

Infrastructure Asset Management Plans 2019



















Paths

Public Art





Our Asset Worth

Based on the following Asset Classes, the City of Bunbury has an infrastructure network with a current replacement cost of \$676,890,021.

\$676,890,021

Assets are cantured in the following AMPs

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1. Bridges	\$ 8,981,319
2. Buildings	\$148,229,652
3. Heritage	\$ 29,965,845
4. Marine	\$ 27,302,128
5. Open Space	\$ 21,498,228
6. Other	\$ 9,452,925
7. Paths	\$ 65,935,023
8. Public Art	\$ 5,918,391
9. Roads	\$242,260,927
10. Stormwater	\$102,619,637
11. Structures	\$ 14,725,946



Property, Plant & Equipment Assets

As well as the assets covered within the Infrastructure Asset Management Plans, the City also owns and maintains the following:



Furniture & Fittings

\$60,450

e.g. desks, chairs, tables, filing cabinets, benches, cupboards



Equipment

\$3,445,259

e.g. IT - servers, computers, laptops etc, Sporting - gym, athletics, aquatics etc, commercial kitchen, parking machines



Plant & Vehicles

\$4,863,626

e.g. heavy machinery, slashers, mowers, patching truck, waste trucks, City fleet cars



Arts & Culture

\$2,138,019

e.g. art collection (excluding public art), City Band musical instruments



Land

\$115,484,174

e.g. Freehold, Crown Management Order, Unallocated Crown Land

Changes to Financial Reporting

This year the City of Bunbury implemented capitalisation thresholds for assets to align with the amended Local Government Financial Management Regulations 1996—17A and 17AB, which states that assets under \$5,000 at the date of acquisition are no longer capitalised. As these assets no longer form part of our asset register they will not be included in asset renewal modelling and will now need to be repaired or replaced through operating budgets.

Worth Noting

- Financial values are based on data as at January 2019. All figures exclude GST
- Renewal costs are based on replacing existing assets like for like and does not consider any new infrastructure
- Recognise that asset data will constantly change i.e. additions or disposals of assets
- Asset management knowledge will continue to mature and evolve.

Other **City Assets** Page 3

Asset Management Planning

Under section 5.56(1) of the Local Government Act 1995 all local governments are currently required to produce a plan for the future.

The Integrated Strategic Planning Framework provides the basis for improving the practice of strategic planning in local governments. It addresses the minimum requirements to meet the intent of the Act and outlines processes and activities to achieve an integrated strategic plan at the individual government level.

The City of Bunbury have invested significant time collecting and developing our asset information including installation dates, replacement costs, useful lives, construction materials, condition and physical location.

By understanding what we own and maintain and by assessing the criticality and risk of asset failure, the City is able to calculate asset renewal and replacement at the appropriate time.

Projections are based on replacing assets 'like for like' to provide the same level of service and to adhere to current Australian Standards.



The asset management plans and modelling will be the key driver in determining asset replacement projects in the Long Term Financial Plan (City of Bunbury Integrated Financial Plan).



Page 4 Renewals

15 Year Renewals 2019/20 - 2033/34

Asset Group		IFP Renewal Budget	Required Renewal	Shortfall /
		15 years	15 years	Surplus
1	Bridges	\$ 335,000	\$ 289,389	\$ 45,611
2	Buildings *	\$ 20,535,000	\$ 16,487,660	\$4,047,340
3	Marine	\$ 8,827,600	\$ 8,762,550	\$ 65,050
4	Open Space	\$ 12,779,000	\$ 14,088,251	- \$1,309,251
5	Other	\$ 5,036,000	\$ 8,125,234	- \$3,089,234
6	Paths	\$ 7,075,000	\$ 4,441,198	\$2,633,802
7	Roads	\$ 41,853,000	\$ 50,051,445	- \$8,198,445
8	Stormwater	\$ 7,920,000	\$ 8,101,432	-\$ 181,432
9	Structures	\$ 5,419,000	\$ 1,245,022	\$4,173,978
Tota	ıl	\$109,779,600	\$111,592,181	-\$1,812,581

- * Buildings will be reviewed in 2019/20 resulting in significant changes to the asset renewal requirements.
- \$111,592,181 worth of required renewal over the 15 year period.
- This figure includes \$9,762,864 worth of backlog assets that fell due for replacement prior to 2019 but have not yet been replaced
- Due to the historical significance of Heritage Buildings they are not programmed for replacement
- As Public Art assets are unique they cannot be replaced like for like
- Comparing to the adopted Integrated Financial Plan (28th May, 2019)
 renewal is underfunded by \$1,812,581
- Options of addressing the underfunding of assets could include;
 - 1. Increase income i.e. more external funding opportunities
 - 2. Decrease number of assets e.g. with the same budget we would be able to spend more on the remaining assets
 - 3. Decrease level of service e.g. mowing parks every three weeks instead of fortnightly.

Planning for the Future

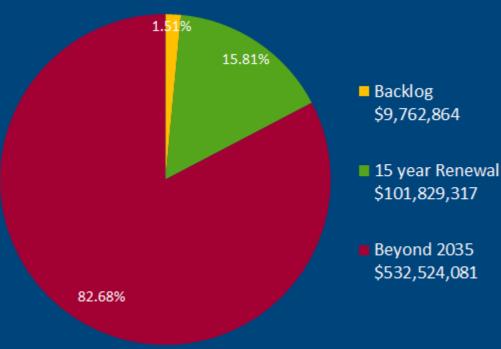
- \$532,524,081 (82.68%) of City assets do not fall due for renewal until after 2035
- Whilst the City is overfunded by (\$1,812,581) for asset renewals over the 15 year period, it is imperative that City also understands future asset replacement costs
- This half a billion dollars required, only allows for the first renewal of existing assets and does not include future replacement or new assets.



As significant assets have long life, we must begin planning now!!

Renewal Period Breakdown

Excludes Heritage & Public Art





Page 5 Beyond 2035



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Future Impact on Assets

As the population grows and the residential density increases so does the demand on the City's infrastructure. As the City continues to promote itself as a destination to live, invest and visit we must be prepared for the impact that this will have on our asset network.

Locations such as Koombana Foreshore will continue to grow in popularity therefore the need to provide additional parking, toilets, shade and evolving playspace will continue to grow also.

The City must continue to be innovative to meet the current and future service levels in a cost effective manner whilst trying to keep up with peoples growing expectations.

Climate Impacts on Assets

As the environment we live in continues to change the City of Bunbury also needs to acclimatise and plan accordingly.

- Weather patterns: seasons continue to shift with more intensive rainfall events putting pressure on the existing stormwater network
- Water availability: less annual rainfall means longer watering periods whilst underground water supplies diminish i.e. reduction of bore water allocation
- Sea levels: as sea water levels continue to rise the need to build adequate marine infrastructure increases

Actions we are taking to mitigate climatic impact;

- 1. Shade sails over playground equipment and beach infrastructure
- 2. Designing and installing adequate stormwater infrastructure that aims to protect the built environment from flooding and minimise public risk
- 3. Energy harvesting by installing solar panels to buildings and installing solar powered lighting using LED luminaire fixtures
- 4. Planting over 650 trees during the 2018/19 financial year
- 5. Design and construction of new buildings and facilities which adhere to current flood levels requirements
- 6. Preparation of reports/strategies that aim to provide adequate coastal hazard risk management and adaptation planning





Page 7 Evaluation

Ratio

- As per the Asset Management Guidelines for Western Australian Governments, asset management programs should include evaluation mechanisms to measure their effectiveness against the targets and outcomes set out in Asset Management Strategies and Plans.
- Ratios are calculated on the figures over the 15 year period (2019/20 to 2033/34).
- As per the local Government (Financial Management) Regulations 1996—Regulation 50 financial ratios are to be included in the Annual Financial Report.

Asset Consumption Ratio (ACR)

Measures the extent to which depreciated assets have been consumed by comparing their written down value to their replacement cost.

replacement cost.	
Target	50% - 70%
Replacement Rate	56.54%
Measurement Note	< 50% ratio indicates a rapid deterioration of the asset base.
	60% ratio indicates an adequate useable level of service across asset categories.
	> 75% ratio indicates a possible over investing in the asset base.
Therefore	This ratio indicates that as a whole the City is depreciating assets at a reasonable rate. This means that we are not eroding asset life to quickly or too slowly.

depreciated replacement cost of assets current replacement cost of depreciable assets

Asset Sustainability Ratio (ASR)

Measures the extent to which assets are being renewed / replaced compared to the amount consumed (depreciated).

Target	90% - 110%	
Replacement Rate	60.00%	
Measurement Note	< 90% ratio indicates possible under investing in renewal and replacement of assets.	
	>110% indicates possible over investing in renewal and replacement of assets.	
Therefore	The City is currently not replacing assets at the rate that they are depreciating.	
	Whilst depreciation can be a good rule of thumb on what should be spent on replacement it can be distorted by long life assets.	
	For example a stormwater pipe with a 100 year useful life depreciates evenly over the 100 years whereas our renewal figures are based on the 15 year period (2019/20—2033/34).	

capital renewal and replacement expenditure depreciation expense

Asset Renewal Funding Ratio (ARFR)

This ratio provides an indication of the City's financial capacity to fund required asset renewals.

Target	95% - 105%
Replacement Rate	98.38%
Measurement Note	> 95% ratio indicates that the IFP makes adequate provisions to maintain existing levels of service and renew or replace assets.
	< 75% ratio indicates possible inadequate provision for future renewal or replacement of the asset base.
Therefore	Whilst the asset renewal funding ratio reflects adequate provision for replacement (with only a shortfall of \$1,812,581) over the 15 year period, it must be noted that \$532,524,080 (82.68%) of City assets do not fall due for renewal until after 2035. The City can not reduce its current investment in asset renewal below the existing level of funding.

net present value of planned capital renewal over 15 years net present value of required expenditure over 15 years

