

Strategic Asset Management Plan

City of Greater Geraldton

20 September 2019

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1. Executive summary

1.1 Introduction

This Strategic Asset Management Plan (SAMP) updates the information contained in the Infrastructure Asset Management Strategy 2013 from interviews with the City's asset managers, Asset Management Plans (AMP), Levels of Service (LoS) documents and financial information used to develop the Long Term Financial Plan (LTFP).

1.2 Strategic Objectives

The strategic objectives of SAMP are aligned with the Corporate Business Strategy and the Community Strategic Plan in delivering services with physical assets that address the City's vision of a prosperous, diverse, vibrant and sustainable community. The SAMP also outlines the City's response to issues and options including optimising the lifecycle costs of owning and operating assets to deliver the levels of service.

1.3 Asset Summary

The asset classes covered by the SAMP are summarised in section 2.7:

- Transport and drainage
- Buildings
- Paths
- Sports, Recreation and Leisure
- Lighting and Electrical
- Parks and Reserves
- Coastal and Natural Areas
- Fleet, Plant and Equipment
- Waste Disposal
- Sewerage Treatment
- Airport

1.4 Asset Management Strategies

The asset management strategies for each asset class are detailed in section 5.7 and are summarised in the following table:

Table 1: Asset Management Strategies

Intervention Strategy	Description
Transport & Drainage	Maintenance based on defect notification. Renewal based on condition and asset hierarchy.
Buildings	Maintenance based on condition appraisals. Renewal on end of life of elements from condition appraisals.
Paths	Maintenance based on defect notifications. Renewals based on condition & asset hierarchy and risk associated with trip hazards for slab paved paths.
Sports, Recreation and Leisure	Maintenance based on defect notification. Renewals based on visual condition assessments.
Lighting and Electrical	Maintenance on breakdown and preventative strategies from condition appraisals. Renewals based on condition inspections.
Parks and Reserves	Maintenance based on defect notification and inspections. Renewals based on routine inspections as per the LoS hierarchy.
Coastal & Natural Areas	Maintenance based on defect notification. Renewals based on visual condition assessments.
Fleet, Plant and Equipment	Maintain in accordance with equipment suppliers O&M manuals. Renewals on age or use based on Asset Utilisation table in AMP.
Waste Disposal	Maintenance – to be determined. Renewal – to be determined.
Sewerage Treatment	Maintenance in accordance with the O&M manual. Renewal based on advice from external resource.
Airport	Maintenance in accordance with the AMP. Renewals in accordance with the AMP.

1.5 Financial Plan

1.5.1 Asset Renewals

The asset renewals summary is provided in section 5.10 and 6.3.2. The proposed renewals are shown in Table 2 and Figure 1. The renewals forecasts have been prepared from the following:

- 2019-20 Capital Program Report;
- Individual Asset Management Plans (AMP) for Asset Classes where available;
- Previously undertaken Asset Demand Profiling of all Asset Classes;
- And renewals schedules provided by each asset class manager.

In some cases, the information is not yet available or is out of date and improvement actions are provided in section 7.2 to address the updating of out of date AMPs and renewals forecasts.

Table 2: Renewals Forecasts by Asset Class

	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24
Airport	\$327,000	\$42,641	\$208,273	\$0	\$40,515
Buildings	\$1,038,000	\$567,115	\$250,925	\$265,100	\$274,580
Drainage	\$1,265,600	\$310,000	\$2,940,125	\$942,945	\$2,660,730
Fleet, Plant & Equipment	\$2,033,000	\$4,482,000	\$3,587,500	\$2,135,000	\$3,059,500
Lighting	\$655,000	\$250,000	\$250,000	\$250,000	\$250,000
Paths	\$694,000	\$1,500,820	\$1,857,710	\$1,311,680	\$2,433,635
Parks & Reserves	\$2,335,500	\$884,970	\$2,794,055	\$1,869,585	\$448,315
Sport, Recreation & Leisure	\$732,100	\$2,500,000	\$0	\$500,000	\$0
Transport	\$9,921,000	\$8,755,373	\$8,025,076	\$14,003,804	\$11,557,885
Meru & Mullewa Waste Facility	\$170,000	\$312,715	\$237,980	\$263,100	\$2,259,942
Mullewa Sewerage	\$0	\$11,208	\$0	\$0	\$9,400
Coastal & Natural Areas	\$599,000	\$400,000	\$400,000	\$400,000	\$400,000
Total	\$19,770,200	\$20,016,842	\$20,551,644	\$21,941,214	\$23,394,502

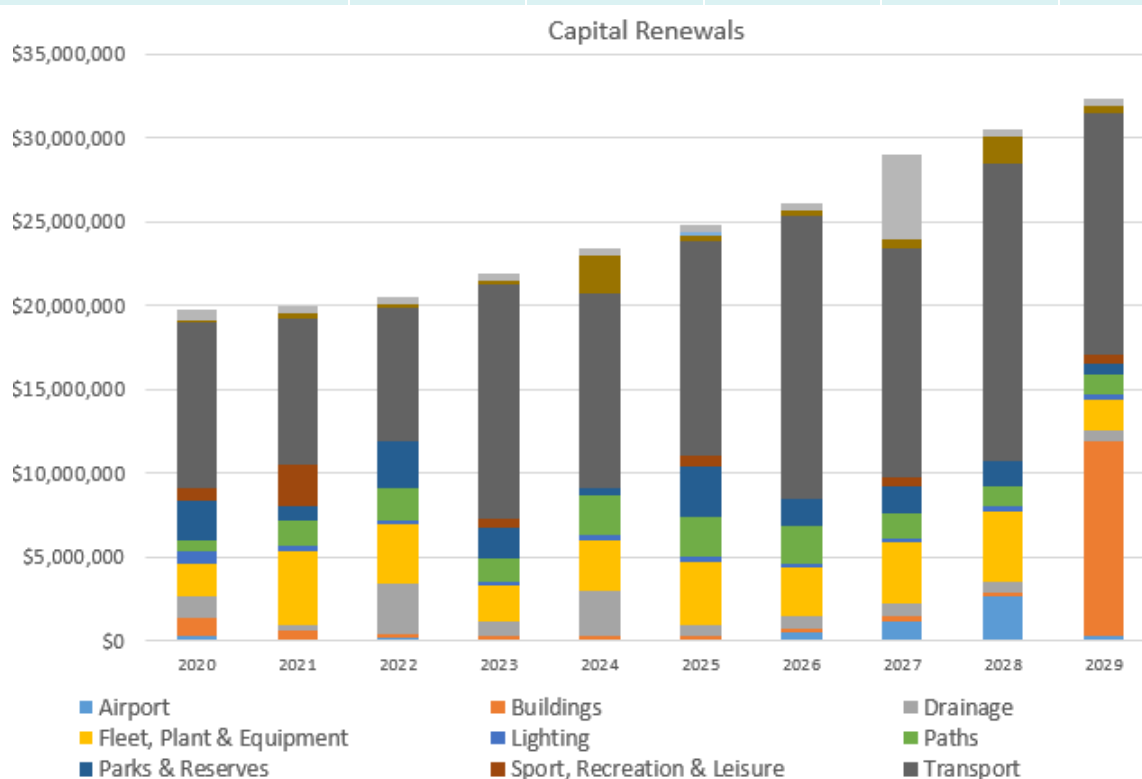


Figure 1: Capital Renewals Forecast

The capital renewals forecast shows that 51.6 percent of the average annual expenditures are for roads. The next largest asset class are Fleet, Plant and Equipment (12.6 percent) and Parks and Reserves (12.0 percent).

1.5.2 New Works

The new works projects have been identified in section 3.3 of the Capital Program Report and the asset class AMPs. The projected expenditure forecasts are included in section 6.3.1, and a summary provided in Table 3 and Figure 2

Table 3: New Works Forecast

	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24
Airport	\$0	\$430,000	\$0	\$0	\$0
Buildings	\$446,000	\$1,177,000	\$446,000	\$750,000	\$300,000
Drainage	\$0	\$518,595	\$22,000	\$650,000	\$600,000
Fleet, Plant & Equipment	\$187,200	\$365,000	\$60,400	\$0	\$0
Lighting	\$0	\$0	\$0	\$0	\$0
Paths	\$691,000	\$1,311,743	\$602,597	\$500,000	\$1,400,000
Parks & Reserves	\$1,442,950	\$846,113	\$0	\$650,000	\$600,000
Sport, Recreation & Leisure	\$19,000	\$0	\$2,591,700	\$0	\$0
Transport	\$1,730,000	\$931,000	\$576,000	\$2,250,000	\$2,500,000
Meru & Mullewa Waste Facility	\$0	\$160,000	\$500,000	\$0	\$0
Mullewa Sewerage	\$0	\$0	\$0	\$0	\$0
Coastal & Natural Areas	\$520,000	\$500,000	\$0	\$0	\$0
Totals	\$5,036,150	\$6,239,451	\$4,798,697	\$4,800,000	\$5,400,000

The new works capital expenditure graph shows a spike in 2027 due a major building project. The expenditure spread between the asset classes is primarily for roads (transport 24.6 percent), buildings (24.1 percent), paths (20.8 percent and parks and reserves (15.6 percent).

Lighting and Electrical assets expenditures are included in the Parks & Reserves and Sports, Recreation & Leisure asset classes. There are no new works planned for the Mullewa Sewerage Scheme as this system is adequate for the population of Mullewa (which is not expected to change in the next five to ten years).

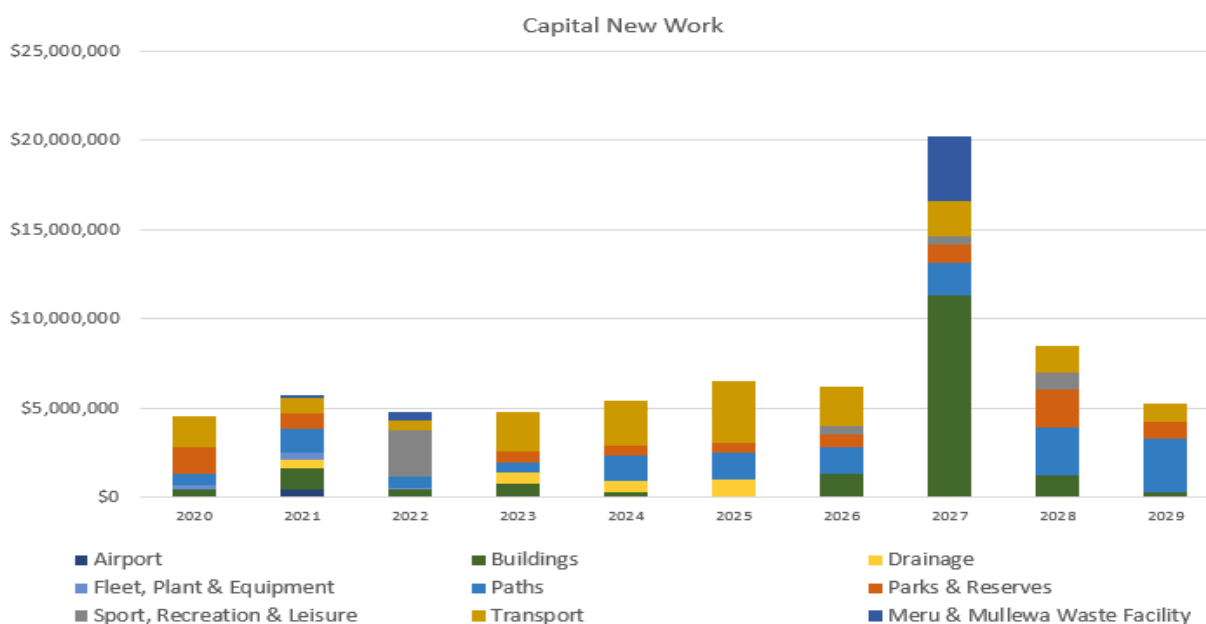


Figure 2: New Works Forecast

1.5.3 Maintenance

The maintenance forecast have been detailed in section 6.3.1 and summarised in Table 4 and Figure 3

Table 4: Maintenance Expenditure Forecast

	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24
Airport	\$219,384	\$220,821	\$224,667	\$229,684	\$234,816
Buildings	\$909,942	\$915,490	\$931,223	\$951,746	\$972,727
Drainage	\$1,050,000	\$1,071,000	\$1,092,420	\$1,114,268	\$1,136,554
Fleet, Plant & Equipment	\$1,116,132	\$1,116,132	\$1,116,132	\$1,116,132	\$1,116,132
Lighting	\$97,000	\$97,000	\$98,455	\$100,867	\$103,338
Parks & Reserves	\$4,583,169	\$4,674,832	\$4,768,329	\$4,863,696	\$4,960,970
Sport & Leisure	\$1,046,733	\$1,067,668	\$1,089,021	\$1,110,801	\$1,133,017
Paths	\$494,937	\$500,949	\$510,684	\$523,281	\$536,190
Transport	\$3,823,500	\$3,823,500	\$3,823,500	\$3,823,500	\$3,823,500
Meru Waste Facility	\$61,464	\$62,506	\$63,715	\$64,998	\$66,308
Mullewa Sewerage	\$12,055	\$12,081	\$12,280	\$12,589	\$12,907
Mullewa Waste Disposal	\$4,000	\$4,080	\$4,162	\$4,245	\$4,330
Coastal & Natural Areas	\$336,400	\$343,810	\$355,341	\$367,648	\$380,475
Mullewa Caravan Park and Cemetery	\$33,225	\$33,639	\$34,291	\$35,026	\$35,777
Total	\$13,787,941	\$13,943,508	\$14,124,220	\$14,318,481	\$14,517,040

The expenditure forecasts have been escalated by 2 percent per annum from 2020 to 2024 and 2.2 percent per annum from 2025 to 2029 except where current trends have identified a levelling out of costs (i.e. roads maintenance) due to overall condition improvements to that class of asset as a result of the continual increase funding being applied to renewal and replacement programs.

