of the asset by frail individuals including the elderly/ children/ disabled • The nature of the defect would make it difficult to identify at night

PROBABLE	A negative public safety consequence will probably occur in most circumstances. For example: • Defect exceeds intervention level specified in the RMP • The size/ extent of the defect exceeds the intervention level specified in the RMP by 75% to 100% • Defect is in an area which is poorly illuminated. • Asset user has minimal opportunity to identify and safely avoid the defect or hazard • Moderate to high usage of the asset by frail individuals including the elderly/ children/ disabled • The nature of the defect would make it difficult to identify at night
POSSIBLE	A negative public safety consequence should occur at some time. For example: • Defect exceeds intervention level specified in the RMP • The size/ extent of the defect exceeds the intervention level specified in the RMP by 50% to 75% • Defect is in an area with variable/ restricted visibility • Asset user has some opportunity to avoid the defect Grade is variable • Moderate usage of the asset by frail individuals including the elderly/ children/ disabled
UNLIKELY	A negative public safety consequence could occur at some time. For example: • Defect exceeds intervention level specified in the RMP • The size/ extent of the defect exceeds the intervention level specified in the RMP by less than 50% • Defect is in an area with good visibility • Asset user can easily avoid the defect • Asset usage is low and infrequent • Occasional usage of the asset by frail individuals including the elderly/ children/ disabled
RARE	A negative public safety consequence may only occur in exceptional circumstances • Defect exceeds intervention level specified in the RMP • The size/ extent of the defect is equal to the intervention level specified in the RMP • Defect is in an area with good visibility • Defect is easily avoidable • Rare usage of the asset by frail individuals including the elderly/ children/ disabled

3. EVALUATE THE RISK

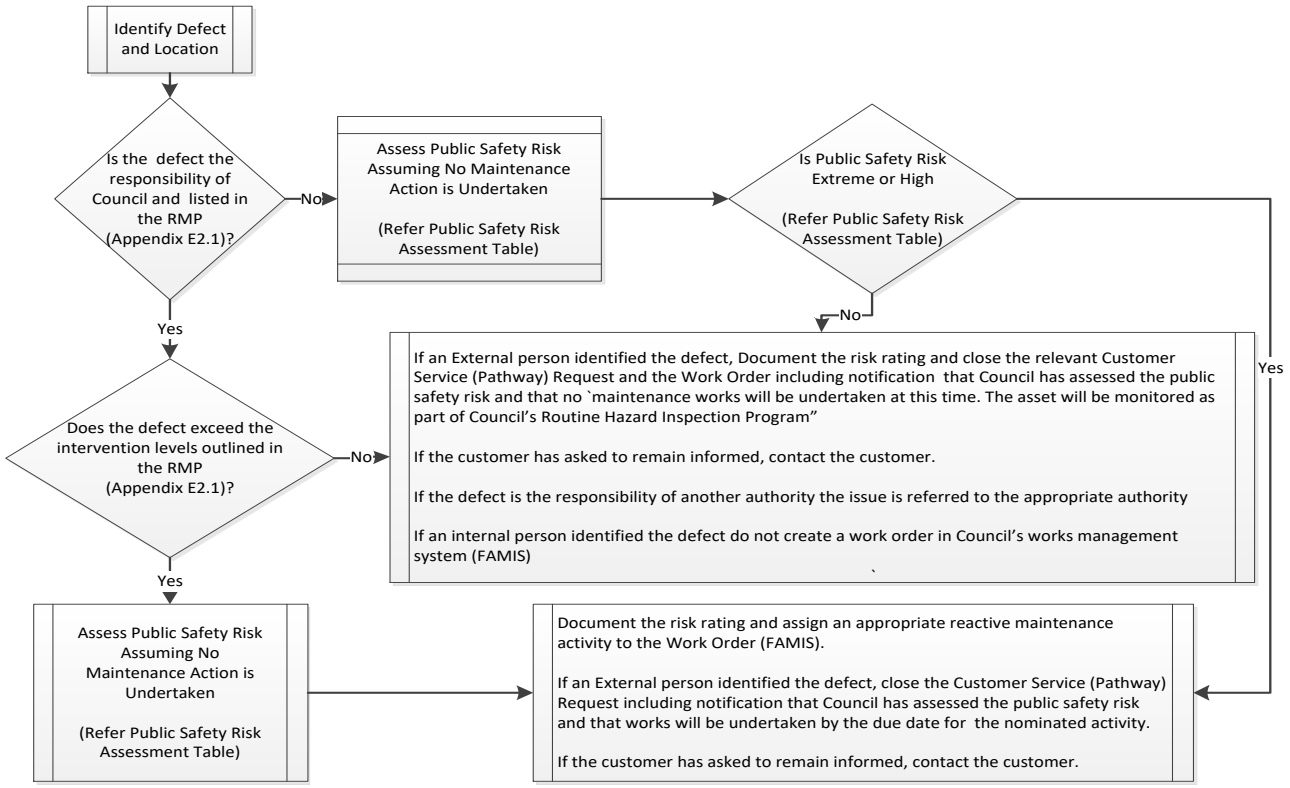
LIKELIHOOD	**CONSEQUENCE**				
	INSIGNIFICANT	**MINOR**	**MODERATE**	**MAJOR**	**CRITICAL**
ALMOST CERTAIN	MEDIUM	MEDIUM	HIGH	EXTREME	EXTREME
PROBABLE	LOW	MEDIUM	HIGH	HIGH	EXTREME
POSSIBLE	LOW	MEDIUM	MEDIUM	HIGH	HIGH
UNLIKELY	LOW	LOW	MEDIUM	MEDIUM	MEDIUM
RARE	LOW	LOW	LOW	LOW	MEDIUM