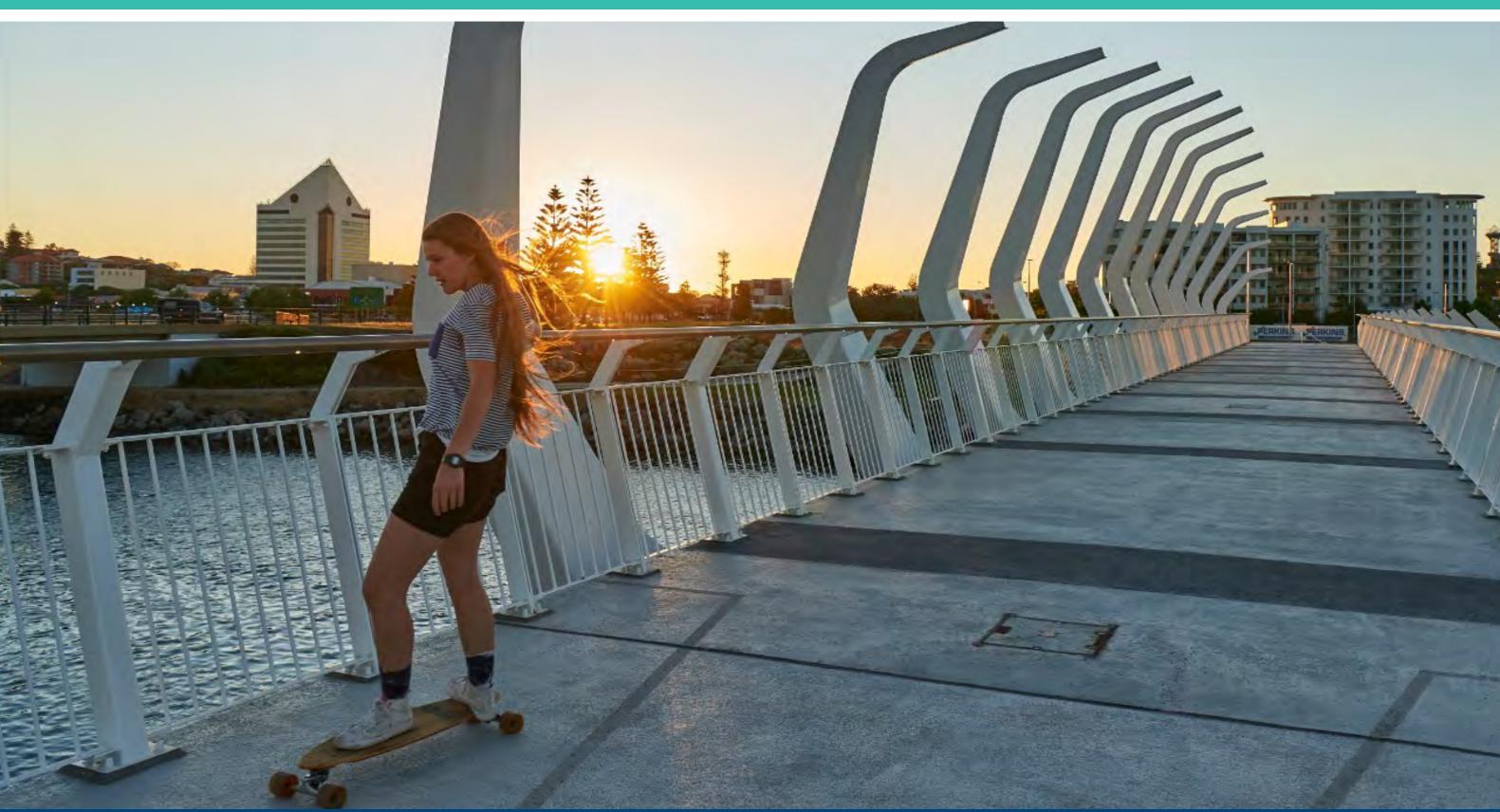




- The above graph illustrates when the City of Bunbury installed / obtained current assets. Given that a majority of assets have a long life they do not fall due for replacement within the current 15 year period of the Long Term Financial Plan
- Whilst the current 15 year renewal period indicates that we need to spend \$111,592,181 on replacements the subsequent 15 year period (2035—2049) shows that we will need to spend nearly double (\$211,343,274) on asset replacement
- Future period expenditure is very conservative (renewal only of known existing assets, replaced like for like in todays dollars—no inflation) and yet the modelling demonstrates that the \$111 million investment in the current 15 year period is the lowest required in the next 100 years. This will only continue to increase in the future with the peak period being 2080-2094 with \$285.5 million required to be spent
- The City has an Asset Management and Renewal Reserve with the purpose to provide funding for future asset management / renewal programs and projects. As per the adopted IFP the opening balance as at July 2018 is \$4.6M decreasing to \$1.8M by the end of the renewal period 2019/20—2033/34
- It is strongly recommended that the City start allocating funds into the Reserve to ensure financial capacity for future asset renewal
- New assets and development are not included in the replacement modelling
- As well as the initial cost to purchase and supply assets there are other whole of life costs that must be considered, such as the ongoing maintenance, operating expenditure (e.g. utilities, cleaning, insurance), depreciation and then eventual renewal
- Whilst the city needs to balance the desire for new development and growth, it is imperative to understand the financial implications that comes with providing new facilities or services.



Bridge Asset Management Plan 2019



Snapshot

- Total of 15 individual bridges which comprises of abutments,
 beams, decks and handrails
- Current replacement value of \$8,981,319
- Externally valued in June 2018
- Externally condition rated in May 2015
- Minimal change in condition rating from 2015 to 2018
- High level of confident regarding asset replacement cost and condition
- Bridge infrastructure renewal financial figures are based on 'remaining useful life'
- Remaining useful life uses the estimated life expectancy of the asset before it will need to be replaced. Factors determining remaining useful life include (but not limited to) condition, environment, maintenance and levels of service
- Within the 15 year renewal period 1 beam, 6 decks and
 12 handrails have been identified for replacement with a combined replacement cost of \$289,389
- \$550,200 budgeted for operating and maintenance over the 15 year period
- Financial data and values obtained from AssetFinda reporting system as at January 2019. All figures exclude GST.

Renewal Period

Backlog	\$ 0.00	(0.00%)
• 15 year renewal	\$ 289,389	(3.22%)
• Beyond 2035	\$8,691,930	(96.78%)
Total Current Replacement Cost	\$8,981,319	

Renewal Budget

•	Total Required Renewals (15 years)	\$289,389
•	Total IFP Renewal Budget (15 years)	\$335,000
•	Total Renewal Surplus (15 years)	\$ 45,611

Condition

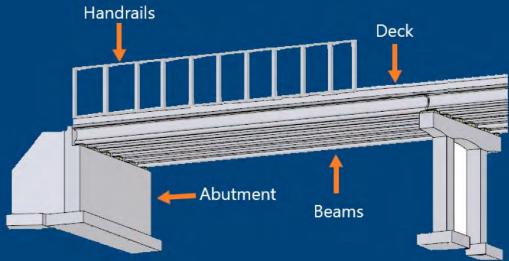
As per condition assessment June 2015 and based on current replacement cost

Excellent	85.48%
• Good	2.38%
• Average	11.68%
• Poor	0.46%

Overview

Components of a Bridge

- Abutment: the elements at the ends of the bridge providing support and acting as a retaining wall to prevent the earth under the approach of the bridge from moving or subsiding
- 2. Beams: the structural component on a bridge that supports loads applied to the axis. A beam typically responds to forces (traffic weight) by bending and flexing
- 3. Deck: the functional area that allows vehicles and pedestrians to cross
- 4. Handrails: a guard rail system used predominately on the side/s of a bridge to prevent vehicles or pedestrians from falling off the edge.

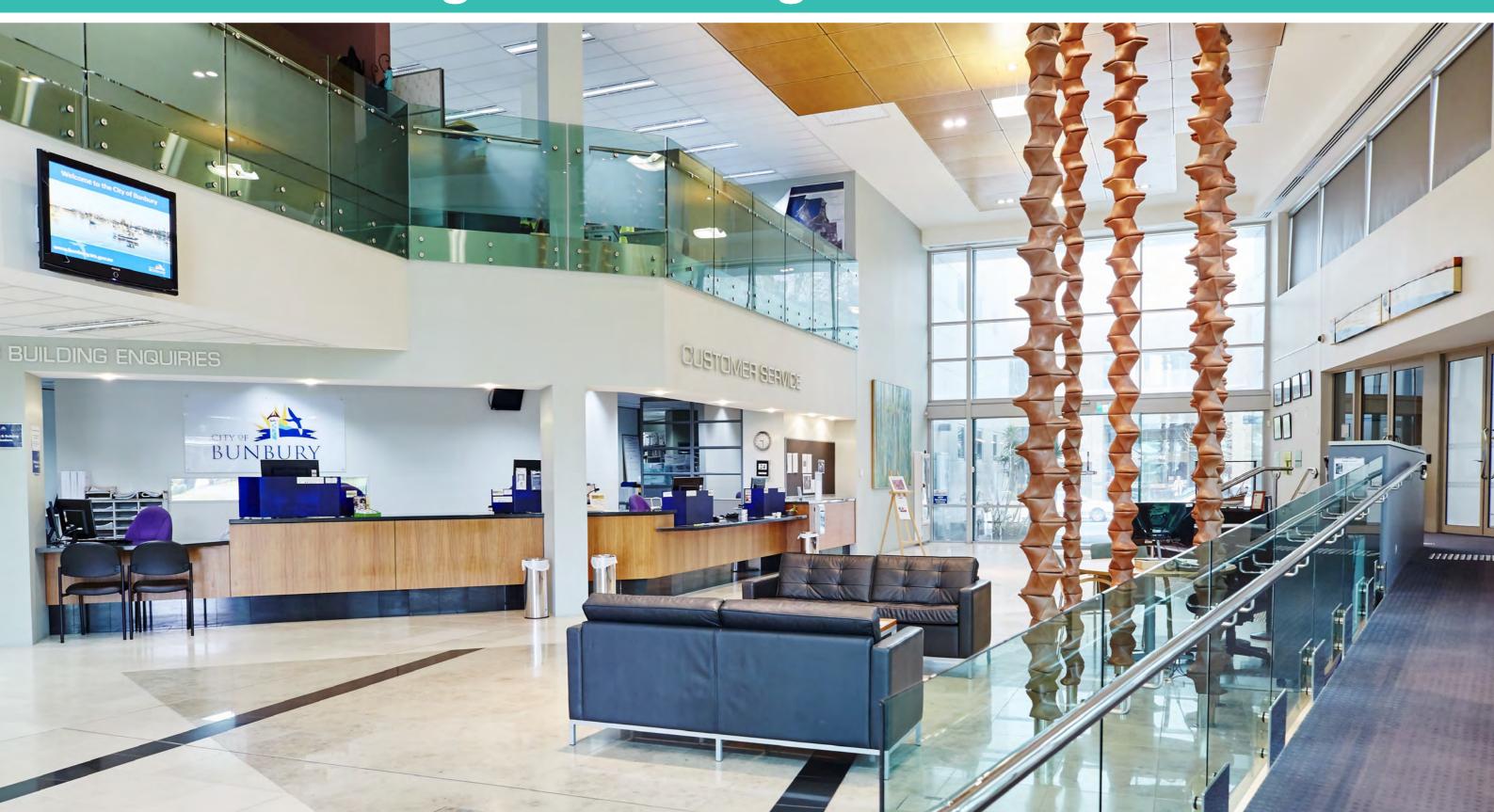








Building Asset Management Plan 2019





Glossary of terms

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Asset Renewal

Replacing or refurbishing an existing asset with an asset of equivalent capacity or performance capability.

Asset Renewal Period

The estimated replacement period of the asset.

Condition Rating

An asset being physically inspected to determine its current state, classified using a score of 1-5.

Current Replacement Cost (CRC)

The cost required to replace the given asset in todays dollars. All dollar figures are ex GST.

Financial Data & Values

Obtained from AssetFinda reporting system as at January 2019.

Integrated Financial Plan (IFP)

The adopted Integrated Financial Plan 2019/20 to 2033/34 as at 28th May 2019.

The Institute of Public Works Engineering Australasia.

Maintenance

The reactive or planned work required to maintain the asset.