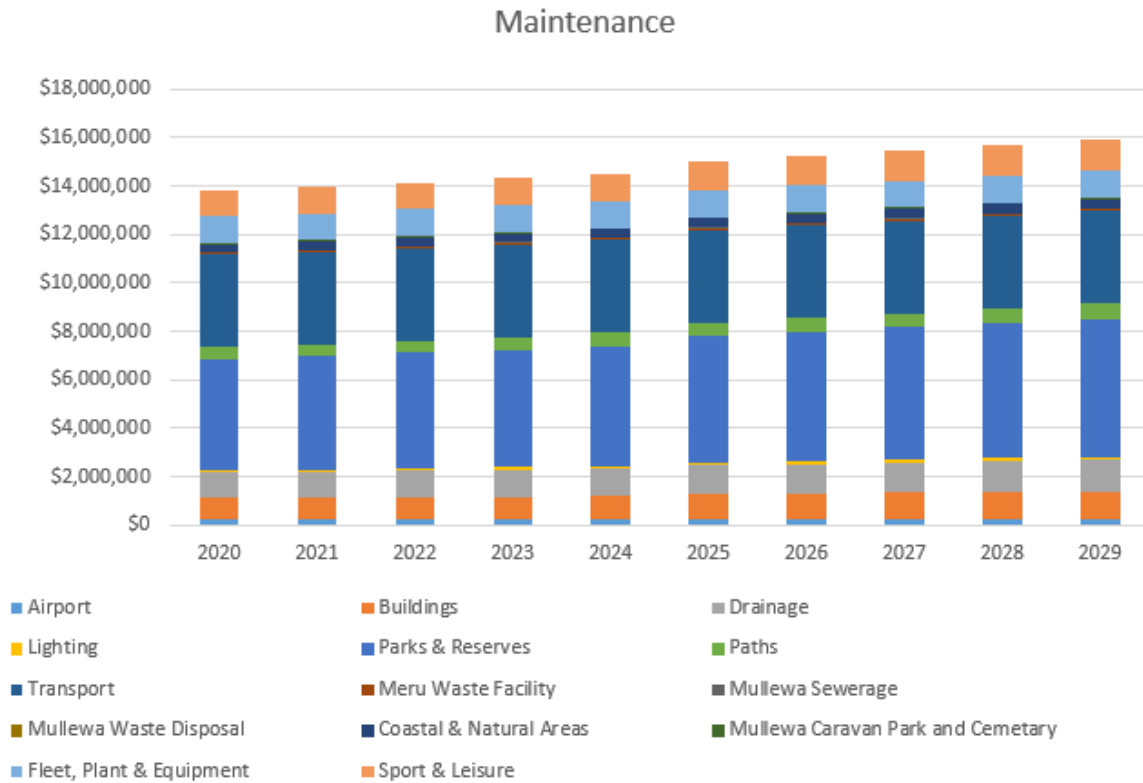


Figure 3: Maintenance Expenditure Forecast

1.5.4 Disposals

There are no disposals identified in the AMPs or LTFP. The asset disposal processes and actions will need to be documented in the asset class AMPs (refer to the improvement plan in section 7.2 for updating and creating the AMPs).

1.5.5 Financial Plan

The Financial Plan is provided in section 6. A summary of the proposed renewals expenditures and available budget is provided in the following graph. The graph shows that the next ten years of expenditures can be managed within the available budgets with some drawdown on the assets reserves to accommodate cyclical movements.

The primary driver linked to the City's Long Term Financial Plan and future financial sustainability has been to rectify the major legacy backlog in renewal of essential infrastructure and facilities, and bridge the funding gap for asset renewals going forward. That was, and remains, a mission-critical strategic imperative for the City Community.

This is a legacy problem, common across every Council in Australia, resulting from many years of old-fashioned cash-based budgeting which, by not including raising of funds for asset renewal over time, led to many years of under-rating of communities. Reports in 2012 indicated that, for WA Councils, there was a backlog of \$1.75 Billion in infrastructure renewal, with an annual funding gap of \$110 million.

The City has been working hard to get rid of the backlog, and to reduce the out-year spikes in funding demand, with 2018 assessments improved, but still showing high funding demands in future years as old assets wear out.

In 2011-12, the City spent just \$7,980,883 on Assets Renewal – for the rejuvenation/renovation or replacement of worn out assets, to maintain productive capacity, functionality and community amenity and safety.

Consistent with its asset management strategy, as reflected in Council's Long Term Financial Plan, since 2011-12 the City has significantly increased its Asset Renewal expenditure:

Financial Year	Renewal Expenditure
2012-13	\$11,865,674
2013-14	\$13,651,078
2014-15	\$11,878,932
2015-16	\$14,595,766
2016-17	\$16,511,053
2017-18	\$20,813,726
2018-19	\$32,410,526
Total	\$121,726,755

Note: Significant increase in 2018-19 renewal expenditure due to major renewal works associated with Airport major runway upgrade.

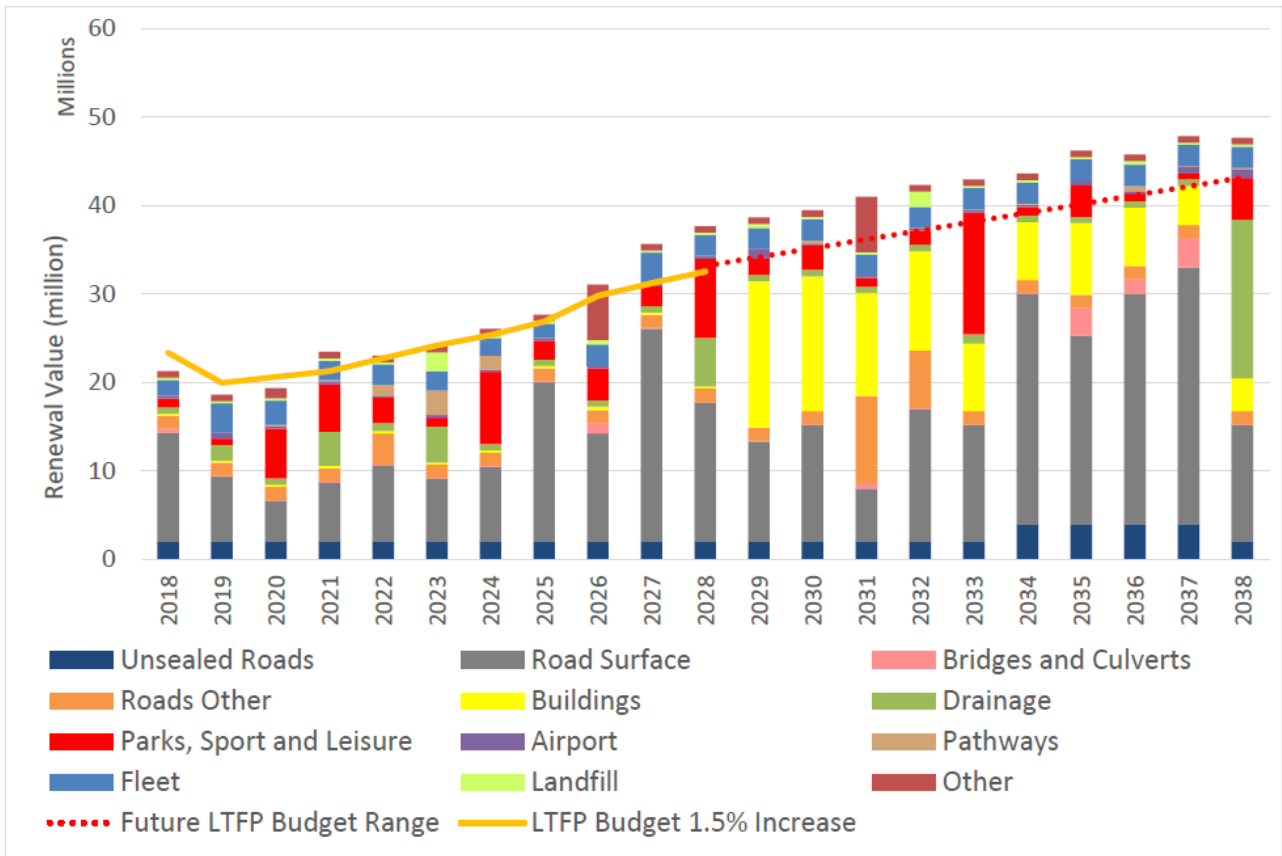


Figure 4: Forecast Renewals Expenditure and Budget Summary

The forecast expenditures exceed the available budget in the Long Term Financial Plan, which will need to be managed through deferment on non-essential and lower priority projects.

1.6 Improvement Plan

An Asset Improvement Plan is included in section 7.2. The improvement plan includes:

- Appointing an Asset Manager
- Revising the Asset Management Policy
- Updating the out of date AMPs and creating new AMPs for those asset classes that have not been developed
- Upload the asset replacement rates, useful lives, condition and decay curves into the Assetic software to enable renewals forecasts to be generated from Predictor
- Updating the SAMP once the Community Consultation process has been completed and Levels of Service targets can be set for all asset classes.



Disclaimer

This report: has been prepared by GHD for City of Greater Geraldton and may only be used and relied on by City of Greater Geraldton for the purpose agreed between GHD and the City of Greater Geraldton as set out in section 2.1 of this report.

GHD otherwise disclaims responsibility to any person other than City of Greater Geraldton arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

2. Introduction

The City owns and managed more than \$987 million¹ of physical assets. The City covers an area of approximately 12,626 square kilometres and provides services to a resident population of approximately 38,738² persons.

This Strategic Asset Management Plan (SAMP) updates the information contained in the Infrastructure Asset Management Strategy 2013 from interviews with the City's asset managers, Asset Management Plans (AMP), Levels of Service (LoS) documents and financial information used to develop the Long Term Financial Plan (LTFP).

The development of the SAMP follows the guidance provided in the Department of Local Government Sports and Cultural Industries (DLGSC) Integrated Planning and Reporting Guidelines 2016.

2.1 Purpose

The purpose of the Strategic Asset Management Plan is to detail:

- How the Asset Management Policy will be implemented,
- The asset management processes and procedures common to all asset class
- The management strategies and renewals forecasts for each asset class.

The Strategic Asset Management Plan should lay out the asset management strategy for the major asset classes. The Integrated Monitoring and Reporting Framework Guidelines include the following requirements for the asset management strategy:

1. Define major asset classes
2. Defining the levels of service
3. Establish the link to Long Term Financial Plans
4. Establish the link to the Workforce Plans
5. Set the governance and management arrangements
6. Establish the data and information systems
7. Incorporate improvement of skills and processes

The link between the corporate strategic planning and asset management processes is shown in Figure 5. The diagram includes the planning horizon associated with each part of the Integrated Planning and Reporting process.

¹ Long Term Financial Plan 2019-2029

² Australian Bureau of Statistics – Geraldton LGA 2018



Figure 5: Integrated Planning and Reporting Framework³

2.2 Corporate Vision, Mission and Values

The Corporate Vision, Mission and Values, developed for the Community Strategic Plan 2017-2027 are:

Vision – A prosperous, diverse, vibrant and sustainable community

Mission – Serving today while building for tomorrow

Values – Service / Trust / Accountability / Respect / Solidarity

The Community Strategic Plan sets out four major goals and targets for achieving the goals. The relevant asset management targets are set out in Table 5 and feed into the levels of service performance parameters and targets in section 3.3.

³ Integrated Planning and Reporting Framework Asset Management Guidelines 2016

Table 5: Community Strategic Goals and Targets

Goal	Target
Community	Providing public library services to meet the lifelong learning and leisure needs of the community
	Supporting the strong sporting culture that has shaped Greater Geraldton's identity and lifestyle
	Encouraging informal recreation through well planned and developed public open space, cycle/walk paths and green streetscapes
Environment	Sustainably maintaining public open spaces and recreation areas
	Promoting, researching and implementing practices such as improved and innovative waste management, water reuse and renewable energy production
	Researching, promoting and providing sustainable infrastructure, services and utilities
	Providing accessible community spaces, parks, natural areas, sport and recreational facilities that equitably service the whole community
	Providing a fit for purpose, safe and efficient infrastructure network
	Applying financial sustainability principles to ensure a coordinated and integrated approach to infrastructure planning, implementation, maintenance and renewal
	Maintaining integrated asset management systems that effectively maintain and replace community assets
Economy	Developing and maintaining infrastructure that increases the potential for business and investment
	Revitalising the CBD through economic, social and cultural vibrancy
Governance	Preparing and implementing short to long term financial plans and ensuring the City's LTFP delivers the community goals and aspirations in a sustainable and affordable manner

The actions required to achieve the goals are set out in the Corporate Business Plan 2017-2021. In particular, Outcome 2.4 includes 20 specific asset management actions items.

2.3 Governance

The Governance of the City is separated between the Council and the Executive. The Council is responsible for all matters relating to governance, policy, local laws and budget appropriation on behalf of its constituents. The Executive is responsible for enacting the policies, local law and providing advice the Council on the administration and financial management of the City including the management of the assets in accordance with the Local Government Act 1995.

The Chief Executive Officer (CEO) has the responsibility for managing and operating the City's assets in an efficient and effective manner to achieve the City's Level of Service performance targets. The CEO has delegate the asset management responsibilities for specific asset classes to the Directors and Managers as shown in the diagram below:

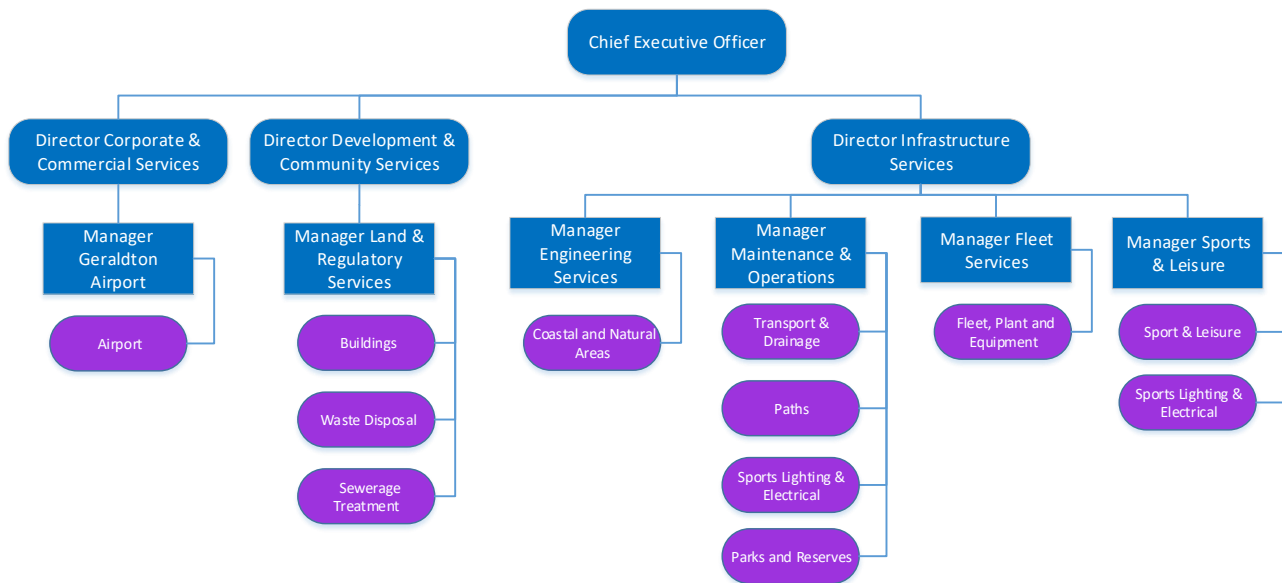


Figure 6: Asset Class Responsibilities

2.4 Stakeholder management

The primary vehicle for engaging with the Community is the community strategic planning process. The current outcomes from the community consultation process are documented in the Community Strategic Plan 2017-2027. A revision of the plan is scheduled to commence in the later part of 2019, subject to Council endorsement. The City also engages with the community on specific issues on an as needed basis. For example, the City conducted a survey with the residents in June 2017 on communications to understand how the community wanted to engage with the Council and their preferences for receiving information from the City.