Public safety risk assessments are undertaken by:

- Council's routine defect inspector(s) as part of the routine defect inspections described in this document;
- Council officers, with responsibility for asset maintenance, when potential hazards are brought to their attention via requests logged into Council's customer service system (Pathways);
- Council officers, with responsibility for asset maintenance, when undertaking ad hoc inspections, while undertaking other duties on site.

The detailed public safety risk assessment process is illustrated in Figure 6.2.2[14]. Officers use this process to assess the consequences and likelihood of a potential hazard. The risk rating is assigned to the resulting work order and is an indication of the risk if no action was to be undertaken by Council.

Figure 6.2.2: Public Safety Risk Assessment Process



Risk assessment according with Council Risk Management Framework will be developed under Section 8, Plan Improvement and Monitoring.

6.3 Service and Risk Trade-Offs

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

6.3.1 What we cannot do

The organisation is well placed to avoid service and risk trade-offs as the current budget in the Long Term Infrastructure and Financial Plans for Roads operations, maintenance and renewal is sufficient to meet current long term financial requirements.

[14] Frankston City Council Road Management Plan 2019; Version 2.0, Section E3 (A3802512)

In case Council are unable to provide the required funding levels to sustain current service levels detailed in this Plan, Council will prioritise non-discretionary budget allowances over discretionary budget outlays in the first instance as per Council's Asset Management Policy 2019 objectives.

Expenditure outlays towards new, upgrade and expansion of existing road infrastructure will be deferred to ensure sufficient funding levels are available for planned renewal and compliance works.

As a secondary measure to the above, Council might have to consider lowering current service levels for operations, maintenance and renewal activities. This might extend to the following:

- Routine defect inspections - Reduction in frequency of inspections;
- Routine maintenance - increasing intervention levels and reaction timeframes stipulated within the RMP
- Reactive maintenance - increasing intervention levels and reaction timeframes stipulated within the RMP
- Road renewals – review and adjustment of asset useful life and intervention levels

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. Service trade-off due to lack of available funding may include:

- Limiting construction of new, upgrade and expansion type roads projects within the municipality;
- Delaying renewal and replacement of existing roads and road components;
- Reduced inspection frequency for roads with a higher assigned hierarchy;
- Longer duration in reaction times allowed for temporary, rectification works, clearing and cleaning of obstructions'
- Review and adjust the intervention levels as assigned under the RMP;

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:

- Poorer quality road assets at each respective level of the Roads hierarchy;
- RMP intervention levels for Roads hazards may need to be reviewed and increased;
- Temporary works may require longer duration and will cause disruption of service;
- Reduced levels of service provided by roads to the community.

These actions and expenditures are considered in the projected expenditures. The development of a Risk Management Plan would allow for a structured approach to identifying, mitigating and monitoring risks associated with Council's road network.

7. FINANCIAL SUMMARY

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

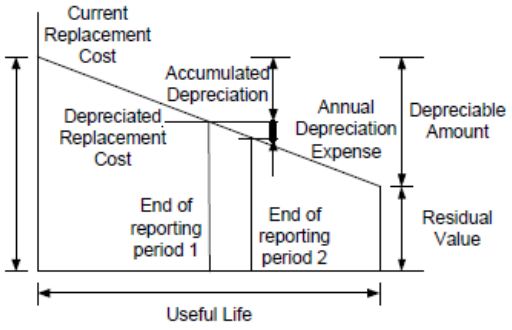
7.1 Financial Statements and Projections

7.1.1 Asset valuations

The best available estimate of the value of assets included in this Asset Management Plan (as at June 2019) are shown below. Assets were last revalued in 2018/19. Assets are valued based on Greenfield rates and are depreciated as shown in the Figure 7.1.1.