MARCIA

Most Accessible Regional City in Australia.

New & Expansion, Upgrade and Renewal Projects

Capital projects identified in the adopted Integrated Financial Plan 2019/20 to 2033/34.

Operating Costs

The everyday running costs of the asset.

Iseful Life

The estimated life expectancy of the asset.

The Building

portfolio consists of six building function types



The City of Bunbury

- Owns and maintains a building portfolio of 102 individual buildings
- Current replacement value \$148,229,652
- High level of confidence in the data collected within this plan
- \$16,487,660 worth of required renewals over the 15 year period
- 88.88% (\$131,741,992) of the Building portfolio does not fall due for renewal until after 2035
- Heritage buildings (9) do not form part of this asset management plan and are addressed separately.

1. Commercial Buildings (3)

> Is an independent business that operates from a City owned building.

Example: In-town Lunch Centre and Back Beach Café.

2. Community Buildings (18)

> Buildings that are either leased, occupied or visited by members of the public.

Example: Libraries, Clubrooms, Health Clinic and Bunbury Regional Entertainment Centre (BREC).

3. Corporate Buildings (10)

> Buildings that are for the sole purpose of City of Bunbury operations.

Example: City Works Depot and City Administration building.

4. Public Toilets (28)

> Amenities or ablution blocks that are available for public use.

Example: Rocky Point, Pelican Point toilet blocks and Exeloos.

5. Recreation Buildings (39)

> Buildings that are for the purpose of sporting organisations and activities.

Example: South West Sports Centre (SWSC), grand stands, pavilions and change rooms.

6. Transport & Regulation Buildings (4)

> Buildings for the sole purpose of administering City services to the community.

Example: Regional Animal Facility and Airport buildings.



Overview

Total of 102 buildings with a current replacement cost of \$148,229,652.

Building useful life and current replacement costs were obtained from an independent valuation in June 2017 by Australian Valuation Solutions.

Currently the Building replacement cost is based on the 'whole' building which includes the following elements;

- 1. Building Structure: walls, beams and flooring
- 2a. Internal Services Electrical: lighting, fire & security systems and smoke alarms
- 2b. Internals Services Hydraulics: lifts and elevators
- 2c. Internal Services Mechanical: air-conditioning units and hot water system
- 3. Fixtures: blinds, curtains, carpet, cupboards & fit out

Due to the above building elements having such varied useful lives the City is currently working towards componentising each building to ensure that sufficient renewal funding is available. As per the adjacent useful life graph 60.97% of all buildings have an 80 year life expectancy, however this does not accurately reflect the required renewal expenditure.



Current Replacement Cost, Useful Life & Age Profile

Current Replacement Cost Breakdown

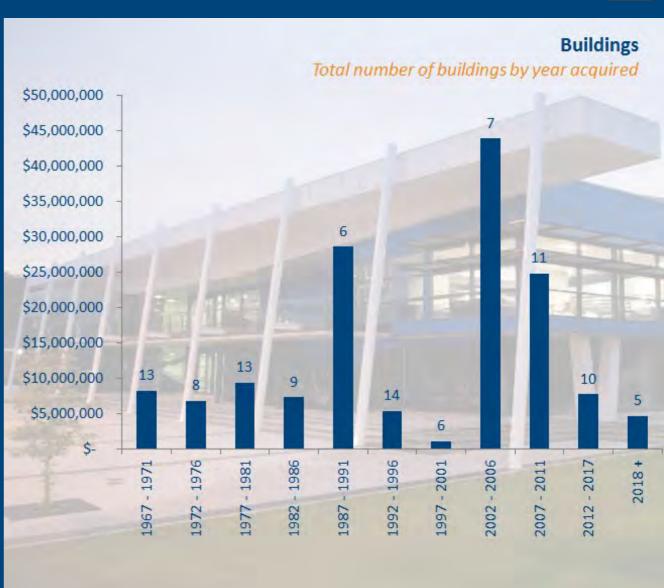
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Group	Count	CRC
Commercial	3	\$ 3,604,719 2.43%
Community	18	\$ 49,814,440 33.61%
Corporate	10	\$ 18,330,420 12.36%
Public Toilets	28	\$ 7,650,690 5.16%
Recreation	39	\$ 68,404,910 46.15%
Transport /Regulation	4	\$ 424,473 0.29%
Total	102	\$148,229,652 100%

74 Buildings have a 50 year or greater useful life with a replacement cost of \$143,910,190







Overview

"The Objective of a condition assessment is to provide sufficient information on asset condition to allow informed strategic asset planning and management decisions to be made" [IPWEA Practice Note 3].

Buildings are currently condition rated on the overall structure and not on the various individual components of the building. Australian Valuation Solutions condition rated the City's Buildings in May 2016.

The previous Building asset management plan listed 120 individual building however over the 2018/19 financial year several buildings have been disposed (23) such as the Nuytsia Avenue depot, Waste Facility sheds and SES facilities. In-conjunction with the disposed assets the City has also attained new buildings (5), such as the South's Building, Jetty Baths toilet block and the new Works Depot at Sutherland Way.

Building Condition (based on 102 buildings externally assessed in 2016)



Condition		Count	IPWEA Parameters
Excellent	25	(24.51%)	As new and structurally sound. No evidence of deterioration, damage or discoloration. Well maintained.
Good	15	(14.71%)	Structurally sound although with minor deterioration, discolouration and wear to surface. Minor maintenance only required.
Average	49	(48.04%)	Asset is functional but shows signs of moderate wear and tear. Deterioration surfaces require attention. Services are functional, but require attention.
Poor	13	(12.75%)	Asset has significant defects affecting major components. Deterioration surfaces require attention. Frequent maintenance inspections essential.
Very Poor	0	(0.00%)	Serious structural problems. General appearance is poor. Significant number of major defects exists.

Page 5 Condition Assessment

<u></u>		
Excellent (25)	Graham Bricknell Music Shell	Shed—Airport
City Administration Building	Toilet Block—Pelican Point 3	Shed—Forrest Park 1
City Works Depot	Toilet Block—Queens Gardens	Shed—Forrest Park 2
Shed—Athletics	Toilet Block—Upper Esplanade	Shed—Hands Oval
Toilet Block—Athletics	Transmitter Hutt—Boulters	Shed—Hockey 1
Kiosk—Koombana Foreshore	Clubrooms—Woodturners Ass.	Shed—Hockey 2
Clubrooms— Bethanie	Average (49)	Shed—Payne Park 1
BREC	Apex Scout Hall	Shed– Payne Park 2
Exeloo—Stephen St	Changerooms—AR Clarke (M)	Shed—Rec Ground
Exeloo—Holman St	Business Building—Souths	Clubrooms—Soccer Drome
City Library	Changerooms—Ocean Dr	Toilet Block—Jaycee Park
Regional Animal Facility	Changerooms—Hands Oval	Toilet Block—Maidens Park
Office—SES Headquarters	Chemical Shed—Waste Depot	Toilet Block—Ocean Drive
South West Sports Centre	Clubrooms—Badminton	Toilet Block—Payne Park
Changerooms—Hay Park 1	Clubrooms—Bowling Club	Toilet Block—St Marks
Changerooms—Hay Park 2	Clubrooms—Hockey	Toilet Block—Hands Oval 1 (F)
Shed—Works Depot	Clubrooms—Netball	Toilet Block—Hands Oval 2 (F)
Toilet Block—Airport	Clubrooms—PCYC	Toilet Block—Hands Oval 1 (M)
Toilet Block—Big Swamp	Clubrooms—Hands Oval	Changerooms—Payne Park
Toilet Block—Glen Iris Skate	Clubrooms—Tennis	Tool Shed—Wildlife Park
Toilet Block—Hungry Hollow	Changerooms—Kelly Park (F)	Poor (13)
Toilet Block—Jetty Baths	Health Clinic—DC Foster	Toilet Block—Athletic Track
Toilet Block—Pelican Point 1	Ronald McDonald House	Toilet Block—BMX Track
Toilet Block—Pelican Point 2	Pavilion—Kit Keddie	Clubrooms—Forrest Park
Toilet Block—Rocky Point	Pavilion—Len Nisbett	Shed—Payne Park 3
Workshop—Works Depot	Pavilion—Ned Myles	Shed—Tennis Club 1
Good (15)	Pavilion—Neville Eastman	Shed—Tennis Club 2
Café—In Town Centre	Landscape Shed—Waste Depot	Signage Shed—Waste Depot
Changerooms—Hockey	Withers Library	Toilet Block—Frank Buswell
Clubrooms—Surf Life Saving	Clubrooms—Moorbinda Croquet	Toilet Block—Hands Oval (M+F)
Cottage—Morrisey Homestead	Office- Waste Depot	Toilet Block—Rec Ground (F)
Exeloo—Jetty Road	Miniature Railway Roundhouse	Toilet Block—Rec Ground (M)
Grandstand—Hay Park	Community Hall– Hay Park	Toilet Block—Hands Oval 2 (M)
Office & Kiosk—Wildlife Park	Power Boat Club	Bunbury Croquet Club
Café—Back Beach	Toilet Block—Airport	
Shed—Bush Fire Brigade	Waste Oil Unit—Waste Depot	

Maintenance Budget

Building maintenance is the repairs and upkeep of the asset i.e. Fire & smoke alarm testing, painting and servicing of air conditioning units.

Building maintenance is split into two types:

- Scheduled all work required to keep buildings functioning and to minimise unscheduled breakdowns.
- Reactive all unplanned works required to keep the building functional and operational.

Building Maintenance budgets have been modelled on the following;

1. Existing IFP Maintenance Budget
The City's allocated maintenance budget = \$17,250,315.

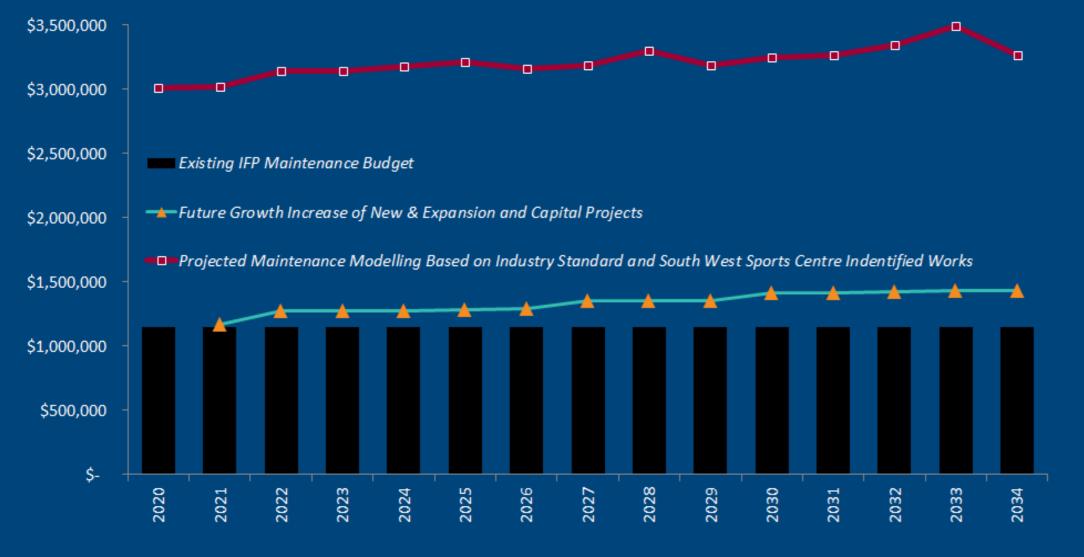
2. Future Growth Increase of New & Expansion and Capital Projects

As per the adopted IFP 2019/20 to 2033/34 the City has made allowance of 2 & 3% for the impact that New & Expansion and Capital Projects (\$11,630,000) will have on future building maintenance = \$19,895,815. Please note that the 2 & 3% growth has been applied to maintenance only and not split between operating and maintenance budgets.