The main message from the Community Strategic Plan community engagement process was:

“Our environment and coastal lifestyle is regarded as our most valuable le asset and is the reason people live here.”

“People want to continue to experience the lifestyle we all enjoy, but at the same time encourage economy and industry to make the most of opportunities that comes our way and will benefit the community.”

These messages translate into the strategies and actions detailed in the Corporate Business Plan 2017-2021.

The City has long recognised that the best solutions are that are made collaboratively between Council, City administration and the community using the foundation of deliberative democracy.⁴ The first round of community consultation occurred in 2013-14 with the formation of the Participatory Budgeting process. Over the past six years, the City has engaged the community in four Participatory Budgeting projects including:

- 10 Year Capital Works Community Panel in 2013
- Range and Level of Services Community Panel in 2014
- the Community Summit in 2015

⁴ City of Greater Geraldton, Participatory Budgeting 2019, Project Brief, May 2019

- Mullewa Services Summit in 2016.

The City is proposing to undertake a community engagement process in the near future, subject to Council endorsement. The proposed Participatory Budgeting Project may involve two community juries who will examine and report their recommendations on;

- The 10 Year Capital Works Plan, and
- The Range and Levels of Service

The agreed outcome from the Jury recommendations may then be used to inform Council in planning for the future and any revision to this SAMP.

2.5 Legislative requirement

The following legislative requirements have been considered in developing the Asset Management Policy, Strategic Asset Management Plan and each of the Asset Management Plans:

- Local Government Act 1995
- Local Government Regulations
- Australian Accounting Standards Board
- Australian Standards

In addition, Asset management guidance is provided in:

- ISO 55000, 550001 and 55002 – Asset Management
- IPWEA – International Infrastructure Management Manual 2015

2.6 Asset management policy

The asset management policy was endorsed by Council in January 2017. It sets out the objectives for asset management, provides a policy statement of the applicability of the policy and the key principles of asset management. The AM Policy has been revised in draft in 2019 and currently going through the review process before submission to the Council for approval.

The finalisation of the review of the draft Asset Management Policy in line with the current organisational structure and endorsement by Council has been included in the improvement plan in section 7.2.

2.7 Asset summary

The following section provides a summary of the assets covered by each of the 11 asset classes:

2.7.1 Transport & Drainage

The transport and drainage asset class includes:

- Sealed roads
- Unsealed Roads
- Kerbs and gutters
- Car Parks

- Roundabouts, medians and islands
- Bridges
- Stormwater drainage pits, pipes and channels
- Signs

The summary of financial and physical attribute information is provided in Table 6.

Table 6: Transport and Drainage Asset Summary

Asset	No of Asset	Quantity	Replacement Value <small>See Note 1</small>	Information Source
Roads Seal	3477	830 km	\$368,000,000	1
Unsealed Roads	489	1280 km	\$211,000,000	1
Roadside Kerbs		865 km	\$56,000,000	1
Roundabouts	63	648 sqm	\$12,881,000	1
Median Islands	357		\$7,000,000	1
Carparks	150	150 km	\$16,000,000	1
Bridge	8		\$9,536,000	2
Culvert Bridge	16		\$960,000	2
Culvert Bridge/Floodway	3		\$180,000	2
Floodway	10		\$600,000	2
Drainage Pipelines	6833	>150 km	\$18,198,000	3
Drainage Pits	7586		\$29,907,000	3
Drainage Sumps	235		\$2,204,000	3
Drainage End Structures	277		\$650,000	3
Culverts	232		\$950,000	3
Stormwater Pumps	10		\$650,000	3
Signs	6094		\$1,473,000	4
Total			\$736,189,000	

Note 1: Replacement Values have been rounded to the nearest thousand dollars.

The information in Table 6 was sourced from:

1. Roads Asset Management Plan (concise) May, 2019

2. Financial Asset Register
3. Stormwater Asset Management Plan (concise) Draft 2019, Table 1.2.B
4. Financial Asset Register

The Drainage and Roads AMPs contain information on the assets condition and operations and maintenance costs. The Bridge Structural Inspection Report provides condition assessments for the eight bridges and maintenance recommendations, but did not provide cost information for the remediation works needed to restore the condition of the bridges. Similar information is not currently available for the signs assets. The physical condition of the assets is summaries in Table 7:

Table 7: Transport Condition Summary

Asset Type	Good / Very Good	Fair	Poor / Very Poor
Roads	75%	20%	5%
Bridges	50%	38%	12%
Drainage	58%	20%	21%

The Transport and Drainage AMPs indicate that the combined operations and maintenance budgets for 2018-19:

- Roads: \$5,000,000. On current expenditure trends and future forecasts this figures needs to be adjusted to align with the LTFFP. From 2016-17 this figure has reduced by around \$700,000 to annual and current amount of around \$3.8m.
- Drainage: \$996,310. This figure aligns with the annual budget of around \$1m.

An improvement action has been included in section 7.2 to reconcile the asset management expenditure forecasts with the data used to generate the Long Term Financial Plan.

2.7.2 Buildings

The buildings asset class includes the following asset types:

- Administration – buildings used for Council administration
- Community & Arts - community use, including halls, the arts, seniors, community interaction
- Sport, Recreation & Leisure – sporting clubs and leisure facilities
- Services - Fire stations, family day care, health clinics
- Amenity - provide services to the community, such as toilet facilities, rubbish disposal
- Utility – facilities that support the Council’s operational and field activities, such as depots & workshops
- Heritage - Assets on the State Heritage List. The Art Gallery is Heritage listed, however is included in Community & Arts because it’s function is the arts
- Property Management - assets that the Council has on tenure or lease arrangements with a third party, such as staff housing, Sail Inn and SES Depot

The following information was extracted from the 2012 AMP and needs to be updated:

Table 8: Buildings Asset Summary

Asset Type	No of Asset	Replacement Value
Administration	3	\$20,000,000
Community & Arts	17	\$48,000,000
Sport, Recreation & Leisure	42	\$38,000,000
Services	19	\$5,400,000
Amenity	48	\$6,000,000
Utility	35	\$2,600,000
Heritage	11	\$7,400,000
Totals	153	\$107,400,000

The buildings are managed through an annual condition appraisal that identifies the condition rating of the building elements and the refurbishment and renewals requirement over a five year period. As better unit rates data is added to Assetic, the level of confidence in the forecast expenditures for asset class will improve.

The current forecasts expenditure requirements for buildings include \$1,339,000 over the next five years. The majority of the expenditure (54 percent) is for the Civic Centre. This appears very low when compared to the replacement value of the assets. Generally, maintenance and renewals expenditures should be in the order of 4 percent of the replacement value of the assets (\$4.3 million).

The information currently available on the management of the buildings assets is contained in the 2012 AMP, which is out of date. The buildings assets have been loaded into Assetic and a condition assessment of all buildings has been completed during 2018-19 by the in-house building supervisor. Additional information will be added to this section as it becomes available. A current summary of the condition of the buildings was not available during the preparation of this SAMP and will be included in later versions.

2.7.3 Paths

The City's paths network includes concrete, concrete slab, brick and concrete pavers and asphalt. Paths are provided and maintained in accordance with the Levels of Service⁵. This document includes the specification ISM007 for Concrete Pathways.

The summary of the types of paths is included in Table 9.

⁵ Footpaths: Levels of Service, June 2018

Table 9: Summary of Paths Assets

Asset Type	No of Asset	Length	Replacement Value ⁶
In-situ concrete	918	124 km	\$29,295,000
Asphalt	145	23 km	\$3,385,000
Concrete Slabs	203	18 km	\$3,460,000
Brick Paving	241	20 km	\$5,708,000
Gravel	46		\$311,000
Natural	11		\$136,000
Totals	1564		\$42,295,000

The replacement value shown in Table 1 of the Footpath Level of Service document is significantly higher (\$57 million) than that shown in the Financial Asset Register. The AMP has used an increased rate for replacement based on current construction costs of recent pathway projects. This discrepancy will require reconciliation. An improvement action to reconcile the information generated through the asset management process with that used to prepare the Long Term Financial Plan is included in section 7.2.

The management strategy for footpaths is based on providing a safe passage for pedestrians and cyclists as well as replacement of the older concrete slab paths with in-situ concrete. The Footpaths Levels of Service document recommends an average annual renewals expenditure of \$1,962,000, which is \$1,005,000 more than the FY2018-19 budget. The condition and age profile data indicated that the majority of the assets are in good or very good condition and that the majority of the paths were constructed after 2000. Approximately \$4 million of the paths are 40 years old and have been recommended for renewal in 2024. The renewals of these paths may need to be delayed to fit the current forecast budgets.

The operations and maintenance activities include repairs, sweeping and weed control has been budgeted at \$494,937 for FY2019-20. The future costs for the next ten years in the lifecycle cost model held at the same level on the assumption that the additional maintenance costs for the new paths created through the Capital Works Program would be offset by the removal of the higher maintenance cost slab concrete paths.

2.7.4 Sport, Recreation & Leisure

Sports, Recreation & Leisure assets include;

- Geraldton Aquarena
- Mullewa Swimming Pool
- Foreshore Water Park
- Sporting Ovals, Courts and Playing surfaces
- Sports lighting and towers

⁶ FAR 2015 Valuations

An AMP and asset valuation is not currently available for the Sport, Recreation & Leisure assets. Work was commenced on developing a three tier asset hierarchy and prioritisation of each of the Sporting Facilities but did not include the aquatic facilities.

The management strategies for these assets includes delivering operational and maintenance services based on agreed Levels of Services and energy and consumables optimisation of aquatic facilities.

A renewals forecast for this asset class in the lifecycle cost model was based on the LTFP and the Capital Works program.

2.7.5 Lighting & Electrical

Lighting & Electrical assets include:

- Street Lights
- Public Open Space lighting
- Path lighting
- Carpark lighting
- External switchboards

The management strategies include optimisation of the energy cost through renewals of older style lamps with LED lamps and risk management of direct buried light poles. The Council has completed an audit of all lights and implements upgrades to direct buried and sports lighting. Further upgrades and renewals will be required to address the public risk exposure from these assets.

Table 10: Summary of Lighting & Electrical Assets

Asset Type	No of Asset	Replacement Value ⁷
Car Park	174	\$1,111,315
Public Open Space	166	\$920,854
Street Light	248	\$3,262,870
Totals	590	\$5,285,069

The Financial Asset Register’s replacement value of the assets was \$6,517,659 in June 2015. The Lighting Inspection Report – March 2019 indicates that 43 percent of the assets are in good or very good condition, 41 percent are in fair condition and 17 percent are in poor or very poor condition.

The carpark, roads and apron floodlights at the airport are included in the airport asset class summaries.

2.7.6 Parks and Reserves

Parks and Reserves assets including:

- Passive Open Space
- Playgrounds and Play Equipment
- Entry Statements including artwork, statues and ornaments

⁷ 2018 Lighting Valuations Schedule-May 2019.xlsx

- Passive Furniture (shade structures and sails, seating, rubbish bins and barbeques)
- Turf and Reticulation

The 2012 Parks Asset Management Plan included Playing Fields and sports equipment, which is covered under Sports, Recreation and Leisure asset class in this SAMP. A summary of the assets is provided in Table 11.

Table 11: Parks and Reserves Asset Summary

Asset Type	No of Asset	Replacement Value ⁸
Park Furniture	2615	\$13,047,000
Play Equipment	180	\$3,838,000
Play Grounds	79	\$504,000
Turf & Reticulation	90	\$13,278,000
Total	2964	\$30,667,000

The 2012 AMP predicted a growth in the number and annual cost of Parks and Reserves assets based on a forecast increase in Geraldton's population of 39,368 to 59,859 by 2030. The current population projections are flat or very slight increase and therefore the increase in the assets is unlikely to occur within the ten year forecast of this SAMP.

While the current condition summary of the assets is not available, the 2012 AMP reported an average condition score of between 2.3 and 2.9 from a survey conducted in 2011.

The programmed playground inspections drive the maintenance and replacements of the equipment. The frequency of the inspections are set by the levels of service:

- Premier Parks – weekly
- All others – six monthly
- Kid safe inspections - Annually

2.7.7 Coastal and Natural Areas

The Coastal and Natural Areas assets class include:

- Boat Ramps
- Groynes and Rock Walls
- Beaches
- Promenades
- Natural bush and coastal dunes

An AMP and asset register were not available for the assets. The Coastal Hazard Risk Management and Adaption Planning Project completed in January 2019 provides an overview of the coastal assets and recommendations to address the impacts of climate change. The Coastal Hazard and Risk Assessment Report

⁸ 2018 Lighting Valuations Schedule-May 2019.xlsx

concludes that most of the coastal assets are at risk and that the City should adopt a retreat strategy. The report also highlights that inundation flooding of the CBD is likely in severe storm events. The Part 1 report includes an Asset Register (Appendix A.4) and Economic Analysis (A.7). The Asset Register is graphical based and does not include any physical attribute or financial information.

A 2003 Memorandum of Understanding (MOU) between the City and Mid West Ports Authority sets out the responsibilities for maintenance of the coastal assets with adjoining boundaries. The MOU was updated in 2006 to reflect the merger of the City with the Shire of Greenough.

2.7.8 Fleet, Plant and Equipment

Fleet, Plant and Equipment include all mobile vehicles, maintenance and construction plant and auxiliary vehicles such as trailers.

Table 12: Fleet, Plant and Equipment Asset Summary⁹

Asset Type	No of Asset	Replacement Value /Purchase Price	Assets
Major Plant	92	\$11,756,564	Trucks, Graders, Loaders, Excavators, Rollers, Tractors, Forklifts, Skid Steers, Sweepers, ATVs, Mini Bus
Light Vehicles	78	\$2,664,754	Utilities, Cars, Vans, Motor Cycles
Unmetered	86	\$2,284,277	Large Trailers, Small Trailers, Towed Mowers, Pumps, Compressors, Large Generators
Small & Minor	206	\$273,264	Mowers, Compactors, Cherry Picker, Bobcats, Brush Cutters, Blowers, Chainsaws, Generators
Total	462	\$16,978,859	

The AMP and FAR do not include a breakdown of the value of the assets. The 10 Year Plant Replacement Plan includes the purchase price and forecast cost of the assets, but not the current fair value of each asset. The FAR indicates that the assets were valued at \$12,000,000.

The assets are managed on age and utilisation based renewals recommended by the Infrastructure and Public Works Engineers (IPWEA) Plant and Vehicle Management Manual 2012.

2.7.9 Waste Disposal

The waste disposal assets include the land fill facilities at Meru and Mullewa. The facility at Mullewa is a simple land fill operation. The facility at Meru includes recyclables separation, four land fill cells, and liquor recovery ponds. The financial asset register for the facility includes nine buildings and two roads, which are included in the respective asset class summaries. A summary of the assets is provided in Table 13.