Gross Replacement Cost	$398,893,811
Depreciable Amount	$128,718,128
Depreciated Replacement Cost[15]	$270,175,683
Annual Average Asset Consumption	$5,732,122

Figure 7.1.1: Asset Depreciation



7.1.2 Sustainability of service delivery

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

- asset renewal funding ratio, and
- medium term budgeted expenditures/projected expenditure (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[16] 110.7%

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have 110.7% of the funds required for the optimal renewal and replacement of assets.

[15] Also reported as Written Down Value, Carrying or Net Book Value.
[16] AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

Medium term – 10 year financial planning period

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

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

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is $6,398,200 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is $7,080,000 on average per year giving a 10 year funding surplus of $681,800 per year.

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

7.1.3 Projected expenditures for long term financial plan

Table 7.1.2 shows the projected expenditures for the 10 year Long Term Financial and Infrastructure Plans including $743K per annum between 2019/20 and 2023/24 for Roads to Recovery.

No asset disposals have been identified in the forward program.

Expenditure projections are in real (current) values.

Table 7.1.2: Projected Expenditures for Long Term Financial and Infrastructure Plans ($000)

Year	**Maintenance & Operations** ($000)	**Capital Renewal Target** ($000)	**Budgeted Capital Renewal** ($000)	**Budgeted Capital Upgrade/ New** ($000)
2020	$2,340	$2,687	$3,743	$285
2021	$2,346	$2,765	$3,743	$1,259
2022	$2,351	$3,531	$3,669	$0
2023	$2,357	$3,991	$3,797	$300
2024	$2,362	$4,094	$3,927	$1,585
2025	$2,367	$4,728	$5,450	$1,991
2026	$2,373	$4,801	$5,550	$1,877
2027	$2,378	$4,582	$5,550	$1,792
2028	$2,384	$4,498	$5,550	$860
2029	$2,389	$4,658	$6,175	$563
10 Year Total	**$23,647**	**$40,335**	**$47,154**	**$10,512**

7.2 Funding Strategy

Funding for assets is provided from the Council's Annual Budget and Long Term Financial and Infrastructure Plans.

The financial strategy of the entity determines how funding will be provided, whereas the asset management plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

7.3 Valuation Forecasts

Asset values are forecast to increase as additional road assets are constructed via Contributory Schemes, gifted from developers and as the cost of road construction increases over the years.

Additional assets will add to the operations and maintenance requirements in the longer term, as well as the need for future renewal. Additional assets will also add to future depreciation forecasts.

Road asset values are also likely to increase due Council's preference to resurface roads with asphalt as opposed to spray seals in urban areas. This is typically done to minimise the need for replacement in the short term and reduce the overall lifecycle cost to Council and the community.

7.4 Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan are:

- All assets within Council's road asset portfolio will remain in Council's responsibility throughout the planning period.
- Forecast operational and maintenance requirements are based on a growth of 0.24% per annum in line with average annual growth of the road network.
- A number of parameters in SMEC Pavement Management System have been assumed where no information could be sourced including detailed road pavement and treatment details and traffic loadings which may impact overall renewal requirements.
- Long term renewal forecasts are based on various assumed intervention levels provided in the PMS across the road hierarchies.
- Levels of service remain consistent over the 10 year planning period (financial forecasts).

7.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale[17] in accordance with 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%
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%

[17] IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

Confidence Grade	Description
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy ± 40%
E Unknown	None or very little data held.

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

Data	Confidence Assessment	Comment
Demand drivers	C	Service planning is required to improve confidence.
Growth projections	B	Frankston City online profile and 2018 Census data used.
Operations expenditures	C	Future operational expenditure based on historical expenditure and growth
Maintenance expenditures	C	Future operational expenditure based on historical expenditure and growth
Projected renewal expenditure. - Asset values	B	20 year capital works renewal program based on asset condition modelling from Council's PMS. Need to improve data with PMS and intervention levels to improve confidence.
- Asset residual values	C	Estimated using straight line depreciation. Reliant on useful life asset data.
- Asset useful lives	C	Recently updated as part of 2018/19 asset revaluations. Further monitoring and assessment of practical situation is needed at different road hierarchy levels.
- Condition modelling	B	Based on SMEC PMS modelling using visual condition survey data obtained in 2017/18.
- Network renewals	B	Based on SMEC PMS modelling using visual condition survey data obtained in 2017/18.
- Defect repairs	B	Governed under RMP and referred through to capital works where maintenance thresholds are exceeded. Data captured in FAMIS.
Upgrade/New expenditures	C	Medium term (10 years) planning available in the Long Term Infrastructure Plan.
Disposal expenditures	D	Asset Options Policy & Procedure documents to be used to generate a rationalisation plan. Road discontinuance policy and/or guidelines to be developed.