3. Projected Maintenance Modelling based on Industry Standards and South West Sports Centre Identified Works

- a) An allowance of 2% of the buildings current replacement value for maintenance which is standard practice within the building industry until such time as a detailed maintenance plan is implemented.
- b) External audit by Aquatic Services of South West Sports Centre plant, completed March 2019. Total building maintenance required = \$48,153,490.

Modelling on Maintenance Budget



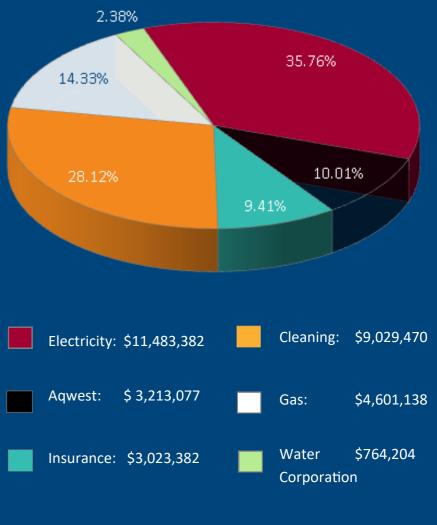
Page 6 Maintenance and Operating Budget

Operating Budget

The costs associated with the everyday running of the building asset e.g. electricity, gas, insurance, water, security patrol

Total Operation budget (15 years) \$32,114,653

• Total Operation budget (average per annum) \$ 2,140,977



The City is developing a comprehensive maintenance plan for buildings as the existing allocated budget is not sufficient to fund both scheduled and reactive maintenance works.

An increase in the maintenance budget will ensure the capacity to deliver the required works within the appropriate timeframe.

New & Expansion and Capital Upgrade Overview

- New and Expansion works refer to the creation of assets that did not previously exist and addresses growth, social or environmental needs.
 - Example: Hay Park South Sports Pavilion.
- Capital Upgrade works refer to improvement and expansion of an existing assets capacity and functionality.
 Example: expansion works at Bunbury Regional Entertainment Centre.

Capital new funding can be sourced from a number of resources including grant funding, external loan, City of Bunbury reserves and cash.

As per the Integrated Financial Plan \$11,630,000 has been allocated to various New & Expansion and Capital Upgrade projects over the 15 year period.

The financial impact of New and Expansion and Capital Upgrade projects in regards to operating and maintenance costs has been included in the budget modelling (refer to page 6—maintenance and operating budgets).

Disability Access & Inclusion Plan and MARCIA

In-line with the City's Disability Access and Inclusion Plan 2017-2022 and the Strategic Community Plan 2018—2028 to establish Bunbury as the most accessible regional city in Australia, the City is now looking to install and retrofit existing buildings to meet the needs of the community and visitors to our City.

Examples of projects already completed to strive to the above aspirations:

- 2017 Koombana Foreshore: 'changing places' public toilet facility with full sized change tables and hoist
- 2018 South West Sports Centre: additional family and accessible change rooms
- 2018 Bunbury Regional Entertainment Centre: accessible toilet

New & Expansion and Capital Upgrade Projects

Year	Project ID	Description	В	udget
2020-2021	PR-4786	Construct Youth Precinct	\$ 5	5,500,000
2020-2022	PR-4112	Upgrade facilities to meet MARCIA goals	\$	300,000
2020	PR-4734	Upgrade building fire suppression - SWSC	\$	350,000
2021	PR-4739	Construct stairs—Regional Animal Facility	\$	20,000
2021	PR-4415	Reconfigure PC computer space - City Library	\$	20,000
2022	PR-4418	Reconfigure refreshments area—City Library	\$	10,000
2024-2025	PR-4444	Construct education centre—Wildlife Park	\$	220,000
2024 +	PR-4029	Infrastructure redevelopment—Hay Park	\$ 4	1,800,000
2025	PR-4397	Reconfigure front service desk area—City Library	\$	30,000
2025	PR-4442	Upgrade Wildside Café—Wildlife Park	\$	80,000
2031	PR-1856	Install ablution block—Eliot Street	\$	300,000
Total Project	ts		\$11	,630,000

Strategic plans driving future projects

- 1. City of Bunbury Strategic Community Plan
- 2. Community Sports and Recreation Strategy (in development)
- 3. Public Open Space Strategy: Parks and Playgrounds (in development)
- 4. Buildings Levels of Service (to be completed)
- 5. Disability & Access Inclusion Plan and MARCIA



Renewal Overview

Asset Renewal is the replacement or refurbishment of an existing asset to return it to its original performance and service level (like for like).

Renewal planning is essential to ensure that adequate funding is available and assets are replaced at an optimum time thus maintaining the desired service levels.

The Building renewal budget is calculated on the age of the asset.

Using the year of acquisition and the useful life determines the year each building falls due for replacement. The physical condition of each building is not yet a driving factor determining replacement.

Renewal Period

Backlog	\$	197,925	(0.13%)
• 15 year renewal	\$ 16	5,289,735	(10.99%)
Beyond 2035	\$13	1,741,992	(88.88%)

Renewal Budget

Total Required Renewals (15 years)	\$ 16,487,660
Total IFP Renewal Budget (15 years)	\$ 20,535,000
Total Renewal Surplus (15 years)	\$ 4,047,340
Total renewal Surplus (per annum)	\$ 269,823

Whilst there is currently a surplus of renewal funds once componentisation of buildings commences this year, the required renewals will increase thus absorbing the excess funds.

The spike in the 2027 required renewals graph is the replacement of various sporting pavilions and facilities (\$5,572,350).



Componentising buildings will significantly alter the required renewals within the 15 year renewal and beyond 2035 period.

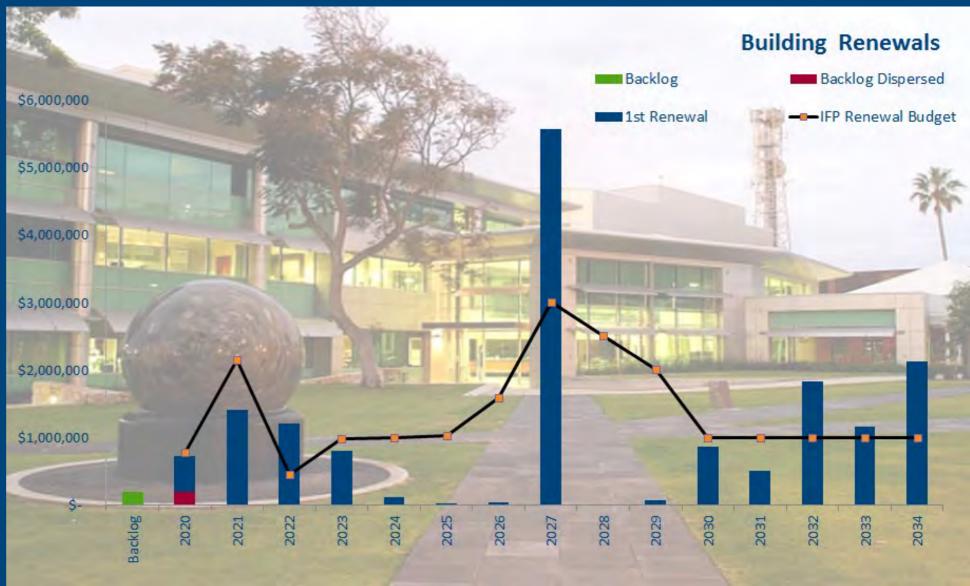
Beyond 2035 Breakdown

Year	Count	Count %	CRC	CRC %
2035 to 2044	24	38.71%	\$ 15,649,927	11.88%
2045 to 2054	15	24.19%	\$ 12,417,290	9.43%
2055 to 2064	12	19.35%	\$ 3,781,075	2.87%
2065 to 2074	7	11.29%	\$ 32,809,850	24.90%
2075 to 2084	2	3.23%	\$ 43,850,500	33.28%
2085 to 2094	2	3.23%	\$ 23,233,350	17.64%
Total	62	100%	\$131,741,992	100%

Top Four Building Renewals

- South West Sports Centre (Recreation)
 \$42M in 2082
- 2. BREC (Community) \$25M in 2069
- 3. City Administration Building (Corporate) \$14M in 2087
- 4. Bunbury Regional Library (Community) \$9M in 2089





Whilst the budget indicates a surplus of \$4,047,340 over the 15 year period, it has to be noted that 88.88% (\$131,741,992)

of the building portfolio does not fall due for renewal until after 2035.

Backlog

assets that fall due for renewal prior to 2019 but have not yet been replaced or refurbished.

Backlog Dispersed

spreading the backlog of asset renewals over the renewal period.

1st Renewal

an asset due for renewal for the first time within the 15 year period.

IFP Budget

projects that have been identified and included in the Integrated Financial Plan.

- As per the local Government (Financial Management) Regulations 1996—Regulation 50 financial ratios are to be included in the Annual Financial Report.
- Ratios are calculated on the figures over the 15 year period (2019/20 to 2033/34).

Asset Consumption Ratio (ACR)

Therefore

	o which depreciated assets have beening their written down value to their
Target	50% - 70%
Asset Replacement Rate	66.74%
Measurement Note	< 50% ratio indicates a rapid deterioration of the asset base.
	60% ratio indicates an adequate useable level of service across asset categories.
	> 75% ratio indicates a possible over

depreciated replacement cost of assets current replacement cost of depreciable assets

investing in the asset base.

This ratio indicates that the City is

depreciating buildings at a reasonable rate.