⁹ 2018 Fleet Asset Management Plan

Table 13: Waste Disposal Asset Summary

Asset Type	No of Asset	Replacement Value ¹⁰
Cells	4	\$5,240,000
Ponds	6	\$1,933,000
Support Infrastructure	8	\$503,000
Total	18	\$7,676,000

A Strategic Waste Management Plan was developed in November 2012 for the City and the surrounding Shires. A Waste Management Plan was prepared in February 2011 to guide the development of the Meru site. Current waste management strategies to be considered in the SAMP include:

- Construction of Cell 5
- Construction of a waste transfer station and recycling centre
- Introduction of a second bin FOGO service

An AMP has not been developed for the asset class and information on the condition of the assets has not been completed.

2.7.10 Sewerage Treatment

The sewerage treatment assets are located in the township of Mullewa. The system was constructed in 1974 and includes the sewer collection pipe network, three pump stations and treatment plant¹¹. The treatment facility is a small pond system which includes solids separation, septic tank primary treatment and evaporation pond.

The replacement value of the assets was established in the Asset Register at \$313,281 in 2018. The asset register includes the effective life of each asset and the estimated replacement values.

2.7.11 Airport


The Geraldton Airport is located 11.7 kilometres from the Central Business District. The airport underwent and extensive runway, taxiway and apron refurbishment program as well as a runway extension to 2400 m to enable unrestricted access for A320 / B737 aircraft. The airport has been developed in accordance with the Airport Master Plan 2012-2030.

The airport's main assets include:

- Runway
- Taxiways
- Parking Aprons
- Airport Terminal Building & Hangars
- Electrical infrastructure and lighting
- Car Parking

¹⁰ 2018 Lighting Valuations Schedule-May 2019.xlsx

¹¹ Mullewa Wastewater Operations and Maintenance Manual

- 
- Access Roads
 - Drainage
 - Fencing

The Airport AMP 2016 was updated in 2019 as an element of the Strategic Airport Asset and Financial Management Framework sponsored by the Department of Public Transport. The lifecycle cost model developed as part of the project estimated the value of the assets at \$74.3 million, including the new runway and taxiways. The Financial Asset Register replacement value of the assets was \$57.9 million (this value will be updated to include the new runway as part of the 2018-19 EOY process) based on the escalated values provided by the 2015 Fair Value.

The lifecycle model details an Operations and Maintenance expenditure of \$1.65 million per annum, and recommends upgrades of the runaway, taxiway and apron surfaces at 15 year intervals.

A condition assessment of the assets was completed for the preparation of the 2019 AMP. The majority of the assets were in good or very good condition.

3. Levels of Service

This section provides an overview of the processes used to develop Levels of Service (LoS) and the current maturity level of each asset class.

3.1 Introduction

Levels of services are key business drivers and influence asset management decisions. Levels of service statements describe the outputs the City intends to deliver to customers and stakeholders. Levels of service relate to service attributes such as quality, reliability, responsiveness, sustainability, timeliness, accessibility and cost. Levels of service provide the link between higher level corporate and asset management objectives and more detailed technical and operational objectives.¹²

An overview of the relationship between levels of service and the City's corporate processes is shown in Figure 7.



Figure 7: Alignment of Objectives, Levels of Service and Performance

When setting levels of service it is important to have a view of the associate costs and risks. The higher the level of service target generally the higher the cost and potentially lower the risk. It is important to have a view of what an optimal solution may be. This is demonstrated by the Asset Management Balance Equation shown in Figure 8.

¹² International Infrastructure Management Manual 2016



Figure 8: Asset Management Balance Equation

3.2 Asset management objectives

The asset management objectives of developing levels of service is to set performance targets that allows the City to establish decision trigger points through key performance targets and measure performance trending over time.

Asset objective should be established for each asset class that establish what service the assets provide and how the asset is required to achieve the Corporate Business Objectives. The asset management objectives need to consider both community and technical requirements.

3.3 Performance measures

Performance measures can be qualitative or quantities and are used to identify when intervention is required for assets that are not meeting target levels of performance. Performance measures need to follow the SMARTER principles set out in section 2.2.3 of the International Infrastructure Management Manual:

- Specific
- Measurable
- Achievable
- Relevant
- Timebound
- Evaluation
- Reassess

The status of levels of service for each asset class is summarised in Table 14.

Table 14: Levels of Service Summary

Asset Type	Maturity Level	Source Document
Roads	Basic	2019 AMP (Draft) Roads; Level of Service Maintenance February 2017
Drainage	Basic	2017 AMP
Buildings	Aware	2012 AMP
Paths	Basic	2019 AMP (Draft) Footpaths: Level of Service June 2018
Sport, Recreation & Leisure	Aware	Not documented
Lighting & Electrical	Basic	Not documented
Parks & Reserves	Basic	2012 AMP
Coastal and Natural Areas	Aware	Not documented
Fleet, Plant and Equipment	Core	2018 AMP
Waste Disposal	Aware	Not documented
Sewerage Treatment	Basic	Not documented
Airport	Basic	2019 AMP

Table 15: LoS Maturity Levels

Maturity Level ¹³	Description
Aware	Levels of service requirements generally understood but not documented or quantified.
Basic	Asset contribution to organisation's objectives and some basic levels of service have been defined. Customer Groups defined and requirements informally understood.
Core	Levels of service and performance measures in place covering a range of service attributes. Annual reporting against performance targets.
Intermediate	Levels of service and cost relationship understood. Customers are consulted on significant service levels and options.
Advanced	Customer communication plan in place. Levels of service are integral to decision making and business planning.

¹³ International Infrastructure Management Manual Figure 2.2.1

4. Demand Management Plan

Demand management considers the external changes that impact the types of assets needed to provide services, the capacity or performance requirements of the existing assets. For example, the structural and performance standards for most facilities and infrastructure assets are detailed in the international and Australian standards, which are updated and amended from time to time. Similarly, legislative requirements are amended periodically which create the need to operate or maintain existing assets, or upgrade assets to meet the new requirements. This section provides an overview of the current demand management changes and the likely impact on the assets.

4.1 Background

Demand analysis is an outwards facing process that identify changes in community expectations, the environment, the economy and a governance.

4.2 Growth

The population of Geraldton has declined over the past six year at an average rate of -0.35% to 38,738 persons in 2018. The population trend for Geraldton has been well below the Australian average¹⁴. If the slow decline rate continues for the next ten years, the population of the City could be 37,272 by 2029.

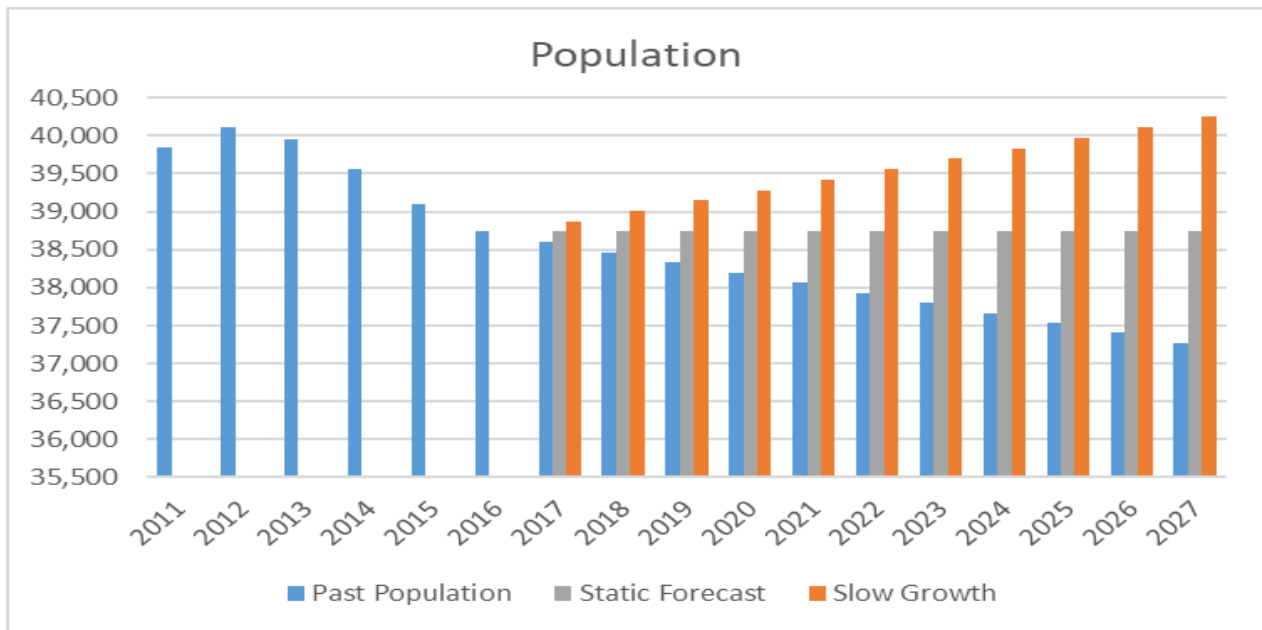



Figure 9: Population Trends 2011 to 2018

The graph includes a projection of the population for the next ten years based the 0.35% decline continuing, a static population and a slight growth of 0.35%

¹⁴ Australian Bureau of Statistics 2018 data



The main factor for population is economic drivers that create employment and bring people into the region. The demand projections in the 2012 AMPs were based on far higher growth rates. The current data indicates that the slight growth rate will not have a significant impact on the need for or use of the assets.

4.3 Customer expectations

An extensive community survey was completed in 2017, culminating in a Community Workshop in May 2017 for the Community Strategic Plan. A new customer survey is being proposed in the near future to reassess the community expectations and aspirations for the next ten years. The main outcome of the 2017 survey and workshop were that the resident's values the environment and the coastal lifestyle and that they wanted to encourage economic developments that provided a benefit to the community.

The community expectations are not expected to change from the 2017 survey although protection of the environment and management of natural resources is expected to be an emerging theme based on community surveys of other local governments completed in the past two years. One outcome may be that the community expect the City to adopt green initiative such as changing the light vehicle fleet to rechargeable vehicles and installation on alternate energy sources for the recreation facilities and Council buildings. Not enough data is available to confirm these assumptions and therefore have not been included in this version of the SAMP.

The Range and Levels of Service consultative process to be completed under the Participatory Budget Project should provide some insights into the community attitudes and expectations that may influence the need for or use of the assets.

4.4 Technology

Technology is imbedded in many assets in the control and monitoring systems for buildings, vehicles, swimming pool plants, sewerage pumping systems and photoelectric controls for lights. Changes to technology include the development of new systems and components and upgrades to the software that enables electronic devices to communicate and activate.

While technology has not been identified in any of the AMPs as a driver of change, the upgrades of fire protection and security systems is expected to be an emerging issue over the next ten years.

In addition, the City is keen to embrace Smart Technologies, particularly when it enable more efficient or effective delivery of services. Examples include electronic monitoring and controls of lighting, security, access controls to ablutions blocks and traffic counts. Each case will be examined on its merits and improvements recommended on a cost benefit basis.

4.5 Climate change

The current science behind climate change predicts an increase in the intensity of storm events and an increase in sea levels. The main impact is expected to be of the drainage systems that were designed under past rainfall data and the Coastal assets to erosion and inundation. The Coastal Hazard and Risk Assessment Project identified that many of the coastal assets would be threatened in the longer term and inundation of the CBD may occur. The project concluded that a strategy of abandon and retreat was the most viable option for most of the coastal assets and while increasing the height of the current groynes would delay the need to retreat, eventually, the beaches and boat ramps may need to be abandoned and replaced with new assets in a new location.

A drainage study of the CBD is Flood Study due for commencement in late 2019. The study will produce inundation maps and prompt development of emergency response plan and the development of a stormwater infrastructure Plan by the middle 2020. The outcome of this work will be included in the next revision of this SAMP.

The City have recently been granted funding to investigate the Foreshore Coastal Nodes. This study will feed into management strategies for the Foreshore coastal area and guide actions for a measured retreat as required. The outcome of this work will be included in the next revision of this SAMP.

4.6 Legislation and codes of practice

Changes to legislation and codes of practice can occur with little warning and result in the need to upgrade or replace assets. For example, the National Construction Code sets out the requirement for the design and construction of buildings, including fire protection and egress, plumbing, air quality and energy management. The code was updated in May 2019 and new condensation requirements and changes to the plumbing code from the 2016 edition. New building need to comply with the current code and refurbishment of more than 25 percent of an existing building will trigger a current code compliance requirement.

The current AMPs have not identified any legislation compliance requirements. The key legislation that needs to be considered is detailed in Table 16.

Table 16: Legislative and Regulatory Compliance Requirements

Legislation	Asset Class	Requirement
Aboriginal Heritage Act 1972	All	Preservation of the community places and objects used by traditional owners.
Aboriginal Heritage Regulations 1974	All	Preservation of the community places and objects used by traditional Owners.
Australian Accounting Standards (AASB)	All	Sets out the financial reporting standards relating to infrastructure assets. Standards of particular relevance to Infrastructure Assets.
Aviation Transport Security Act 2004 and Regulations	Airport	Regulatory framework to safeguard against unlawful interference with aviation. Refers to the Transport Security Plan.
CASA Regulations MOS Part 139	Airport	Manual Of Standards for airports.
Conservation and Land Management Act 1984	All	Establishment of the Conservation and Parks Commission and powers of the commission.
Disability Services Act (1993) and Regulations (2004)	All	Furtherance of principles applicable to people with disabilities, for the funding and provision of services to such people that meet certain objectives, and for the resolution of complaints.
Environmental Protection Act 1986	All	Requires permit and flora survey prior to vegetation removal, relates to the prevention of pollution – either to land air or water.
Environmental Protection and Biodiversity Act 1999	All	Provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance.
Health (Pesticides) Regulations 1956	All	Regulates the possession and use of pesticides.