8. Improvement Plan

Altogether, 24 improvement actions were identified during the development of this plan. They are listed in the following table.

Table 8.1: Improvement Plan

Task No	Task	Responsibility	Timeline
Data			
1	Establish clear roles and responsibilities for road asset data management through a set of data management guidelines.	Asset Planning	2019/20
2	Review existing Road dataset. • Identify gaps. • Implement a plan to cleanse and update roads asset data. • Consolidate roads datasets in various systems, spreadsheets, etc.	Asset Planning	2019/20
3	Prepare a renewal strategy for roads to inform Council's Long Term Infrastructure Plan (LTIP). This strategy will include; • Application of innovative design solutions • Methodology for prioritisation of renewals • Use of recycled materials • Methodology to investigate and monitor the performance of various road treatments.	Asset Planning	2019/20
4	Review condition data collection cycle and funding requirements.	Asset Planning	2019-20
5	Review traffic data collection process.	Asset Planning/Engineering Services	2019/20
Capital Works & Developer Contributed Assets			
6	Review Council's subdivision guidelines and approval processes for road construction.	Engineering Services	2019/20

Task No	Task	Responsibility	Timeline
7	Review the availability of standard drawings for road construction. Develop standard drawings if they are not available.	Engineering Services/Capital Works/Asset Planning	2019-20
8	Review council's process of supervision of construction, availability of relevant documents and resource requirements.	Capital Works	2020/21
9	Review Council's asset handover process, responsibilities and information requirements for capital works projects and subdivisions (gifted assets).	Asset Planning / Capital Works	2019/20
10	Implement a process to improve the coordination of road work with internal (i.e. Operations) and external stakeholders (ex: VicRoads)	Engineering Services/Special Projects/Operations/Asset Planning	2019/20
Maintenance			
11	Utilise capitalisation threshold for road works to better classify maintenance and capital works. Identify TECH1 requirements to enable this process.	Asset Planning/ Accounting Services/ Business Information Technology	2020/21
12	Review and action or plan for the various capital works referrals that are identified through routine and reactive maintenance works.	Asset Planning / Operations / Capital Works	2019/20
13	Capture costs associated with road maintenance including routine and reactive works in FAMIS.	Asset Planning/ Operations/ AMIS Supporters	2020/21
14	Analysis of Maintenance Histories and Asset Performance to identify renewal needs. Introduce a performance-based maintenance system based on the road performance indicators.	Asset Planning	2020/21
15	Map customer requests and defects. Identify road segments or areas that require further investigations.	Asset Planning/ Operations/ AMIS Supporters	2019/20
16	Review Council's crack sealing program, prioritisation of the program with the intent of including major and collector roads to the program.	Asset Planning / Operations	2020/21

Task No	Task	Responsibility	Timeline
Asset Management Information System (AMIS)			
17	Finalise the rollout of routine works management for roads in FAMIS/KERN.	Asset Planning / Operations / Business & Information Technology	2019-20
18	Review roads data hierarchy in FAMIS	Asset Planning	2019/20
Other			
19	Identify critical road assets in accordance with Council's Risk Management Framework and document the process.	Asset Planning	2020/21
20	Analyse the life cycle cost of unsealed roads (30km) and consider upgrading unsealed roads to sealed roads based on cost-benefit analysis.	Operations/Asset Planning	2020/21
21	Identify community level of service.	Service Planning Team	2019/20
22	Review roads asset valuation process	Asset Planning/Finance	2019/20
23	Review "Black Spot Improvement Project" and assess the availability of state government funding towards better management of road safety aspects.	Engineering Services	2019/20
24	Develop a Policy or guidelines which govern Council's future road discontinuances and describes Council's approach to determining whether a road is generally required for use by the public.	Asset Planning	2020/21
25	Review and update key strategies pertaining to strategic management of roads and transport assets including but not limited to the Integrated Transport Strategy, Bicycle Strategy and Pathway Development Plan.	Engineering Services	2021/22

8.1 Monitoring and Review Procedures

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

This asset management plan has a life of 4 years and is due for complete revision and updating within expiry of this period.