Asset Sustainability Ratio (ASR)

compared to the amo	ount consumed (depreciated).			
Target	90% - 110%			
Asset Replacement Rate	61.80%			
Measurement Note	< 90% ratio indicates possible under investing in renewal and replacement of assets.			
	>110% indicates possible over investing in renewal and replacement of assets.			
Therefore	The City is currently not replacing buildings at the rate that they are depreciating.			
capital renewal and replacement expenditure				

depreciation expense

Measures the extent to which assets are being renewed / replaced

compared to the amount consumed (depreciated)



Page 9 Evaluation

Asset Renewal Funding Ratio (ARFR)

This ratio provides an indication of the City's financial capacity to fund required Building asset renewals.

fund required Building	g asset renewals.
Target	95% - 105%
Asset	124.55%
Replacement Rate	
Measurement	> 95% ratio indicates that the IFP makes
Note	adequate provisions to maintain existing
	levels of service and renew or replace assets.
	< 75% ratio indicates possible inadequate
	provision for future renewal or replacement of
	the asset base.
Therefore	Whilst the asset renewal funding ratio reflects
THETETOTE	Whilst the asset renewal funding ratio reflects
merciore	over servicing of Buildings over the next 15 year
mererore	
THETETOTE	over servicing of Buildings over the next 15 year
THETETOTE	over servicing of Buildings over the next 15 year period, this is not a true reflection as 88.88% of
THETETOTE	over servicing of Buildings over the next 15 year period, this is not a true reflection as 88.88% of the building portfolio does not fall due for
THETETOTE	over servicing of Buildings over the next 15 year period, this is not a true reflection as 88.88% of the building portfolio does not fall due for replacement until beyond 2035.
THETETOTE	over servicing of Buildings over the next 15 year period, this is not a true reflection as 88.88% of the building portfolio does not fall due for replacement until beyond 2035. Based on current data the City's four highest

net present value of planned capital renewal over 15 years net present value of required expenditure over 15 years





Heritage Building Asset Management Plan 2019

- Owns and maintains a portfolio of 9 Heritage Listed Buildings, with six being State listed
- Whilst Heritage buildings have a current replacement cost of \$29,965,845, this is however not an accurate measure of its value as Heritage buildings are not planned to be replaced
- Any works to Heritage Buildings are to meet the heritage requirements of the Heritage Council of WA and City of Bunbury planning approvals
- \$162,344 expenditure to maintain and operate heritage buildings in 2017/18
- The City has an allocated budget for an independent Heritage Advisor to provide guidance on all heritage works
- The biggest driver for Heritage works is the Conservation Management Plans and the development of comprehensive maintenance schedules
- Previous Building asset management plans listed 19 heritage buildings which included outbuildings and sheds that are now captured at location level
- Financial data and values obtained from AssetFinda reporting system as at January 2019. All figures exclude GST.













Original Year of Construction

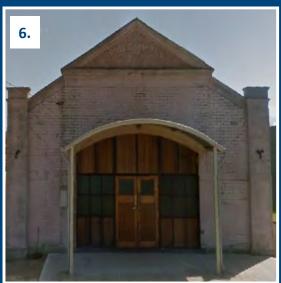
1. King Cottage Museum *

2.	Bunbury Museum & Heritage Centre*	1886
3.	Senior Citizen Arts Centre	1880
4.	Bunbury Regional Art Gallery*	1897
5.	Council Chambers*	1897
6.	Picton Hall	1909
7.	Stirling Street Arts Centre	1917
8.	Lady Mitchell Health Centre*	1950
9.	Old Railway Station*	1905 circa

1880

This date refers to the original construction of the building and does not include subsequent restoration works, extensions and out buildings.

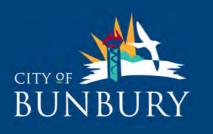
* Indicates Heritage Buildings that are State listed.











Marine Asset Management Plan 2019



Asset Overview	Useful Life	Length		CRC
Swimming Pontoon	8 yrs	1	ea	\$ 35,000
Boat Ramps	20 yrs	4	ea	\$ 1,870,000
Boat Ramp Matting	20 yrs	53.25	m2	\$ 64,961
Fishing Platform	20 yrs	2	ea	\$ 280,000
Jetties	30 yrs	7	ea	\$ 2,530,000
Seawall - Concrete	20 yrs	50	m	\$ 125,750
Seawall - Ferricrete	30 yrs	320	m	\$ 1,300,000
Seawall - Limestone	40 yrs	2,605	m	\$17,101,240
Seawall - Sheet Pile	50 yrs	606	m	\$ 1,516,050
Seawall - Rock	60 yrs	337	m	\$ 1,320,000
Revetment Wall	80 yrs	202	m	\$ 1,159,127
Current Replacement Value				\$27,302,128

- 3.92 km of constructed seawalls
- Externally valued in June 2018
- High level of confidence regarding replacement value
- Financial data and values obtained from AssetFinda reporting system as at January 2019. All figures exclude GST.

Renewal Period

Backlog	\$ 125,750	(0.46%)
15 year renewal	\$ 8,636,800	(31.63%)
Beyond 2035	\$18,539,578	(67.91%)
Total Current Replacement Cost	\$27,302,128	
Renewal Budget		
Total Required Renewals (15 years)	\$ 8,762,550	
Total IFP Renewal Budget (15 years)	\$ 8,827,600	

65,050

IFP Budgets 2019/20 to 2033/34

• Total Renewal Surplus (15 years)

•	Operating & Maintenance	\$ 522,150	

New & Expansion Capital Works \$ 208,000

Marine Overview

- Marine infrastructure renewal financial figures are based on 'remaining useful life'
- Remaining useful life uses the estimated life
 expectancy of the asset before it will need to be
 replaced. Factors determining remaining useful life
 include (but not limited to) condition, environment,
 maintenance and levels of service
- The boat ramp at Sykes Foreshore was upgraded in 2018/19 to include flex matting—which extends the existing ramp by a further 2.4m at a cost of \$64,960
- Flex matting also assists in the prevention of sea bed erosion
- As per the below image the seawall at Frank Buswell
 Foreshore is currently under reconstruction with an
 allocated renewal budget of \$2,130,000 over a five
 year period.



1.32km of marine walls identified for replacement in the 15 year renewal period—all of which are located in the Leschenault Inlet.



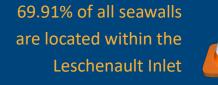
Image	Description	Locations	Image	Description	Locations
Image	Boat Ramps Used for launching boats or water craft from trailers. Example: Pelican Point	 Stirling Street Pelican Point Leschenault Inlet Sykes Foreshore 	Tillage Tillage	Jetties A landing or small pier which boats can dock or be moored. Example: Stirling Street	 Marlston Waterfront Stirling Street Pat Usher Foreshore Sykes Foreshore Pelican Point Queens Gardens
	Fishing Platform Designated for the use of recreational fishing with the docking of boats prohibited. Example: Stirling Street	Turkey PointStirling Street	BOATING PROHIBITED TO THE UP	Swimming Pontoon A floating platform or dock used for leisure and recreation purposes with the docking of boats prohibited. Example: Koombana Beach	Koombana Beach
	Seawalls A structure separating land and water ways. Designed to prevent coastal erosion and other damage due to wave action and storm surge, such as flooding. Example: Pat Usher Foreshore (Leschenault Inlet)	 Hayward Street Marlston Waterfront Hungry Hollow Koombana Bay Pelican Point Leschenault Inlet 		Revetment Wall A sloping structure placed in such a way to absorb incoming water or to protect existing functions of the shoreline and slope as defence against erosion. Example: Koombana Foreshore	• Koombana Foreshore The revetment wall image of Koombana was taken during construction in June 2017. The Revetment wall was back filled and covered with sand once the rock had been laid.



The Leschenault Inlet is a remnant of the lower section of the Leschenault Estuary which was separated from the main water body by the construction of the inner harbour in the 1970's. The inlet is approximately 1.9km long and up to 200m wide. Seawalls within the inlet are located in the vicinity of;

- > 1. Sykes Foreshore
- > 2. Koombana Drive
- > 3. Frank Buswell Foreshore
- > 4. Queens Gardens
- > 5. Pat Usher Foreshore
- 6. Lot 681 / Lucianna Park
- 7. The Plug







Open Space Asset Management Plan 2019



Page 2 **Glossary** of Terms **Asset Renewal** Replacing or refurbishing an existing asset with an asset of equivalent capacity or performance capability. **Asset Renewal Period** The estimated replacement period of the asset. **Condition Rating** An asset being physically inspected to determine its current state, classified using a score of 1-5. **Current Replacement Cost (CRC)** The cost required to replace the given asset in todays dollars. All dollar figures are ex GST. **Financial Data & Values** Obtained from AssetFinda reporting system as at January 2019. **Integrated Financial Plan (IFP)** The adopted Integrated Financial Plan 2019/20 to 2033/34 as at 28th May 2019. **IPWEA** The Institute of Public Works Engineering Australasia. Maintenance The reactive or planned work required to maintain the asset. **MARCIA** Most Accessible Regional City in Australia. **New & Expansion, Upgrade and Renewal Projects** Capital projects identified in the adopted Integrated Financial Plan 2019/20 to 2033/34. Public Open Space Strategy (POS): Parks & Playgrounds An audit and assessment of the City's existing parks and playgrounds. Currently under development. **Useful Life** The estimated life expectancy of an asset.



The City of Bunbury

Page 3

Overview

- Current replacement value \$21,498,228
- Owns and maintains a public recreation and irrigation network comprising of 2,097 individual assets
- Currently underfunded by \$1,309,251 for required renewals over the 15 year period
- 38.94% (\$8,371,638) of the Open Space network does not fall due for renewal until after 2035
- Maintains 55 hectares of grass sporting surfaces with an estimated replacement cost of \$5.8M
- Decrease in asset count from 17/18 to 18/19 data is due to irrigation pipe, bollards and garden edging no longer being captured as active assets

1. Public Recreation data is included in this plan

Includes asset such as playgrounds, shade, sportsground surfaces and infrastructure and street scape furniture

- Current replacement cost of \$16,909,494
- 1,919 individual assets captured within the database
- High confidence levels in the data collected within this plan
- Shade sail assets were previously captured in the 'Structures' layer but relocated to 'Open Space' in 18/19 as they form part of the proposed playground replacement program

3. Street Tree data is <u>not</u> reflected in this plan.

Includes trees located within the road reserve and or verge area

- The City currently oversees the maintenance of over 14,000 street trees with an average annual operating budget of \$1,026,258
- Current replacement cost of \$2,124,000 which is not a true reflection of the tree network worth as current tree replacement figures are not based on like for like
- Over the 2018/19 financial the City planted in excess of 650 trees throughout our parks, public open space and verges

2. Irrigation data is included in this plan

Includes assets such as bores, pumps, filtration systems, controllers and electrical cabinets