Legislation	Asset Class	Requirement
Health Act 1911	All	Discharging causing pollution to waterways.
Heritage of Western Australia Act 2019	All	Provides for the conservation of places which have significance to the cultural heritage in the State, to establish the Heritage Council of Western Australia, and for related purposes.
Land Administration Act 1997	Roads and Buildings	An Act to consolidate and reform the law about Crown land and the compulsory acquisition of land generally, to repeal the Land Act 1933 and to provide for related matters.
Local Government Act 1995	All	Sets out role, purpose, responsibilities and powers of local government.
Main Roads Act 1930	Roads & Paths	The power to legislate the maintenance and works on public roads.
Motor Vehicle Standards Act 1989 (Australian Design Rules)	Fleet	The Australian Design Rules (ADR) are national standards for vehicle safety, anti-theft and emissions.
Native Title Act 1999	All	Native title recognises the traditional rights and interests to land and waters of Aboriginal and Torres Strait Islander people. Native title claimants can make an application to the Federal Court to have their native title recognised by Australian law.
National Asset Management Framework Legislation (2010)	All	Focuses on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms.
Occupational Health and Safety Act 2000 (OH&S Act)	All	The guidelines for employees and employers to undertake within the work environment.
OSH Regulations 1996	All	The guidelines for employees and employers to undertake within the work environment.
Pedestrians: Guidelines (2016)	Paths	Guidelines for the design of pedestrian paths.
Planning & Designing for	Paths	Guidelines for footpath design consideration.
Planning & Development Act 2005	All	Defines the land use and zoning in relation to infrastructure.
Protection of the Environment Act 1997	All	Environment protection legislation administered by the Department of Environment and Climate Change.
Road Management Act 2004	Roads & Paths	Set out responsibilities in relation to the management of road assets.
Roads to Recovery Act 2000	Roads	The main object of this Act is to provide money for roads expenditure by local governing bodies.
Road Traffic Act 1974	Roads	Laws and legislation surrounding road network.
Road Traffic Act 1974	Roads & Paths	Laws and legislations surrounding road networks.
Road Traffic Regulations 1995	Fleet	Towed Agricultural Implements
Sporting Bodies Code of Practice	Sports, Leisure & Recreation	Set out size, quality and other requirements for sporting field preparation for different sports and grades of competition.

Legislation	Asset Class	Requirement
The Protection of the Environment Operations Act 1997 (POEO Act)	All	The POEO Act enables the Government to set out explicit protection of the environment policies (PEPs) and adopt more innovative approaches to reducing pollution.
Transport Co-ordination Act 1966	Roads & Airport	An Act to provide for the co-ordination, planning and advancement of all forms of transport in this State, to provide for the review, control and licensing of transport services and for incidental and other purposes.
Transport Operations (Road Use Management) Act (1999)	Roads & Fleet	Provides for effective and efficient management of road use across the State.
Wildlife Conservation Act 1950	All	Provides for the conservation and protection of native flora and fauna.
Workplace Health & Safety Act (1996)	All	The guidelines for employees and employers to undertake tasks within the work environment. To ensure compliance with workplace health and safety rules to minimise the potential for employee harm or injury.

The list of legislation and regulations was extracted and updated from the asset class AMPs. Additional references may be applicable to those asset classes that do not have AMPs and will need to be added when the AMPs have been prepared.

4.7 Demand management plan

The demand management plan identifies the asset management actions needed to respond to demand changes which have an impact of how existing assets are operated, maintained, renewed or upgrade, and what need assets may be required to meet the future demand for services the City provides.

5. Lifecycle Asset Management Plan

5.1 Introduction

The lifecycle asset management plan summaries the processes used to make decisions, the management strategies used for each asset class and the key issues that will need to be considered over the next ten years.

5.2 Asset Management system

An asset management system is defined by the International Infrastructure Management Manual 2016 as:

A set of interrelated or interacting elements of an organisation. Including the AM policy, AM objectives, AM strategies, AM Plans, and the processes to achieve these objectives.”

An Asset Management System (AMS) sets out an organisation’s approach, processes and techniques for directing, integrating and controlling asset management activities to achieve business objectives. The corporation is required to develop and implement plans, systems and processes to manage its assets, having regard to the ISO 55001 (requirements of an asset management system). Figure 10 is an example asset management system produced by the Institute of Asset Management.



Figure 10: Asset Management System - Institute of Asset Management 6 Box Model

The explanation of the processes used in the 6 Box model is provided in



Figure 11: Asset Management Processes

5.3 Asset data and information

The City uses the following systems to manage its assets:

- Assetic and Assetic Predictor (Asset database and predictor software system)
- CadCorp GIS System for mapping assets
- Intramaps for publishing asset information to City workers and the public
- Synergy (financial system)
- Microsoft excel

The asset management data and information was migrated from MyData (previous incarnation of Assetic), excel spreadsheets and ROMANII into Assetic in 2017. The verification of data and setting of forecasting decision processes is an ongoing process:

- Drainage assets are being verified and updated in Assetic and GIS.
- Fleet assets have been migrated to Assetic, but the system does not have functionality to record mileage, run hours or fuel consumption. Fleet use spreadsheets to track the assets and plan replacements.
- Roads and paths are fully migrated and a mobile data application is being used for defects identification and work orders.
- Parks and Reserve data has been fully migrated.
- Buildings data has been fully migrated and the Assetic Predictor is being used to generate renewals predictions based on unit rates, condition and asset decay profiles.

The Synergy financial system is used to record the Financial Asset Register with depreciation and fair valuation information.

5.4 Asset Management Plans

Asset Management Plans were developed for most asset classes based on the NAMS:PLUS templates during 2012. Some of the AMPs have been updated in recent years. The following table provides a status of the current AMPs.

Table 17: AMP Status

Asset Class	AMP Date	Status	Comment
Airport	2019	Draft	Prepared for the PTA Aviation Asset Management and Financial Plan project
Buildings	2012	Draft	Out of date.
Bridges			Not started
Coastal & Natural Areas			Not started
Drainage	2017	Draft	Complete – Review started in 2019 but status of this document is unclear. Review due for update in 2020
Fleet, Plant & Equipment	2018	Complete	Comprehensive, except for asset sustainability ratios
Lighting & Electrical			Not started
Parks and Reserves	2012	Final	Out of date.
Paths	2019	Draft	Concise format - Complete and in review
Roads	2019	Draft	Concise format - Incomplete
Sports, Recreation and Leisure			Not started
Sewerage Treatment	2018		Complete system investigation and asset register completed with renewal forecasts in place.
Waste Disposal			Not started

The updating of the out of date AMPs and creation of new AMPs is included in the Improvement Plan in section 7.2.

5.5 Condition assessment process

The City currently used a standardised five point condition rating scale to assess the condition and performance of the assets. The levels of condition assessment and the process used to determine condition vary from level two (element) and regular inspection for buildings and fleet to three yearly for roads and no assessments for sewerage and coastal assets. Therefore a comprehensive assessment of the state of the assets is not possible and renewals forecasting has been based on asset age for most asset classes.

Condition assessment rating systems provide a standardised descriptive framework that allows comparative benchmarking between similar asset types¹⁵. The conditioning rating descriptions provide a consistent assessment and rating score irrespective of when or who completed the assessment.

Additional information on assessing the condition and performance of municipal assets is provided by IPWEA in the following Practice Notes:

- Practice Note 1: Footpaths & Cycleways

¹⁵ International Infrastructure Management Manual 2016, section 2.5.4

- Practice Note 2: Kerb & Channel (Gutter)
- Practice Note 3: Buildings
- Practice Note 5: Stormwater Drainage
- Practice Note 7: Water Supply & Sewerage
- Practice Note 9: Roads Pavement (Visual Assessment code) suite
- Practice Note 10.1: Parks Management

Table 18 provides a generic asset condition rating table that can be used for the majority of assets. It can be customised for each asset class and included in each asset class AMP.

Table 18: Condition definition summary

Asset Condition Rating	Summary Definitions
1 Very Good	Asset is near new, recently constructed, installed and commissioned, or recently rehabilitated back to new condition. Remaining serviceable life typically 100%.
2 - Good Condition	Asset is sound, displays superficial defects, with only minor signs of deterioration, primarily caused by general wear and tear. Remaining serviceable life typically 80%.
3 – Fair Condition	Asset is sound but shows signs of moderate wear and tear. Remaining serviceable life typically 30%.
4 - Poor Condition	Asset has defects evident e.g. to 20% of its surfaces and finishes and requires significant attention. Appearance poor e.g. cracking, staining, leaking, breakages. Remaining serviceable life typically 10%.
5 - Very Poor Condition	Asset is at end of life or exceeded its serviceable life. Asset is unsound and is not in operational condition. Its general appearance is poor e.g. eroded protective coatings to more than 30% of its surfaces. Asset is badly damaged or in a weakened state. Remaining serviceable life typically 0%. The asset's primary functional integrity has been compromised.

The current frequency of condition assessment inspections and availability if condition assessment data are provided in Table 19:

Table 19: Condition Assessment Frequency and Data Availability

Asset	Inspection Frequency	Data is current
Buildings	Annual	Yes
Bridges and major culverts	External consultant 2 to 3 years	Yes
Roads	2 to 3 years	Yes
Paths	2 to 3 years	Yes
Lighting & Electrical	Western Power Street Lighting – annual by CGG Other street lights – 2 yearly, but more frequent using a risk based assessment of asset failure	Yes
Playgrounds	Yearly and as per LoS hierarchy	Yes
Irrigation	Pumps and Tanks – 2 yearly	Yes
Drainage	Aligned with the roads renewal program. No planned schedule	Partial
Fleet	Annual	Yes
Mullewa Sewer	To be determined	Yes
Bus Stops	2 yearly	Yes
Fire hydrants	Yearly inspection and test by CFA	Yes

5.6 Risk assessment

Effective risk identification and management leads to better understanding of an asset’s risk exposure and the subsequent actions and investment required to maintain or mitigate the risk. The City’s risk assessment processes are set out in the Risk Management Framework 2018 document and are based on ISO 31000:2009 Risk management – Principles and guidelines. The City uses the Promapp Risk Module to store, document and report on the City’s Risks and treatments. The risk management process is standardised across all areas of the City. The following diagram outlines the process with the following commentary providing broad descriptions of each step. Specific expanded guidance are provided in the Risk Management Procedures document.

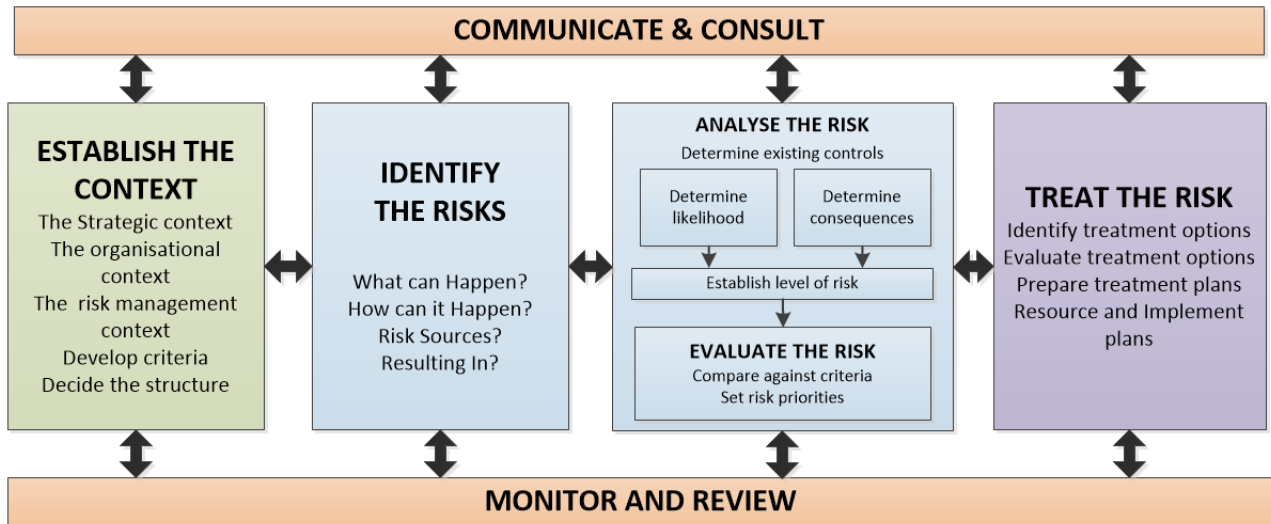


Figure 12: Risk Management Process

In an asset management system, risk assessment covers risk identification, risk analysis and risk evaluation.

5.6.1 Risk Identification

Risk identification is the process of finding, recognising and describing risks. The aim of this process is to create a comprehensive list of risks based on events that might create, enhance, prevent, degrade, accelerate, or delay the achievement of business objectives. This list should be aligned to business processes and the risk of not meeting the levels of service expected of the business process.

5.6.2 Risk Analysis

Risk analysis is the process of comprehending the nature of the hazard and determining the level of risk to business objectives. The risk to business objectives is described as a consequence if an event occurs and the likelihood or probability of the occurrence. The consequence is described against a range of economic outcomes, social, safety and reputational impacts.

Once the consequence of the risk event has been assessed, the likelihood of said event should be assessed. Table 20 is an example likelihood rating table.

Table 20: Likelihood assessment rating scale

Rating	Description	Frequency
A. Almost Certain	The event is expected to occur in most circumstances	More than once a month
B. Likely	The event will probably occur in most circumstances	More than once a year
C. Possible	The event might occur at some time	Once every 1-10 years
D. Unlikely	The event could occur at some time	Once every 10-50 years
E. Rare	The event may occur only in exceptional circumstances	Less than once every 50 years

Once the consequence and likelihood is assessed the risk level can be determined based on Table 21.

Table 21: Risk matrix aligned to the risk management standard

RISK MATRIX		CONSEQUENCE				
		1. Catastrophic	2. Major	3. Moderate	4. Minor	5. Insignificant
LIKELIHOOD	A. Almost Certain	Extreme	Extreme	High	Medium	Low
	B. Likely	Extreme	High	High	Medium	Low
	C. Possible	Extreme	High	Medium	Medium	Low
	D. Unlikely	High	High	Medium	Low	Low
	E. Rare	High	Medium	Medium	Low	Low

5.6.3 Risk Evaluation

Effective risk management requires a systemised approach to ensure risks are managed at the appropriate business management level and controls are proportional to the risk. Risk defines risk acceptance (risk tolerance) of the business, associated risk owners and actions required to be taken.

Table 22: Risk response hierarchy

ASSESSMENT		ACTION	
Extreme	Unacceptable	Board / Council	Report immediately to Process owner, General Management Risk treatment plan is required Immediate reporting to process owner
High	Undesirable	CEO	Decision on risk acceptance to be made by Process manager Risk treatment plan is required Development of mitigation is required where compliance is not achieved
Medium	Monitor	Management responsibility must be specified	Decision on acceptance of risk to be made by process manager Ongoing careful monitoring and management by routine process
Low	Acceptable	Manage by routine procedures	Decision on acceptance of risk by process manager Ongoing monitoring and management

5.6.4 Risk Treatment

For risks that are above the risk tolerance of the organisation and risk treatment plan must be developed and approved. The treatment of risks through a controls/mitigations process can reduce the risk. This process should have consideration of the effectiveness of controls and overall treatment effectiveness. Generic controls in order of effectiveness presented below:

1. Eliminate
2. Substitute
3. Isolate
4. Engineer
5. Administration
6. Personal Protective Equipment

5.7 Asset Management Strategies

The approach for the strategic management of the various asset classes should follow a reliability centred maintenance process. Figure 13 presents the reliability centred maintenance approach that is partially followed by the City's asset management teams. The approach steps through the high level decision process that should lead to an appropriate intervention strategy.