The progress of the implementation of the improvement plan will be monitored by the Strategic Asset Management Leadership Team.

8.2 Performance Measures

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

- Progress with implementation of the Improvement Actions.

9. REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney

10. APPENDICES

Appendix A Non-Discretionary Capital Works Project Ranking Criteria

Appendix B Discretionary Capital Works Project Ranking Criteria

Appendix A Non-Discretionary Capital Works Project Ranking Criteria

ROAD RENEWAL PROGRAM – REHABILITATION

Program Objectives

The objective of this program is to rehabilitate or reconstruct deteriorated roads across the municipality, as determined from condition audits.

Assessment Criteria	Rating	Score
Governance (Go)– 10% Weighting (Pa + In)		
How well does the project align with program objectives (Pa)?	Significantly Moderately Slightly Not at all	8 4 2 0
Has the road been assessed in accordance with Councils Pavement Management System (In)?	Yes Assessed by staff No	8 4 0
Social Outcome (So) – 20% Weighting (Sa)		
How well does the project contribute to safety improvements as part of the treatment (Sa)?	Significantly Moderately Slightly Not at all	5 4 2 0
Economic Assessment (Ec) – 60% Weighting (Rf + Vm)		
Road Function (Rf)	CAA Road Major Road Collector Road Unsealed Industrial Road Local Access Road Laneway/ R.O.W Service Road Fire Track	8 8 7 6 7 5 4 3 3
Cost of the Repairs per sqm (Cr)	$000s/sqm	NA
Value for Money (Vm)	(So+Rf+Ea)/Cr	8 to 1
Environmental Assessment (Ea) – 10% Weighting (En)		
To what extent does the project benefit the environment considering energy reduction/efficiency, reduction of greenhouse gas emissions, water consumption, the use of recycled materials and minimising the use of resources? Are there positive environmental initiatives in the project? (En)	Significantly Moderately Slightly Not at all	8 4 2 0

Appendix B Discretionary Capital Works Project Ranking Criteria

ROADS & BRIDGES

Program Objective

The objective of this program is the creation or upgrade of roads, vehicular bridges, special charge schemes, road widening, kerbing and on-street carparking.

Assessment Criteria	Rating	Score
Governance (Go) – 10% Weighting (Pa+Cp+Tp)		
How well does the project align with program objectives (Pa)?	Significantly Moderately Slightly Not at all	8 4 2 0
To what extent does the project reflect the current direction and vision of Council as outlined in the Council Plan 2017 – 2021 (Cp)?	Significant Moderate Slightly Not at All	8 4 2 0
The works align with Council's Transport Plan (Tp)?	Significant Moderate Slightly Not at All	8 4 2 0
Social Outcome (So) – 30% Weighting (Sa+Da+Bu)		
The works improve safety and amenity (Sa)?	Significant Moderate Slightly Not at All	8 4 2 0
The works support the needs of the disabled and/or disadvantaged(Da)?	Significant Moderate Slightly Not at All	8 4 2 0
The works improve access to Public Transport or promote bicycle use (Bu)?	Significant Moderate Slightly Not at All	8 4 2 0
Economic Assessment (Ec) – 50% Weighting (Ra+Be+Ce+Vm)		
Road Hierarchy (Ra)	CAA Road Major Road Collector Road Unsealed Industrial Road Local Access Road Laneway/ R.O.W Service Road Fire Track	8 8 7 6 7 5 4 3 3
Improves connectivity of the network Improves travel reliability Improves connectivity to important facilities Supports freight movement (Provide a score for each of the above) (Be)	Yes Yes Yes Yes	2 2 2 2
Contribution to the Economy (Ce) What is the extent of economic benefits, to Council and/or the community, potential cost savings, availability of grants/contributions or any return for investment?	Significant Moderate Slightly Not at all	8 4 2 0

Assessment Criteria	Rating	Score
Length of asset (Road) Size of asset (Bridge)	Lane km sqm	
Cost of the Facility (Cf) $000's	Road:$/lane km Bridge: $/sqm	NA
Value for Money (Vm)	(So+Ra+Be+Ce+Ea)/Cf	8 to 1
Environmental Assessment (Ea) – 10% Weighting (En)		
To what extent does the project benefit the environment considering energy reduction/efficiency, reduction of greenhouse gas emissions, water consumption, the use of recycled materials and minimising the use of resources? Are there positive environmental initiatives in the project? (En)	Significant Moderate Slightly Not at all	8 4 2 0

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