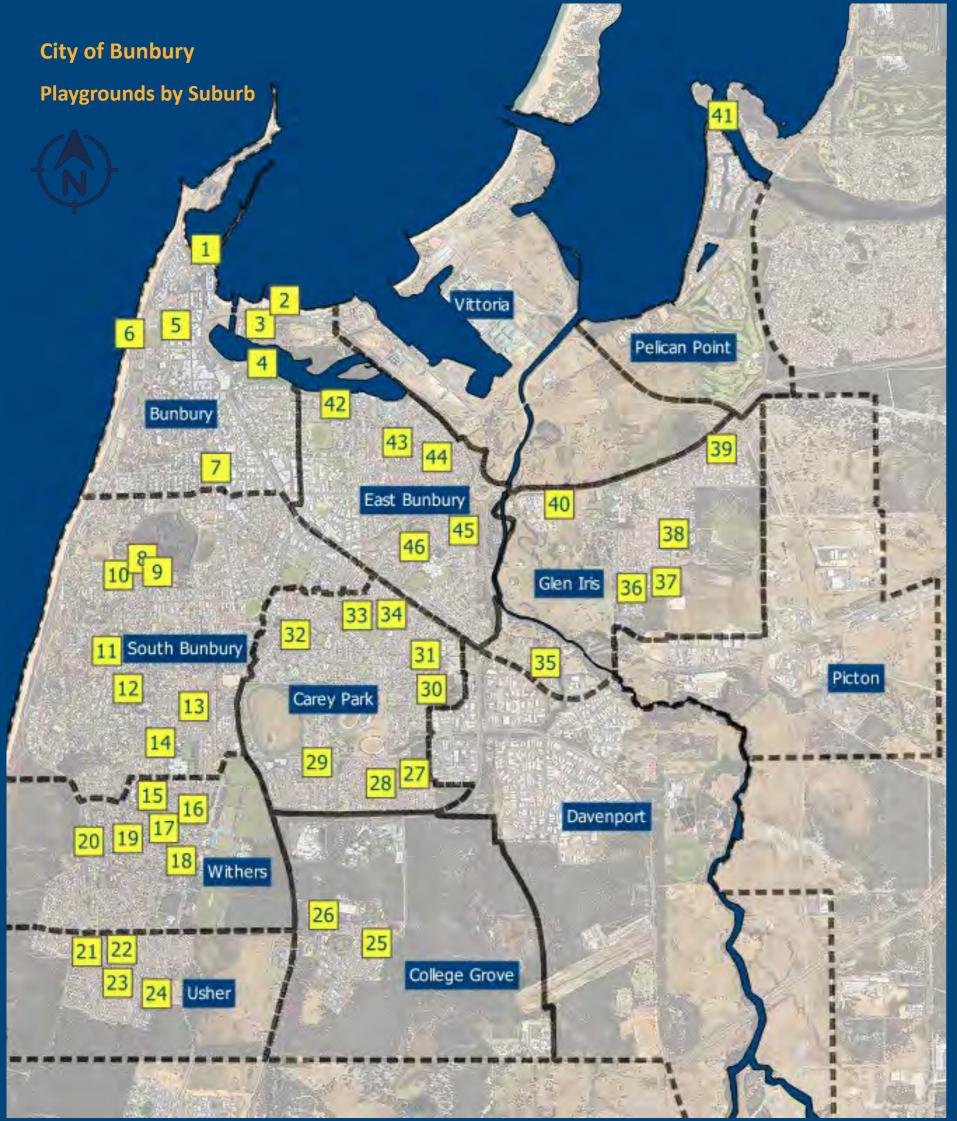
- Current replacement cost \$4,588,734
- 178 individual assets captured within the database
- High confidence levels in the data collected within this plan
- Excludes sprinklers and solenoids as they are consumables and replaced on an as needs basis
- Excludes pipes, meters and valves as insufficient data verified

4. Landscaping data is <u>not</u> reflected in this plan

Includes garden beds, plants, non-sporting turf, mulching and overall beautification

 Landscaping works will not be replaced under capital renewal but maintained through operational budgets





Page 4 Playgrounds

Bunb	ury	16.	Les Wilson Park	31.	Len Ferguson Park
1.	Jetty Baths	17.	Mason Park	32.	Honey Park
2.	Koombana Foreshore	18.	Des Ugle Park	33.	Kelly Park
3.	Sykes Foreshore	19.	Moriarty Park	34.	Jaycee Park
4.	Queens Gardens	20.	Maidens Park	Glen	lris
5.	Ron Mort Park	Ushe	er	35.	Ken Cantwell Park
6.	Rocky Point	21.	Whiteman Park	36.	Fenian Park
7.	Garvey Park	22.	Ray Bain Park	37.	Gidgee Park
South	n Bunbury	23.	Smeeth Park	38	Catalpa Park
8.	Big Swamp Park	24.	Dudley Park	39.	Sundew Park
9.	Big Swamp - Other	Colle	ge Grove	40.	Riverlea Park
10.	Elizabeth Park	25.	St Peters Green	Pelica	n Point
11.	Mangles Park	26.	Trinity Green	41.	Pelican Point Park
12.	Fitzgerald Park	Care	y Park	East E	Bunbury
13.	Bellemore Park	27.	Loughton Park	42.	Frank Buswell Foreshore
14.	Bob Howells Park	28.	Rotaract Park	43.	Bill Beaton Park
With	ers	29.	Kimberley Park	44.	Tim Shaw Park
15.	DC Foster Park	30.	Melaleuca Park	45.	Coverley Park
				46.	Barnes Park



Public Open Space Strategy: Parks & Playgrounds

The City currently owns and maintains 46 individual playgrounds located across nine residential suburbs.

The City is in the process of implementing an Public Open Space Strategy: Parks & Playgrounds, with a key objective being a formalised playground replacement program. This strategy is currently being prepared to be endorsed by Council.

Useful Life

Useful life is the period over which an asset is expected to be available for use.

The Open Space asset useful life has been determined using industry standards:

- (1) IPWEA Renewal Planning, Valuation & Asset Management Plans Practice Note 10.2, Section 3.4 Common Industry Asset Lives.
- (2) Local Government Appendix 6 Depreciation Schedule for the South West Region.

Many factors can affect an assets useful life including:

- Asset materials i.e. timber v aluminium seating
- Environment i.e. coastal v sheltered location
- Environment i.e. coastai v sneitered locat

- Regular maintenance routine
- Desired levels of service

• Frequency of use

As per the draft Public Open Space Strategy; Parks and Playgrounds the useful life of playground and related infrastructure has been set at 15 years in-line with the proposed playground replacement program.

Current Replacement Cost

Current Replacement Cost is based on 2017 pricing schedules:

- Quotes obtained from relevant suppliers
- City of Bunbury tendered capital works projects
- Rawlinson's Australian Construction Handbook 2016

Unless otherwise specified replacement costs include supply, delivery & installation.



Current Replacement

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Cost and Useful Life

Asset Type	Asset Sub Type	Useful Life	Asset Count	Measure	CRC
Playgrounds	Play Equipment	15 yrs	246	ea	\$ 2,577,204
	Gym Equipment	15 yrs	19	ea	\$ 95,031
(\$2,396,962)	Softfall	15 yrs	1,526.26	m2	\$ 326,813
	Softfall Surround	15 yrs	1,743.36	m	\$ 110,325
	Bar Setting	15 yrs	1	ea	\$ 43,365
	Barbeque	25 yrs	39	ea	\$ 291,648
	Beach Shower	20 yrs	31	ea	\$ 95,474
Furniture (\$3,109,373)	Bicycle Rack	25 yrs	130	ea	\$ 131,164
(53,103,373)	Drink Fountain	20 yrs	54	ea	\$ 210,953
	Picnic Setting	20 yrs	140	ea	\$ 625,920
	Seating	15 - 35 yrs	490	ea	\$ 998,438
Shade	Sails	15 yrs	108	ea	\$ 352,200
(\$1,147,200)	Posts	15 yrs	265	ea	\$ 795,000
	Sports Bench	15 - 25 yrs	207	ea	\$ 115,092
1	Athletics Track: Surface	10 yrs	1	ea	\$ 944,555
	Athletics Track: Pavement	50 yrs	1	ea	\$ 353,153
	Goal Posts, Hoops & Nets	10 - 25 yrs	71	ea	\$ 225,734
Sporting (\$10,255,959)	Playing Surface: Artificial Turf	10 yrs	17,111.33	m2	\$ 753,561
(+20)200)300)	Playing Surface: Hard	25 - 50 yrs	18,286.68	m2	\$ 798,541
	Playing Surface: Grass	100 yrs	545,850.64	m2	\$ 5,849,165
	Skate Park Bowls	35 yrs	2	ea	\$ 1,050,000
	Net Fencing & Surround	25 - 40 yrs	4	ea	\$ 166,158
Public Recreation	on Total				\$16,909,494
	Backwash Soakwell	100 yrs	1	ea	\$ 2,642
Bore Assembly	Bore	25yrs	43	ea	\$ 2,514,075
(\$3,615,769)	Bore Filtration	15 yrs	7	ea	\$ 562,503
	Pump & Motor	15 yrs	41	ea	\$ 536,549
Control System (\$972,965)	Controllers	15 yrs	44	ea	\$ 223,680
	Electrical Cabinet	15 yrs	40	ea	\$ 714,267
	Weather Condition Unit	15 yrs	1	ea	\$ 17,819
	Weather Station	15 yrs	1	ea	\$ 17,199
Irrigation Total					\$ 4,588,734
Total Open Spa	ce Asset Value				\$21,498,228

Asset Age

Indicates the count of assets that were installed in a particular period. Open Space installation dates have been compiled from various sources that include but not limited to: Parks & Gardens historical data, tendered works, as constructed drawings, financial records and aerial imagery.

Condition Overview

"The objective of a condition assessment is to provide sufficient information on asset condition to allow informed strategic asset planning and management decisions to be made" [IPWEA Practice Note 3]

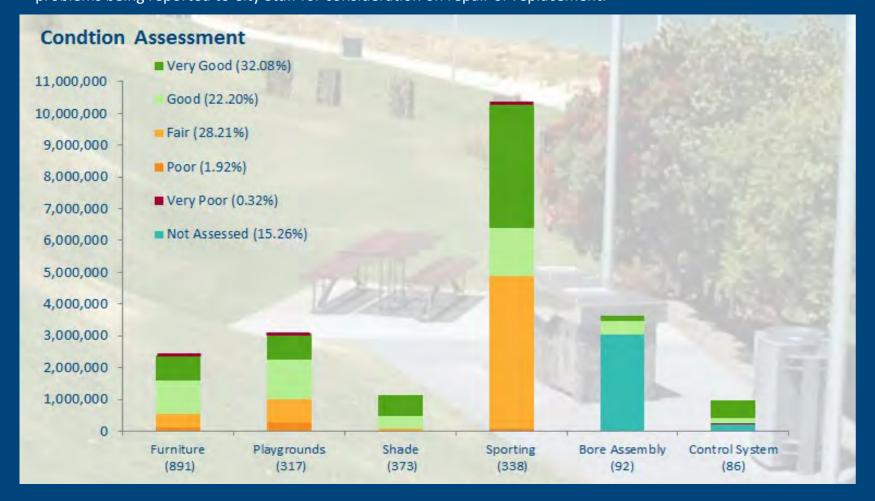
Open Space assets have been condition rated based on IPWEA— Parks Management Inventories, Condition & Performance Grading Practice Note 10.1 v1 2014 as per the stated parameters in the adjacent table.

The condition rating is based on the collected Open Space assets that have been visually inspected and assessed in this financial year.

As per the below chart, certain assets are not condition assessed for various reasons, these assets are rated 'Not Assessed'

- Bores: These assets are submersed and not accessible for assessment
- Pumps & Motors: Asset is either submersed or does not deteriorate as it is replaced or repaired as soon as it fails
- Controllers: Asset does not deteriorate as it is replaced or repaired as soon as it fails
- Sporting (turf surfaces) must be constantly maintained to sporting standard and agreed service level

Bore Filtration units are currently serviced monthly by an external contractor during the irrigation season (September to June). Each asset is inspected and serviced with minor issues being resolved onsite and larger problems being reported to City Staff for consideration on repair or replacement.