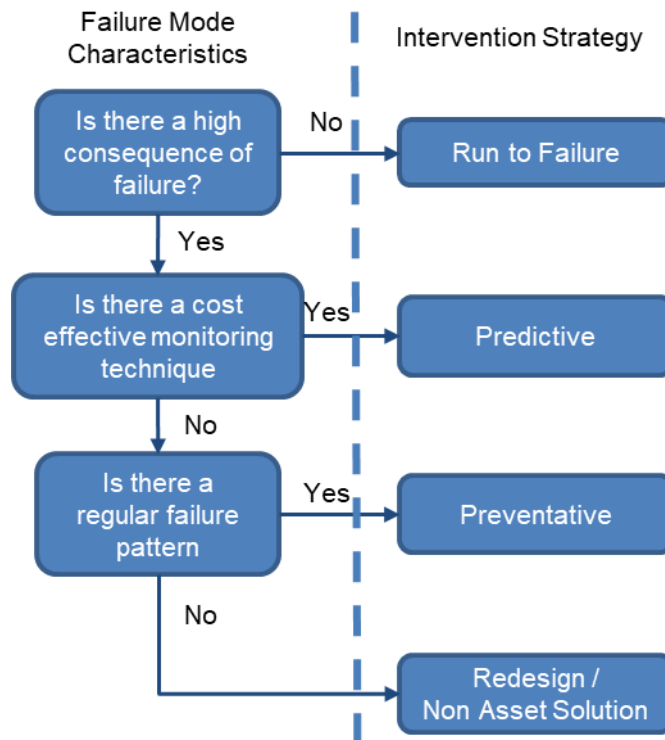


Figure 13: Reliability centred maintenance intervention flow chart

The description of the intervention strategies are provided in Table 23 .

Table 23: Table of intervention strategy definitions

Intervention Strategy	Description
Run to failure	Running an asset to failure is an acceptable business decision if the failure does not have significant impact on the business. The magnitude of the impact should be well understood and cost effectiveness determined before implementing this strategy.
Predictive	For assets with simple decay curves that are easily inspected, a predictive approach to maintenance and renewals is ideal. If the cost associated with doing the inspections is too high then that can swing the strategy away from being cost effective.
Preventative	For assets that are not cost effective to monitor/assess, and present with a regular failure pattern (after a number of hours or cycles of operation), a preventative approach to renewal and maintenance is viable.
Redesign / Non Asset Solutions	For assets that do not meet any of the above criteria but have the potential to cause significant business impact, it is recommended to re-assess the risk and determine the appropriate intervention. A non asset solution would be to modify the risk tolerability or levels of services of the business. If this is unacceptable, a redesign or an increase in redundancy to manage the risk is required.

The following table provides a summary of the recommended intervention strategy(ies) for each asset class:

Table 24: Management Strategies for each asset class

Intervention Strategy	Description
Transport & Drainage	Maintenance based on defect notification Renewal based on condition and asset hierarchy
Buildings	Maintenance based on condition appraisals Renewal on end of life of elements from condition appraisals
Paths	Maintenance based on defect notifications Renewals based on condition & asset hierarchy and risk associated with trip hazards for Slab Paved Paths.
Sports, Recreation and Leisure	Maintenance based on defect notification Renewals based on visual condition assessments
Lighting and Electrical	Maintenance on breakdown and preventative strategies from condition appraisals. Renewals based on condition inspections
Parks and Reserves	Maintenance based on defect notification and inspections Renewals based on routine inspections as per the LoS hierarchy
Coastal & Natural Areas	Maintenance based on defect notification Renewals based on visual condition assessments
Fleet, Plant and Equipment	Maintain in accordance with equipment suppliers O&M manuals Renewals on age or use based on Asset Utilisation table in AMP

Intervention Strategy	Description
Waste Disposal	Maintenance – to be determined Renewal – to be determined
Sewerage Treatment	Maintenance in accordance with the O&M manual Renewal based on advice from external resource
Airport	Maintenance in accordance with the AMP Renewals in accordance with the AMP

The maintenance strategies for the asset classes without AMPs will be developed when the AMPs are prepared. Asset custodians have a three year renewal plan for forward planning. These plans are based on formal and informal condition assessments, both in-house and external consultant driven.

5.8 Asset management maturity

The National Asset Management Assessment Framework project sponsored by the Department of Local Government Sports and Cultural Industries. The NAMAF assessment considers 11 asset management practice areas and scores respondents against 76 basic maturity assessments. The assessments were recorded using the Australian Centre for Excellence in Local Government website, which had not been updated and hence the assessments for all local governments were recorded as a result in 2015, irrespective of when they were completed. IPWEA have a similar maturity assessment tool which could be used to map the City's maturity over time.

The assessment completed by the City in January 2017 is summarised in Figure 14 indicated that the average score was 1.8 out of 3, indicating a maturity of "Establishing" in ISO55000 terms. The graph shows that levels of service and skills and processes were the areas of greatest weakness, and strategic planning was an area of strength.

Figure 15 shows the comparison of the City against its regional and LGA class peer groups. The comparison graph shows that the City was better than its regional (Mid West) peers, but less advanced or similar to its LGA Class (Rural Medium).

City of Greater Geraldton - Maturity Assessment for 2015

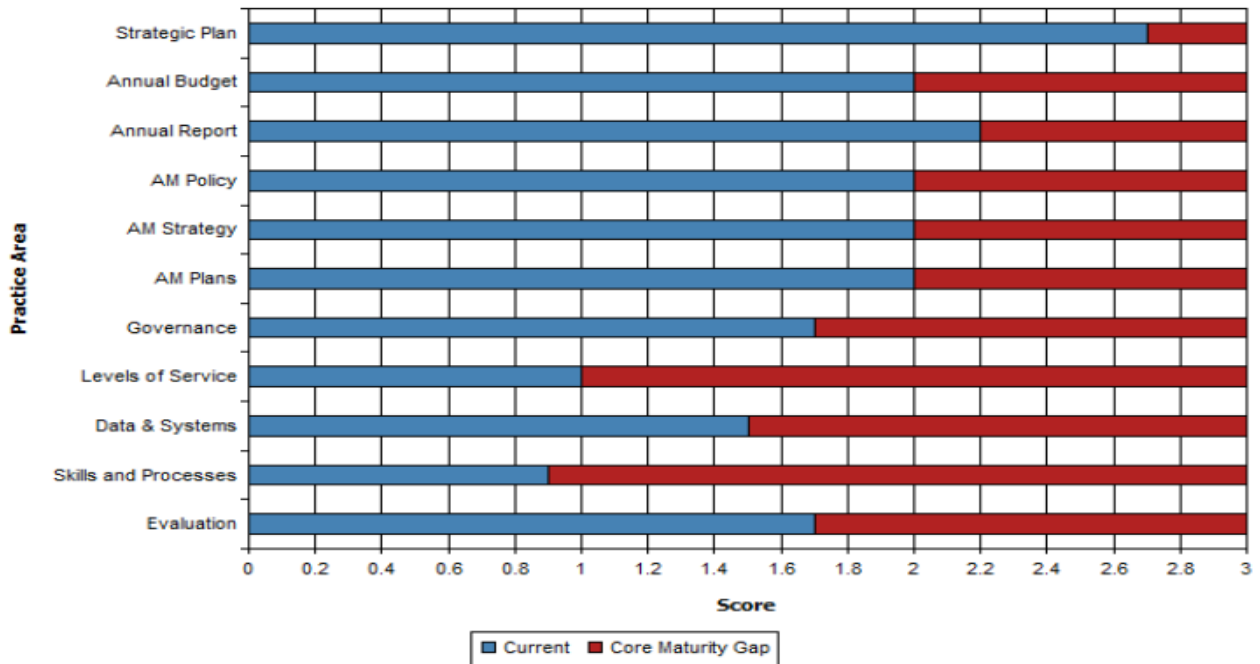


Figure 14: NAMAF Maturity Assessment

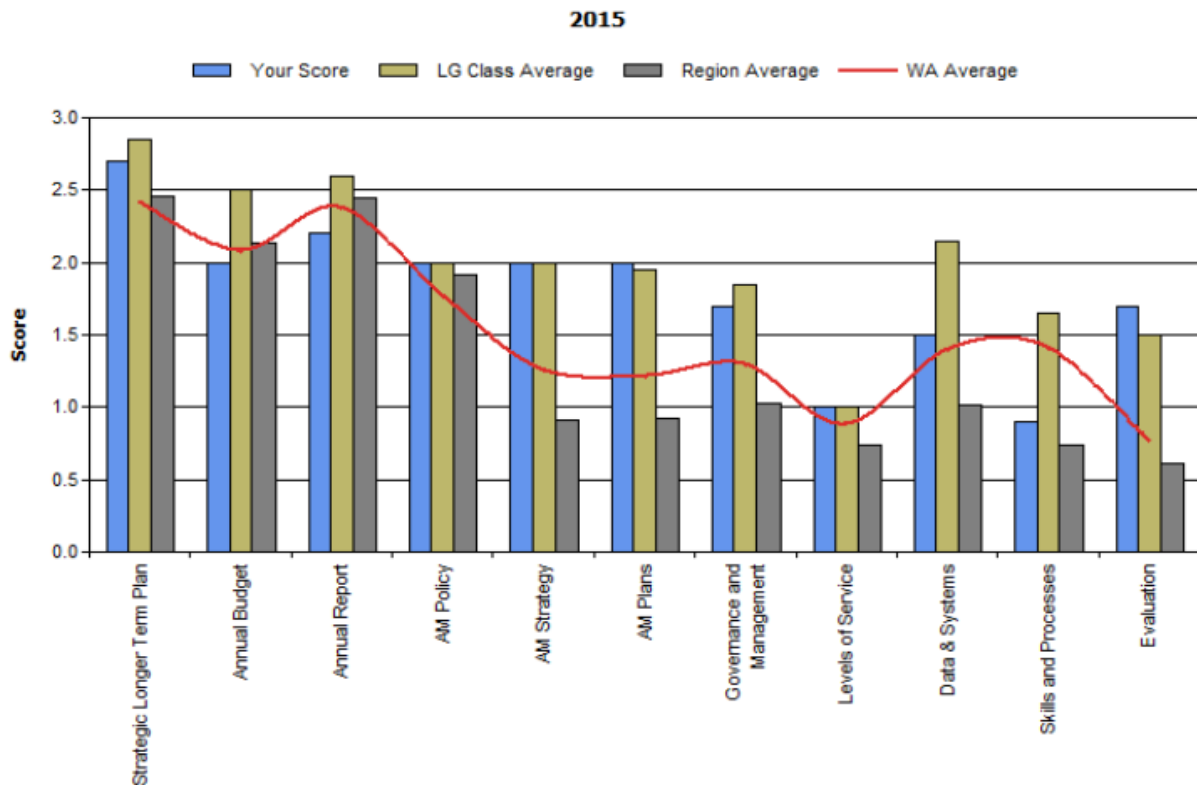


Figure 15: NAMAF Comparison Graph



5.9 Asset Condition Summary

As previously mentioned, the City does not have a consolidated condition data. This information should become available when the asset class AMPs are completed.

A summary of the availability of condition assessments is included in section 5.5 (Table 19). An improvement action has been included in section 7.2 to complete and document condition assessments for all assets in Assetic.

5.10 Renewals Plan

The current renewals plans are based on either asset age or condition based assessments. For age based renewals, the useful life and installation or purchase date are used to predict the next replacement of the assets. For condition based assessments used for Roads, Paths and Buildings

As the asset data is incomplete for Sports, Leisure and Recreation, Coastal and Natural areas, Waste Disposal and Sewerage, a renewals forecast has not been possible to calculate in the lifecycle cost model. The renewals data in section 6 was based on the information in the Long Term Financial Plan. Asset custodians have prepared three year renewal plan as a minimum based on condition assessments, age of asset and remaining useful life.

5.11 Asset disposals

There were no assets identified for disposal in the current AMPs or during the discussions with the asset stakeholders.

In the past, asset rationalisation of Parks and Reserves has occurred based on consultation with the residents and development of the levels of service hierarchy. The process was used to reduce the number of poor quality playgrounds and improve the quality of the remaining playgrounds.

6. Financial Plan

6.1 Introduction

This section of the SAMP provides a summary of the financial plan for the asset classes. The information was drawn from the Financial Asset Registers, Asset Management Plans, Capital Investment and Renewals Plans and stakeholder inputs.

6.1.1 Long Term Financial Plan

The Long Term Financial Plan (LTFP) 2019-2029 provides a ten year projection of revenues and expenditures. The LTFP draws information from the AMPs to produce a future renewals forecast that identifies a shortfall between the predicted expenditures and the available budget as shown in Figure 16:

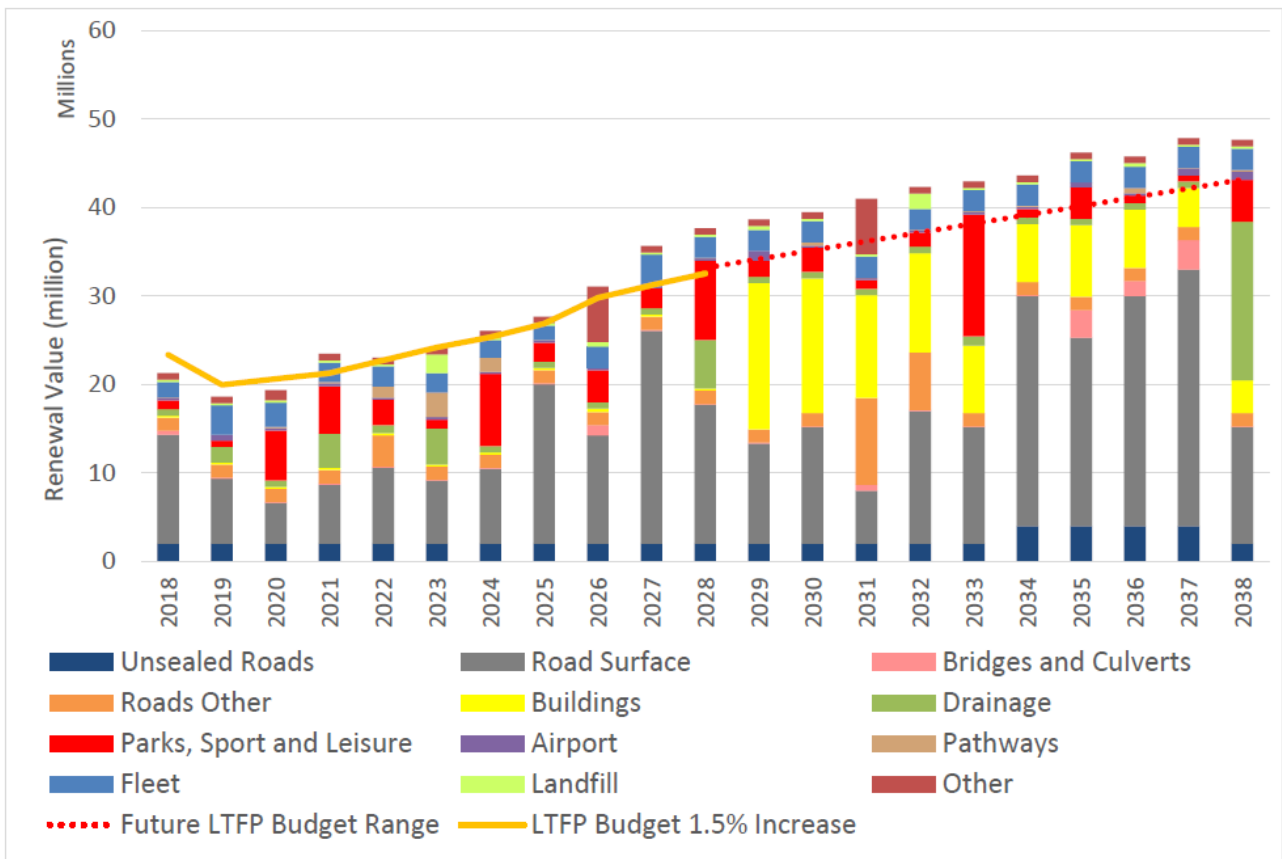


Figure 16: LTFP Renewals Forecasts

The LTFP also highlights that the updates of the AMPs will contribute to improving the level of confidence in the renewals projections. The renewal spend is based on the renewal demand profile as shown in the above graph which is provided by each of the asset custodians. The current renewals projections for most asset classes do not align with the projections in the AMPs. The updating of the AMPs, and creation of new AMPs, is included as an improvement action in section 7.2. Once completed and the LTFP and AMPs are aligned, in the data in the lifecycle cost model or that generated by Assetic Predictor based on condition assessment projections should provide far better levels of confidence in the renewals predictions.

The LTFP provides guidance on the financial management strategy for the City including:

- Contraction to debt service levels in the short to medium term delivering added capacity to borrow in the longer term when required
- The City's future revenues from rates will be limited to modest increases
- The City will continue to use Asset Renewals Sinking Funds to manage renewals expenditure spikes

6.1.2 Annual Budget

The Annual Budget approved by Council to the forthcoming financial year and reports on the actual versus budget revenues and expenditures for the previous financial year. The Annual Budget document also includes the assumptions used in preparing the financial analysis and provides a list of the approved projects for the year.

The asset management plans, through the LTFP are used to set the budget within the affordability limits of the projected revenues.

6.1.3 Lifecycle cost model

The lifecycle cost model is currently prepared as a discounted cash flow spreadsheet using MS Excel. In future, the renewals model should be migrated to Assetic software and when the data and information is fully loaded, the "Predictor" module will generate maintenance and renewals forecasts. Population of the data fields needed by Assetic Predictor has been included as an improvement action in section 7.2.

The current lifecycle cost model uses an average annual inflation rate of 2.2 percent to escalate costs into the future and a discount rate of 4.5 percent based on the average Treasury borrowing interest rate. The model has the capacity to adjust asset replacement rates based on the valuation dates and can be reset to each financial year.

6.2 Past Expenditure

The past and combined expenditure for all assets is denoted below (3 year overview):

	FY18/19	FY17/18	FY16/17
Maintenance	\$13,662,191	\$13,165,718	\$14,087,002
Renewals and New Works	\$57,749,887	\$35,570,309	\$27,914,637
Total	\$71,412,078	\$48,736,027	\$42,001,639

6.3 Forecast Expenditures

The following section provides a summary of the forecast expenditures in the lifecycle cost model from the information and data available at the time this SAMP was prepared. Additional information will be added as the AMPs are updated. There were no operational costs reported in the AMPs or by the asset management stakeholders.

6.3.1 Maintenance

The following table and graph provide a summary of reactive and planned maintenance included in the lifecycle cost model. Maintenance expenditure forecasts give consideration within some of the asset classes of

levelling out of maintenance costs due to the increase funding being applied to renewal and replacement programs. As additional information becomes available, the SAMP will be updated.

Table 25: Maintenance Summary by Asset Class

	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24
Airport	\$219,384	\$220,821	\$224,667	\$229,684	\$234,816
Buildings	\$909,942	\$915,490	\$931,223	\$951,746	\$972,727
Drainage	\$1,050,000	\$1,071,000	\$1,092,420	\$1,114,268	\$1,136,554
Fleet, Plant & Equipment	\$1,116,132	\$1,116,132	\$1,116,132	\$1,116,132	\$1,116,132
Lighting	\$97,000	\$97,000	\$98,455	\$100,867	\$103,338
Parks & Reserves	\$4,583,169	\$4,674,832	\$4,768,329	\$4,863,696	\$4,960,970
Sport & Leisure	\$1,046,733	\$1,067,668	\$1,089,021	\$1,110,801	\$1,133,017
Paths	\$494,937	\$500,949	\$510,684	\$523,281	\$536,190
Transport	\$3,823,500	\$3,823,500	\$3,823,500	\$3,823,500	\$3,823,500
Meru Waste Facility	\$61,464	\$62,506	\$63,715	\$64,998	\$66,308
Mullewa Sewerage	\$12,055	\$12,081	\$12,280	\$12,589	\$12,907
Mullewa Waste Disposal	\$4,000	\$4,080	\$4,162	\$4,245	\$4,330
Coastal & Natural Areas	\$336,400	\$343,810	\$355,341	\$367,648	\$380,475
Mullewa Caravan Park and Cemetery	\$33,225	\$33,639	\$34,291	\$35,026	\$35,777
Total	\$13,787,941	\$13,943,508	\$14,124,220	\$14,318,481	\$14,517,040

Maintenance

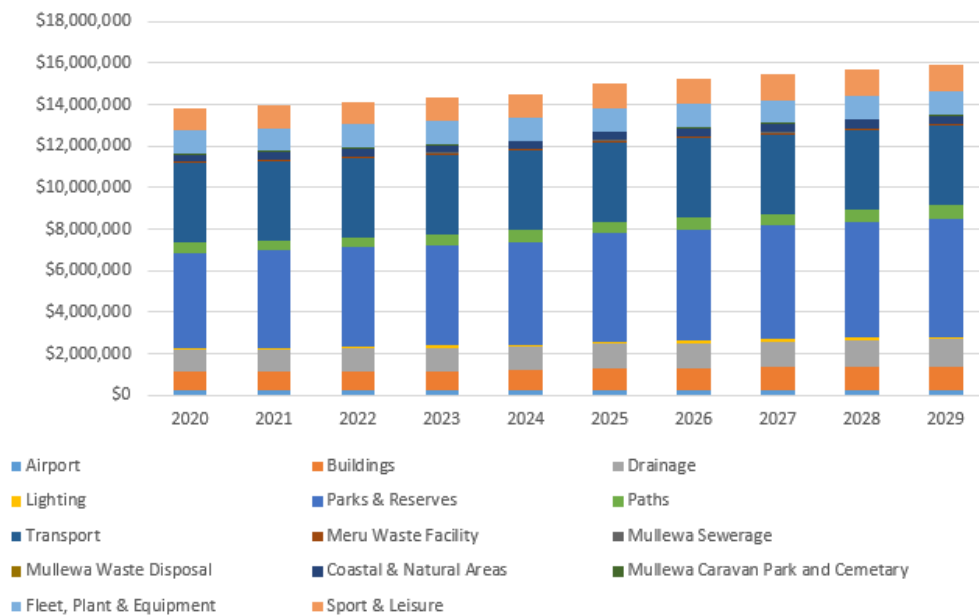


Figure 17: Maintenance Forecasts

6.3.2 Asset Renewals

The proposed renewals are shown in Table 26 and Figure 18. The renewals forecasts have been prepared from the information in the 2019-20 Capita Program Report, asset class Asset Management Plans (AMP) where available and renewals schedules provided by each asset class manager. In some cases, the information is not yet available or is out of date and improvement actions are provided in section 7.2 to address the updating of out of date AMPs and missing renewals forecasts.

Table 26: Renewals Forecasts by Asset Class

	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24
Airport	\$327,000	\$42,641	\$208,273	\$0	\$40,515
Buildings	\$1,038,000	\$567,115	\$250,925	\$265,100	\$274,580
Drainage	\$1,265,600	\$310,000	\$2,940,125	\$942,945	\$2,660,730
Fleet, Plant & Equipment	\$2,033,000	\$4,482,000	\$3,587,500	\$2,135,000	\$3,059,500
Lighting	\$655,000	\$250,000	\$250,000	\$250,000	\$250,000
Paths	\$694,000	\$1,500,820	\$1,857,710	\$1,311,680	\$2,433,635
Parks & Reserves	\$2,335,500	\$884,970	\$2,794,055	\$1,869,585	\$448,315
Sport, Recreation & Leisure	\$732,100	\$2,500,000	\$0	\$500,000	\$0
Transport	\$9,921,000	\$8,755,373	\$8,025,076	\$14,003,804	\$11,557,885
Meru & Mullewa Waste Facility	\$170,000	\$312,715	\$237,980	\$263,100	\$2,259,942
Mullewa Sewerage	\$0	\$11,208	\$0	\$0	\$9,400
Coastal & Natural Areas	\$599,000	\$400,000	\$400,000	\$400,000	\$400,000
Total	\$19,770,200	\$20,016,842	\$20,551,644	\$21,941,214	\$23,394,502

The capital renewals forecasts shows that 51.6 percent of the average annual expenditures are for roads. The next largest asset class are Fleet, Plant and Equipment (12.6 percent) and Parks and Reserves (12.0 percent).

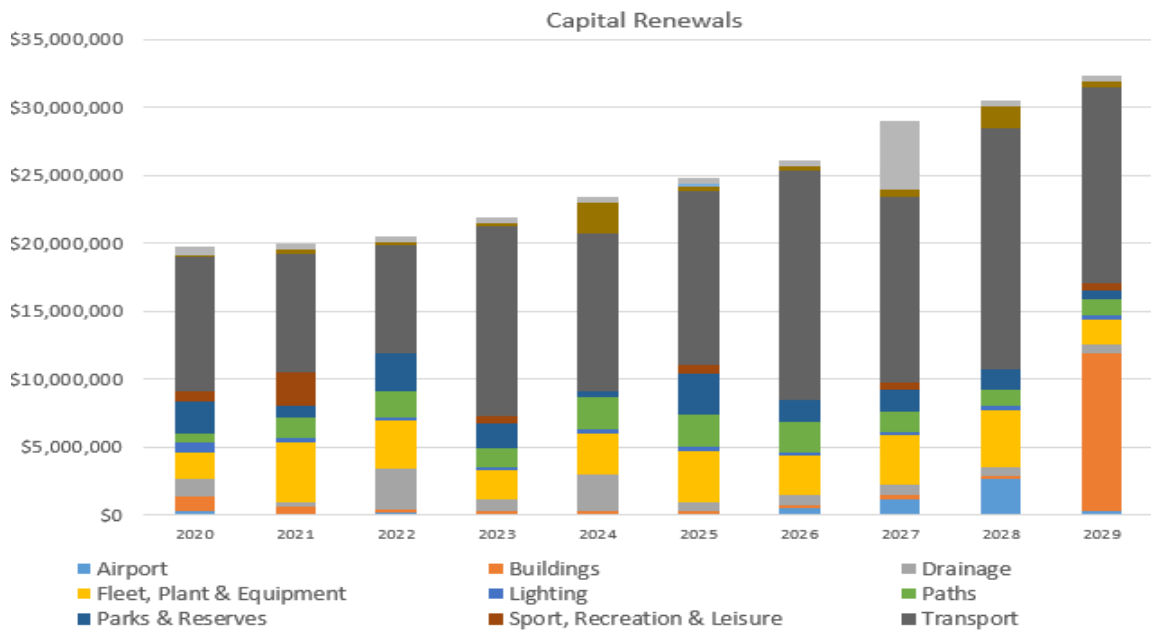


Figure 18: Capital Renewals Forecast

6.3.3 New Works

The new works projects have been identified in section 3.3 of the Capital Program Report and the asset class AMPs. The projected expenditure forecasts are included in section 6.3.1, and a summary provided in Table 27 and Figure 19.

Table 27: New Works Forecast

	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24
Airport	\$0	\$430,000	\$0	\$0	\$0
Buildings	\$446,000	\$1,177,000	\$446,000	\$750,000	\$300,000
Drainage	\$0	\$518,595	\$22,000	\$650,000	\$600,000
Fleet, Plant & Equipment	\$187,200	\$365,000	\$60,400	\$0	\$0
Lighting	\$0	\$0	\$0	\$0	\$0
Paths	\$691,000	\$1,311,743	\$602,597	\$500,000	\$1,400,000
Parks & Reserves	\$1,442,950	\$846,113	\$0	\$650,000	\$600,000
Sport, Recreation & Leisure	\$19,000	\$0	\$2,591,700	\$0	\$0
Transport	\$1,730,000	\$931,000	\$576,000	\$2,250,000	\$2,500,000
Meru & Mullewa Waste Facility	\$0	\$160,000	\$500,000	\$0	\$0
Mullewa Sewerage	\$0	\$0	\$0	\$0	\$0
Coastal & Natural Areas	\$520,000	\$500,000	\$0	\$0	\$0
Totals	\$5,036,150	\$6,239,451	\$4,798,697	\$4,800,000	\$5,400,000

The new works capital expenditure graph per the current LTFP shows a spike in 2027 which is an indicator related to an improved position in the City’s borrowing and funding capacity as a result of the current strategy to contract borrowings in the short to medium term, and at this time is not related to any designated capital works or asset. The expenditure spread between the asset classes is primarily for roads (transport 24.6 percent), buildings (24.1 percent), paths (20.8 percent and parks and reserves (15.6 percent).