Page 6

Asset Age and Condition Assessment

Very Good

Sound physical condition.

No work required.



Barbeque at Kelly Park

Good

Acceptable physical condition; minimal short term failure risk but potential for deterioration.

Only minor work required if any.



Picnic Setting at Sundew Park

Fair

Significant deterioration evident; failure unlikely in near future but further deterioration likely.

Renewal likely to be required medium term 5—10 years.



Drink Fountain at DC Foster Park

Poor

Failure likely in short term.

Renewal likely to be required short

term 2-5 years.



Playing surface (basketball) at Des Ugle Park

Very Poor

Failed or failure imminent / potential safety risk.

Refurbishment, replacement or removal required as a priority.



Play equipment (rusted post) at Ken Cantwell

Renewal Overview

Asset Renewal is the replacement or refurbishment of an existing asset to return it to its original performance and service level (like for like).

Renewal planning is essential to ensure that adequate funding is available and assets are replaced at an optimum time thus maintaining the desired service levels.

Majority of the Open Space network renewal budget is calculated on the age of the asset and not the physical condition of the asset.

The year of acquisition and the useful life determines the year that the asset falls due for replacement however, playground assets (equipment, shade sails, softfall and softfall surround) will be renewed in-line with the proposed 15 year playground replacement program that is currently being developed in conjunction with the Public Open Space (POS) Strategy; Parks and Playgrounds.

The following renewal figures are based on existing infrastructure in our Parks however this may vary once the POS Strategy has been finalised.

Renewal Period

•	Total backlog	\$ 3,463,853	(16.11%)
•	Total 15 year renewal	\$ 9,662,737	(44.95%)
•	Total beyond 2035	\$ 8,371,638	(38.94%)

Renewal Budget

•	Total backlog	\$ 3,463,853
•	Total 1st renewal	\$ 9,662,737
•	Total 2nd renewal	\$ 961,661
•	Total projected renewals (15 years)	\$14,088,251
•	Total IFP renewal budget (15 years)	\$12,779,000
•	Total Renewal shortfall (15 years)	\$ 1,309,251
•	Total shortfall (per annum)	\$ 87,283

As well as the budget indicating a renewal shortfall of \$1,309,251 over the 15 year period, it has to be noted that \$8,371,638 (38.94%) of the Open Space network does not fall due for renewal until after 2035.

The backlog of assets is predominantly the renewal of

•	bore assembly related assets:	\$1,110,586	(32.06%)
•	playground related assets:	\$1,001,250	(28.91%)

The remaining backlog comprising of various assets such as bench seats, beach showers and sporting infrastructure.

This plan acknowledges the renewal of existing assets only and does not pre-empt the expenditure or required budget for renewing and upgrading assets within future projects.

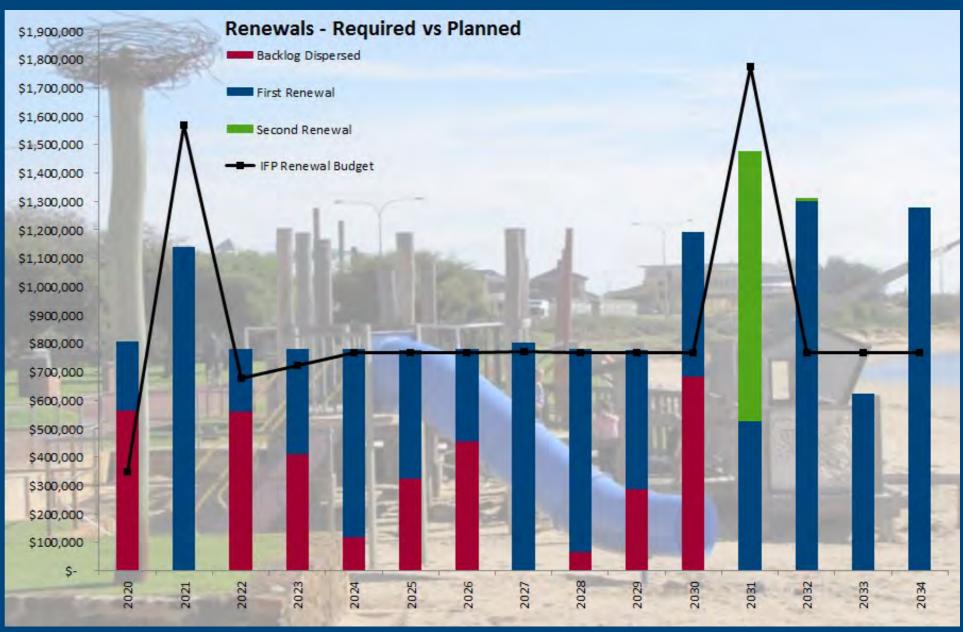
Beyond 2035 Breakdown

2035 to 2044	\$1,649,994	(19.71%)
2045 to 2054	\$ 463,882	(5.54%)
2055 to 2064	\$ 578,273	(6.91%)
2065 to 2074	\$ 226,220	(2.70%)
2075 to 2084	\$4,703,374	(56.18%)
2105 to 2114	\$ 628,343	(7.51%)
2115 to 2024	\$ 121,552	(1.45%)
Total	\$8,371,638	100%

Page 7 Renewals

The spike in the IFP budget line in 2021 is when the athletics track surface falls due for its first renewal (\$1M) and then again in 2031 for the second renewal.





<u>Backlog</u>

assets that fall due for renewal prior to 2019 but have not yet been replaced or refurbished.

Backlog Dispersed spreading the

backlog of asset renewals over the fifteen year period.

1st Renewal

an asset due for renewal for the first time within the 15 year period.

2nd Renewal

an asset due for renewal for the second time within the 15 year period.

IFP Budget

projects that have been identified and included in the Integrated Financial Plan.

New and expansion works refer to the creation of assets that did not previously exist and addresses growth,

Page 8

Maintenance and Project Overview

• **Capital upgrade** works refer to improvement and expansion of an existing asset capacity and functionality *e.g. Kelly Park playground upgrade*.

Open Space maintenance is the repair and upkeep of assets ensuring safety, functionality and operational capacity. Maintenance may be:

- **Scheduled:** (planned) e.g. routine mowing of grass and sportsgrounds.
- Reactive: (unplanned) e.g. vandalism and ad hoc requests from ratepayers.

social or environmental needs e.g. Koombana Foreshore development.

As per the adopted Integrated Financial Plan 2019/20 to 2033/34 the City has acknowledged and made allowance for the costs that will be incurred to maintain and up-keep future growth assets.

The impact of new and upgrade capital projects on operating expenditure (i.e. increased: maintenance, repairs, insurance, utilities etc) of 2.0% (increasing to 3.0% from 2023/24) of capital expenditure and has been included in the IFP to recognise the whole-of-life cost."

The future growth value in the adjacent graph indicates the required budget to allow for the increase of additional maintenance for New & Expansion and Capital upgrade Projects \$8,215,000.

New & Expansion and Capital Upgrade Projects

Year	ID	Description	Budget
2020	PR-4785	Upgrade reticulation Payne Park	\$ 75,000
2020 to 2034	PR-2362	Install drinking fountains Parks and Cycle Ways	\$ 180,000
2021 +	PR-3980	Install shade sails (\$50K every second year)	\$ 350,000
2021	PR-1543	Install landscaping & irrigation Boulters Heights	\$ 50,000
2022 & 2023	PR-1538	Install landscaping & irrigation Back Beach	\$ 250,000
2023	PR-4109	Install new seating Bunbury Wildlife Park	\$ 10,000
2031	PR-1883	Install infrastructure for waste water recycling	\$7,300,000
Total			\$8,215,000





- As per the Asset Management Guidelines for Western Australian Governments, asset management programs should include evaluation mechanisms to measure their effectiveness against the targets and outcomes set out in Asset Management Strategies and Plans
- As per the Local Government (Financial Management) Regulations 1996—Regulation 50 financial ratios are to be included in the Annual Financial Report
- The below findings are based on the combined financials for public recreation and irrigation
- Ratios are calculated on the figures over the 15 year period (2019/20 to 2033/34).

Asset Consumption Ratio (ACR)

Measures the extent to which depreciated assets have been consumed by comparing their written down value to their replacement cost.			
Target	50% - 70%		
Asset Replacement Rate	63.19%		
Measurement Note	< 50% ratio indicates a rapid deterioration of the asset base. 60% ratio indicates an adequate useable level of service across asset categories.		
	> 75% ratio indicates a possible over investing in the asset base.		
Therefore	This ratio demonstrates that the City's Open Space asset useful life is reasonable and that assets are depreciating at an acceptable rate.		

depreciated replacement cost of assets current replacement cost of depreciable assets





Asset Sustainability Ratio (ASR)

	to which assets are being renewed / replaced ount consumed (depreciated).	
Target	90% - 110%	
Asset Replacement Rate	78.38%	
Measurement Note	< 90% ratio indicates possible under investing in renewal and replacement of assets.	
	>110% indicates possible over investing in renewal and replacement of assets.	
Therefore	The City has vastly improved from last year ratio of 51.18% mainly due the increase in the IFP renewal budget.	
capital ren	ewal and replacement expenditure	

depreciation expense



Asset Renewal Funding Ratio (ARFR)

This ratio provides an indication of the City's financial capacity to fund required Open Space asset renewals.

Target	95% - 105%
Asset	90.71%
Replacement Rate	
Measurement	> 95% ratio indicates that the IFP makes
Note	adequate provisions to maintain existing
	levels of service and renew or replace
	assets.
	< 75% ratio indicates possible inadequate
	provision for future renewal or
	replacement of the asset base.
Therefore	This ratio indicates an improvement of
	25.59% from last years asset management
	plan due to recognising the need for funds
	in the IFP to align with renewal
	requirements (increase by \$4,917,299).
	This is mainly due to the Athletics Track
	second renewal and increase in the
	playground replacement program.

net present value of planned capital renewal over 15 years net present value of required expenditure over 15 years





Other Asset Management Plan 2019



Data Breakdown

Asset Group	Asset Type	Useful Life	Size		CRC
	Sporting venues	5 to 25 yrs	124	ea	\$ 971,226
	Koombana	10 to 25 yrs	534	ea	\$ 710,710
	Airport	10 to 25 yrs	91	ea	\$ 62,432
Lighting	CBD	5 to 25 yrs	1,002	ea	\$1,128,444
Lighting	Ocean Drive	10 to 25 yrs	251	ea	\$ 173,228
	Parade Road	10 to 25 yrs	84	ea	\$ 53,260
	Sutherland Way Depot	10 to 25 yrs	62	ea	\$ 90,700
	All Other	10 to 25 yrs	190	ea	\$ 150,172
Total Lighting					\$3,340,172
Public Transport	Bus Stop Shelter	30 yrs	126	ea	\$1,283,079
Total Public Transport				\$1,283,079	
	Recycling rubbish bins	10 yrs	16,743	ea	\$ 751,509
	General rubbish bins	10 yrs	19,614	ea	\$ 907,327
	Organic rubbish bins	10 yrs	15,676	ea	\$ 635,824
Refuse	Big Belly bins	10 yrs	8	ea	\$ 163,664
	Park rubbish bins	10 yrs	181	ea	\$ 7,421
	Bus stop bins	10 yrs	45	ea	\$ 5,591
	Bin surrounds	15 yrs	343	ea	\$ 576,810
Total Refuse					\$3,048,146
Samiaa.	Cable line	15 to 100 yrs	24,906	m	\$ 869,923
Services	Pits & points	10 to 100 yrs	339	ea	\$ 831,629
Total Services					\$1,701,552
Signage Assorted signs		12 yrs	numerou	IS	\$ 79,976
Total Signage					\$ 79,976
Total Current Rep	placement Cost				\$9,452,925

- Current replacement value \$9,452,925
- Medium levels of confidence in the data captured
- Other asset renewals are calculated on the age of the asset and not physical condition
- Other assets are not condition assessed due to majority of assets being consumables and many located underground.
- Operating costs exclude the actual collection and disposal of rubbish
- Financial data and values obtained from AssetFinda reporting system as at January 2019. All figures exclude GST
- Due to changes in the Financial Management Regulation 17(A) certain assets under \$5,000 are no longer capitalised, therefore they will need to be replaced and maintained through operating budgets
- This includes assets such as ornamental lighting, bus stop seats, certain informative signage and dog bag dispensers.