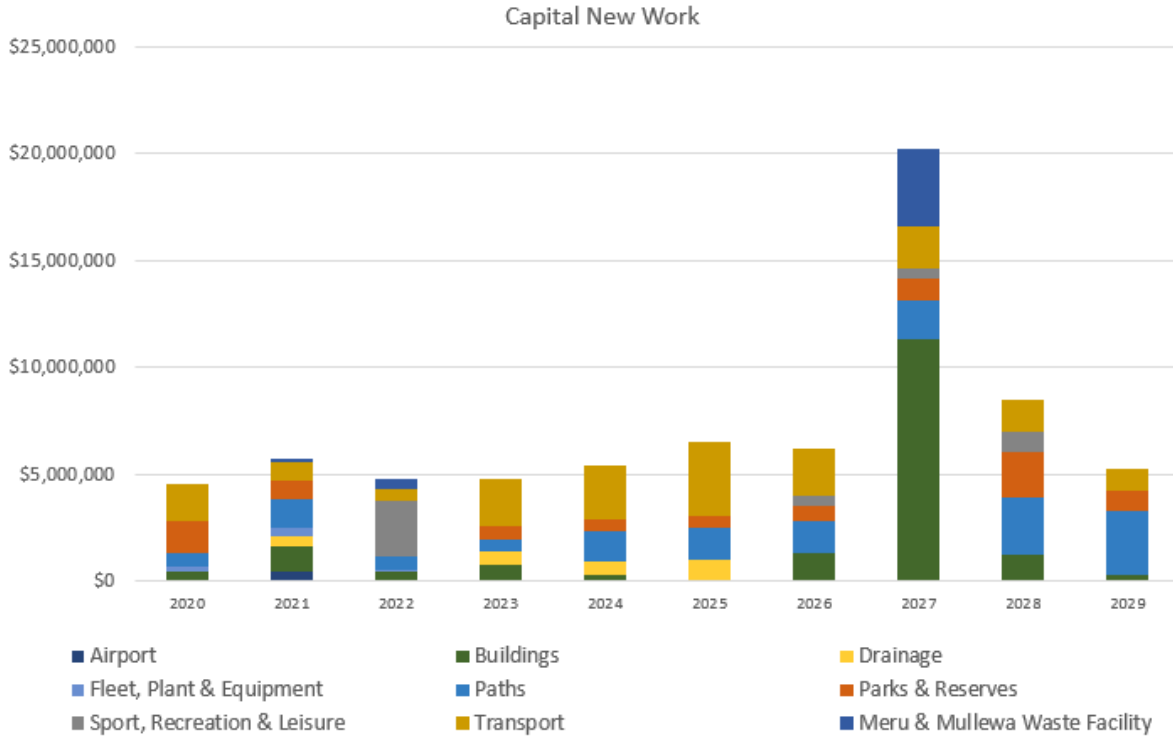


Figure 19: Capital New Work Forecast

6.4 Expenditure summary

The graph in Figure 20 and is a summary of the CAPEX and OPEX expenditures forecast in the lifecycle cost model for all asset classes.

Table 28: CAPEX and OPEX Summary

	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24
Maintenance	\$13,787,941	\$14,042,301	\$14,323,781	\$14,620,826	\$14,924,225
Renewals and New Works	\$29,842,500	\$32,495,744	\$25,350,341	\$26,741,214	\$28,794,502
Total	\$43,630,441	\$46,538,045	\$14,323,781	\$41,362,040	\$43,718,727
	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29
Maintenance	\$15,252,558	\$15,588,114	\$15,931,052	\$16,281,536	\$16,639,729
Renewals and New Works	\$31,328,124	\$32,284,275	\$49,195,733	\$38,981,901	\$37,594,375
Total	\$46,580,682	\$47,872,389	\$65,126,785	\$55,263,437	\$54,234,104

Capital and Maintenance Expenditure

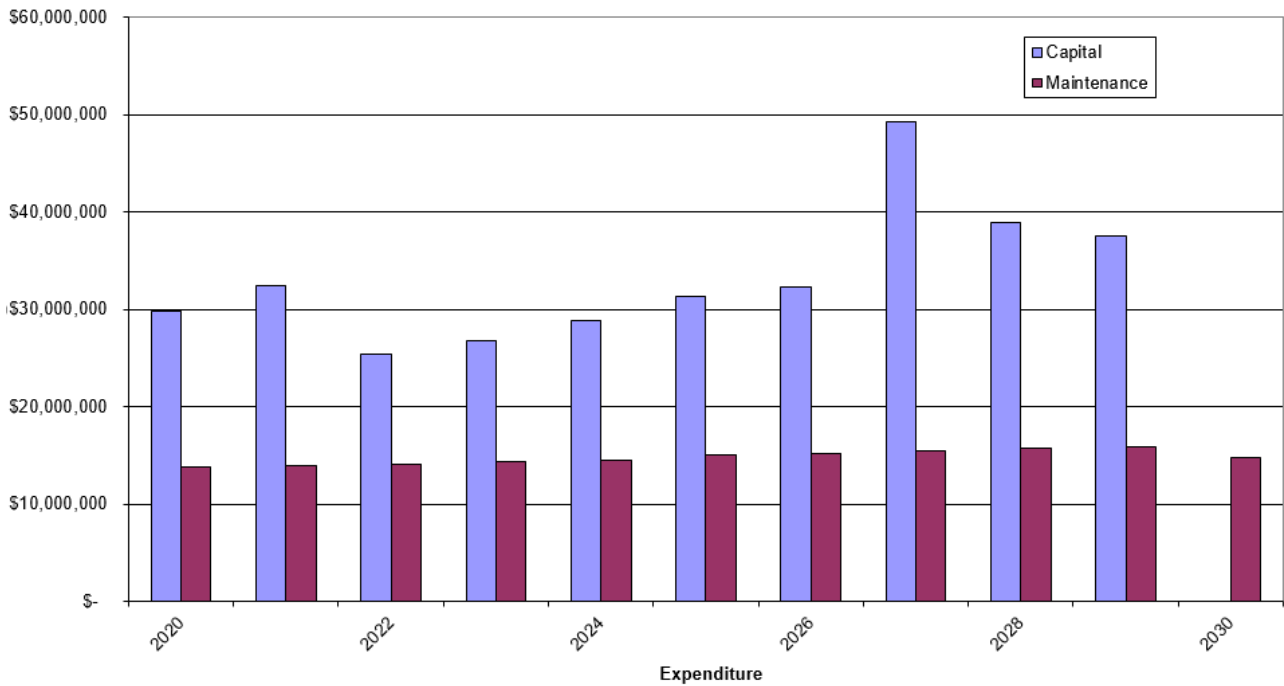


Figure 20: CAPEX and OPEX Expenditure Summary

6.5 Asset Sustainability Ratios

The following information on the sustainability asset ratios was extracted from the LTFP:

6.5.1 Asset Sustainability Ratio

This is an indicator of the extent to which assets managed by a local government are being replaced as they reach the end of their useful lives. This is measured as:

$$\frac{\text{Capital Renewal Expenditure}}{\text{Depreciation Expense}}$$

Target – between 90% to 110%

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Forecast	80.85%	81.46%	81.85%	85.27%	87.04%	88.35%	89.41%	96.03%	96.13%	97.16%

Consistent with the City's fiscal approach to move from both a deficit to surplus position over a financially sustainable period plus provide the required level of liquidity to fund renewal works to a greater and sustainable level this ratio continues to trend upward towards the target benchmark. This ratio impacted by annual fair value adjustments.

As indicated by the notes above, the asset sustainability ratio is related to the fair valuation of the assets. During the preparation of this SAMP, differences between the replacement values of the assets in the FAR and the AMPs indicate that the two data sets are not aligned and the value of the assets may be different from that used to calculate the ratio in the LTFP. The review of the replacement values of the assets will need to be completed during the updating of the existing AMPs and creation of new AMPs.

6.5.2 Asset Consumption Ratio

This ratio highlights the aged condition of a local government's physical assets. This is measured by:

$$\frac{\text{Depreciated Replacement Cost of Assets (Written-Down Value)}}{\text{Current Replacement Cost}}$$

Target – 60% or greater

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Forecast	74.84%	74.49%	74.34%	75.53%	75.66%	76.97%	77.14%	78.88%	79.25%	81.12%

This ratio measures the extent to which depreciable assets have been consumed by comparing their written down value to their replacement cost. While this target measure meets the advance standard, there is still work to be completed at a componentised level re aged condition and useful life on some asset categories that would completely validate these percentages.

The asset consumption ratio is an indicator of the average asset health or condition. The ratio of 75 percent indicated that the assets are in good to fair condition and therefore approximately 50 percent through their useful lives. The stakeholders and AMPs indicate that this observation is generally accurate.

6.5.3 Asset Renewal Funding Ratio

This ratio indicates whether the local government has the financial capacity to fund asset renewal at continued existing service levels. This is measured as:

$$\frac{\text{Net present Value of Planned Renewal Expenditure Over 10yrs}}{\text{Net Present Value of Asset Management Plan Projections Over 10yrs}}$$

Standard Target – between 75% and 95%

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Forecast	95.89%									

The City's ratio is above the target range over the current ten-year period per a strategy that underpins the LTFP to increase renewal expenditure each year to levels commensurate to asset demand profile requirements.

As the AMPs have not been prepared for all asset classes, the asset renewals funding ratio may be overstated.

6.6 Affordability

As mentioned previously, the City's revenue is constrained to a modest 1.5 percent per annum growth. The asset renewals forecast exceeds the revenues budgets over the next 20 years (see Figure 16). The renewals requirements will need to be reduced or deferred to manage the expenditures within the available revenues.

6.7 Funding and Expenditure Management Plan

As previously mentioned, the funding availability is constrained by limitations on rate increases and borrowings. The City is moving towards a surplus budget over the next ten years and is going to limit expenditure of renewals and new works to the approved budget detailed in the LTFP.

The City's asset managers will need to manage their renewals programs through deferment of non essential and lower priority projects. Similarly, new works will be limited to those projects that are needed for the City to continue providing services, such as the development of the Meru Waste Disposal Facility.

7. Improvement Plan

7.1 Monitoring and Review

The SAMP is to be reviewed and updated whenever the Asset Management Policy is revised or at three yearly intervals. The review will be completed by the Asset Manager, reviewed by the Director Infrastructure and approved by the Council.

7.2 Improvement Plan

The development of the SAMP identified that there are gaps in information and data that will need to be filled for the next revision of the document. The asset management improvement plan summarised in Table 29 are based on the improvement recommendations in this SAMP and the outcomes from the National Asset Management Assessment Framework Report. Asset class specific actions are included in each of the AMPs.

Table 29 – Asset Management Improvement Plan

Item	Description	Responsibility	Due Date
1.	Appoint an Asset Manager	Director Infrastructure Services	30 September 2019
2.	Update the Asset Management Policy	Director Infrastructure Services	30 December 2020
3.	Update the SAMP from the Participatory Budget community consultation process (subject to Council endorsement)	Asset Manager	TBA - subject to Council endorsement
4.	Finalise the following draft AMPs <ul style="list-style-type: none"> • Roads • Paths • Drainage 	Director Infrastructure Services	30 September 2020
5.	Update the following AMPs: <ul style="list-style-type: none"> • Buildings • Parks & Reserves 	Asset Manager	30 June 2020
6.	Develop the following AMPs: <ul style="list-style-type: none"> • Bridges • Coastal and Natural Areas • Lighting and Electrical • Sports, Recreation and Leisure • Sewerage Treatment • Waste Disposal 	Asset Manager	30 June 2020
7.	Develop and implement training programs in asset management for staff and Councillors	Director Corporate and Commercial Services	30 June 2020
8.	Load Assetic Predictor with the condition, useful life, replacement values and decay curves needed to generate renewals and maintenance forecasts	Asset Manager	30 June 2020
9.	Align the renewals and maintenance forecasts generated from Assetic Predictor with the LTFP.	Asset Manager	30 June 2020



Item	Description	Responsibility	Due Date
10.	Complete all missing condition assessments, load the assessments into Assetic and document the current condition of the assets in the AMPs	Asset Custodians	30 June 2021

The improvement actions will need to be confirmed when an Asset Manager is appointed.

Appendices

Appendix A - Acronyms and Definitions

Acronyms

Acronym	Description
AM	Asset Management
AMP	Asset Management Plan
AMS	Asset Management System
AMWG	Asset Management Working Group
CAPEX	Capital Expenditure
CBD	Central Business District
CEO	Chief Executive Officer
CGG	City of Greater Geraldton
DLGSC	Department of Local Government, Sports and Cultural Industries
FAR	Financial Asset Register
FOGO	Food Organics and Green Organics
GIS	Graphical Information System
IIMM	International Infrastructure Management Manual
IPWEA	Institute of Public Works Engineers Australasia
ISO	International Standards Organisation
LCCM	Lifecycle Cost Model
LED	Light Emitting Diode
LGA	Local Government Agency
LoS	Levels of Service
LTFP	Long Term Financial Plan
MOU	Memoranda of Understanding
NAMAF	National Asset Management Framework
OPEX	Operations and Maintenance Expenditure

Acronym	Description
RUL	Remaining Useful Life
SAMP	Strategic Asset Management Plan
SES	State Emergency Services

Definitions

Term	Description
Annual service cost	An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.
Asset class	Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).
Asset condition assessment	The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action
Asset management	The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.
Assets	Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12). Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 months.
Average annual asset consumption	The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class
Capital expansion expenditure	Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretionary expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.
Capital expenditure	Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.
Capital funding	Funding to pay for capital expenditure.
Capital grants	Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.
Capital investment expenditure	See capital expenditure definition.

Term	Description
Capital new expenditure	Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.
Capital renewal expenditure	Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.
Capital upgrade expenditure	Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, eg. Widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.
Carrying amount	The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.
Class of assets	See asset class definition
Component	An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.
Cost of an asset	The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.
Current Replacement Cost	The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.
Current replacement cost "As New"	The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.
Cyclic Maintenance	Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.
Depreciable amount	The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)
Depreciated replacement cost	The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.
Depreciation / amortisation	The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Term	Description
Economic life	See useful life definition.
Expenditure	The spending of money on goods and services. Expenditure includes recurrent and capital.
Fair value	The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.
Heritage asset	An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.
Impairment Loss	The amount by which the carrying amount of an asset exceeds its recoverable amount.
Infrastructure assets	Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no market value.
Investment property	Property held to earn rentals or for capital appreciation or both, rather than for: (a) use in the production or supply of goods or services or for administrative purposes; or (b) sale in the ordinary course of business (AASB 140.5).
Level of service	The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).
Life Cycle Cost	The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year
Life Cycle Expenditure	The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Expenditure to give an initial indicator of life cycle sustainability.
Loans / borrowings	Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).
Maintenance and renewal gap	Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).
Maintenance and renewal sustainability index	Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).
Maintenance expenditure	Recurrent expenditure which is periodically or regularly required to keep the asset operational and provide the required level of service. Regular ongoing work necessary to keep the asset operational
Materiality	An item is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on

Term	Description
	the size and nature of the omission or misstatement judged in the surrounding circumstances.
Modern equivalent asset	A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.
Non-revenue generating investments	Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council.
Operating expenditure	Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.
Pavement management system	A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.
Planned Maintenance	Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
Rate of annual asset consumption	A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.
Rate of annual asset renewal	A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).
Rate of annual asset upgrade	A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).
Reactive maintenance	Unplanned repair work that carried out in response to service requests and management/supervisory directions.
Recoverable amount	The higher of an asset's fair value, less costs to sell and its value in use.
Recurrent expenditure	Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.
Recurrent funding	Funding to pay for recurrent expenditure.
Rehabilitation	See capital renewal expenditure definition above.
Remaining life	The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.
Renewal	See capital renewal expenditure definition above. Restores, rehabilitates existing asset to its original capacity. This is a capital expense.
Residual value	The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.
Revenue generating investments	Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs.
Risk management	The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Term	Description
Section or segment	A self-contained part or piece of an infrastructure asset.
Service potential	The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.
Service potential remaining	A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services.
Strategic Management Plan	Documents Council objectives for a specified period (3-5, 10 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.
Sub-component	Smaller individual parts that make up a component part.
Useful life	Either: (a) the period over which an asset is expected to be available for use by an entity, or (b) the number of production or similar units expected to be obtained from the asset by the entity. It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.
Value in Use	The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows, where if deprived of the asset its future economic benefits would be replaced.

Appendix B – References





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