Renewal Period

Backlog	\$ 105,768	(1.12%)
• 15 year renewal	\$5,870,650	(62.10%)
Beyond 2035	\$ 3,476,507	(36.78%)
Total Current Replacement Cost	\$9,452,925	
Renewal Budget		

Total Required Renewals (15 years)	\$8,125,234
Total IFP Renewal Budget (15 years)	\$5,036,000
Total Renewal Shortfall (15 years)	\$3.089.234

IFP Budgets 2019/20 to 2033/34

•	Operating & Maintenance	\$18,766,835

• New & Expansion Capital Works \$ 280,000

Beach Information Signs

In 2017/18 the City condensed all existing beach signage into the new wayfinding signs which provides information for beach, parking, animal regulations, directions to nearest public toilets and facilities.

Overview

BEN Signs

In 2017 the State Government introduced the new Beach Emergency Number (BEN) signs initiative. Each location has a unique code that police, ambulance and other emergency services can use to pinpoint the location of an emergency.

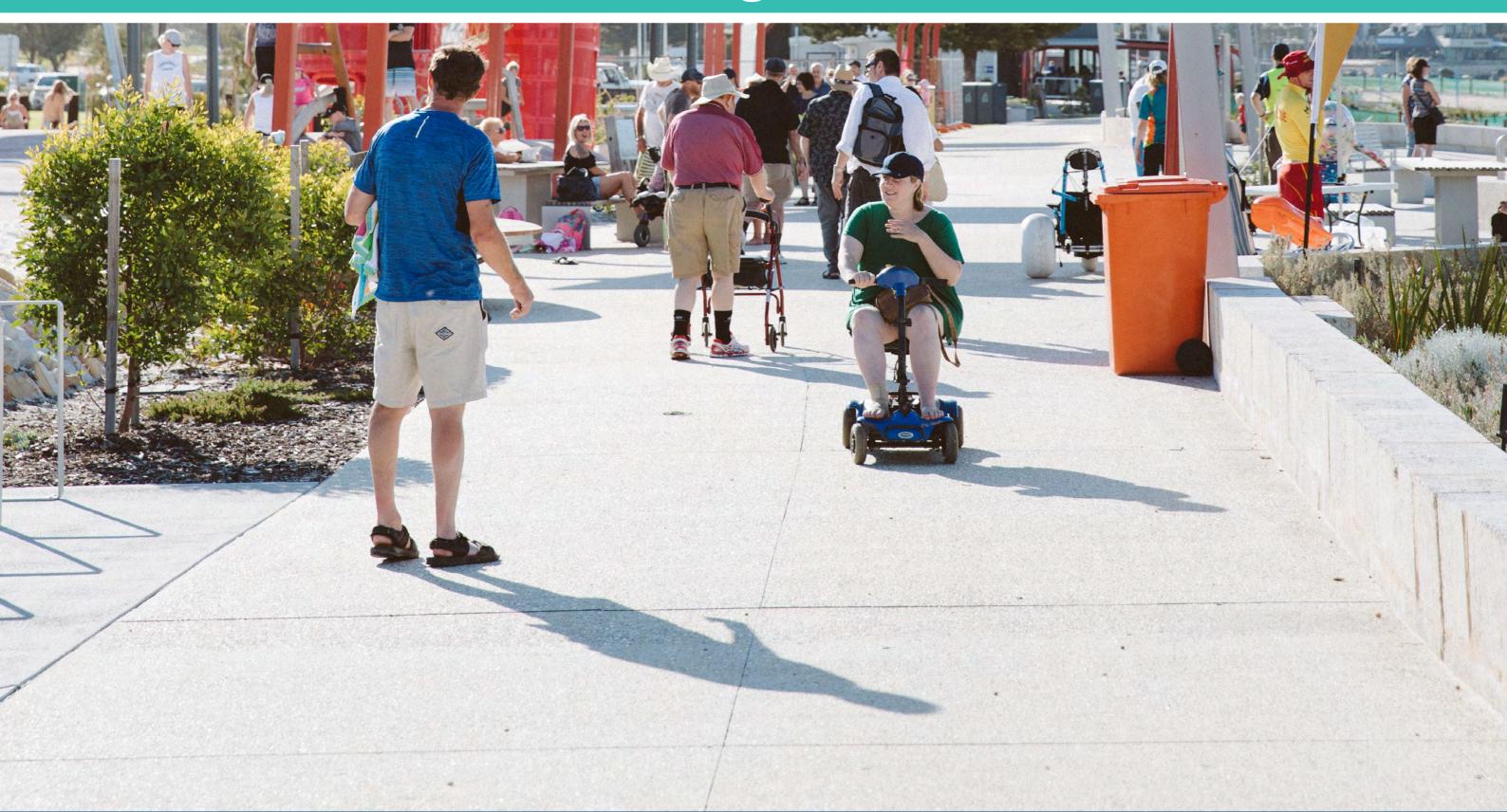
Since the commencement more than 500 BEN signs have been installed along the WA Coastline with 48 in Bunbury thus far.

* Total required renewals includes backlog, first and second renewals





Path Asset Management Plan 2019





Page 2

Asset Renewal

Replacing or refurbishing an existing asset with an asset of equivalent capacity or performance capability.

Asset Renewal Period

The estimated replacement period of the asset.

Condition Rating

An asset being physically inspected to determine its current state, classified using a score of 1-5.

Current Replacement Cost (CRC)

The cost required to replace the given asset in todays dollars. All dollar figures are ex GST.

Integrated Financial Plan (IFP)

The adopted Integrated Financial Plan 2019/20 to 2033/34 as at 28th May 2019.

Financial Data & Values

Obtained from AssetFinda reporting system as at January 2019.

IPWEA

The Institute of Public Works Engineering Australasia.

Maintenance

The reactive or planned work required to maintain the asset.

MARCIA

Most Accessible Regional City in Australia.

New & Expansion, Upgrade and Renewal Projects

Capital projects identified in the adopted Integrated Financial Plan 2019/20 to 2033/34.

Useful Life

The estimated life expectancy of an asset.



Paths



- Current replacement value of \$65,935,023
- Owns and maintains a path network of 4,823 individual assets which compromises of 218.19 kilometres of path & 2,441 pram ramps
- \$61,493,825 (93.26%) of the path network does not fall due for renewal until after 2035
- \$4,441,199 renewal required over the next 15 year period

1. Dual Use Path (DUP)

Allows both pedestrians and cyclists to travel within the same space

- > 2m wide
- Current replacement cost of \$58,302,811
- 186.14 kilometres of DUP paths
- 1,906 individual assets captured within the database
- High level of confidence in the data collected within this plan.

2. Pedestrian Only Paths (PED)

Dedicated solely for use by pedestrians

- < 2m wide
- Current replacement cost of \$6,533,339
- 32.05km of PED paths
- 476 individual assets captured within the database
- High level of confidence in the data collected within this plan.

3. Pram Ramps

Provides a continuous path of travel for pedestrians with mobility impairments or wheeled devices such as wheelchairs and prams. Kerb ramps also assist with defining the preferred crossing location for all path users

- Current replacement cots of \$1,098,873
- 2,441 individual assets captured within the database
- Medium level of confidence in the data collected within this plan.





Please Note: All City owned path assets have been collected and entered into the asset database.

Current Replacement Cost is based on current pricing schedules:

- City of Bunbury tendered capital works projects
- Rawlinson's Australian Construction Handbook 2016 Edition 34
- Unless otherwise specified all costs include supply & installation

Current Replacement Cost Breakdown

Asset Group	Material	Useful Life	Asset Count	CRC
	Asphalt	25 yrs	13.62 km	\$ 3,340,093
	Bituminous seal	20 yrs	0.36 km	\$ 89,035
	Brick paving	40 yrs	11.07 km	\$ 5,842,709
	Cement slabs*	35 yrs	0.12 km	\$ 49,491
Path	Decorative Paving	50 yrs	1.91 km	\$ 1,634,857
DUP	Exposed aggregate	50 yrs	0.82 km	\$ 513,820
	Gravel	10 yrs	0.15 km	\$ 19,076
	Insitu concrete	50 yrs	148.46 km	\$45,164,658
	Limestone	15 yrs	9.56 km	\$ 1,621,478
	Timber	20 yrs	0.07 km	\$ 27,594
Total DUP (1,906)			186.14 km	\$58,302,811
	Asphalt	25 yrs	0.65 km	\$ 100,704
	Bituminous seal	20 yrs	0.11 km	\$ 17,240
	Brick paving	40 yrs	0.83 km	\$ 192,553
Path	Cement slabs*	35 yrs	3.49 km	\$ 626,678
PED	Exposed aggregate	50 yrs	0.10 km	\$ 23,002
	Gravel	10 yrs	0.21 km	\$ 23,088
	Insitu concrete	50 yrs	26.52 km	\$ 5,520,363
	Timber	20 yrs	0.14 km	\$ 29,711
Total PED (47	6)		32.05 km	\$ 6,533,339
Pram Ramps	Insitu Concrete	50 yrs	2,441 each	\$ 1,098,873
Total				\$65,935,023



100	DUP	\$58,302,811	(88.42%)	186.14 km
	PED:	\$6,533,339	(9.91%)	32.05 km
	Pram Ramps:	\$1,098,873	(1.67%)	2,441 eac

Useful Life

Useful life is the period over which an asset is expected to be available for use.

The Path asset useful life has been determined using industry standards:

IPWEA - Renewal Planning, Valuation & Asset Management Plans
Practice Note 10.2, Section 3.4 Common Industry Asset Lives.
Many factors can affect an assets useful life including:

- Asset materials e.g. insitu concrete v brick paving
- Environment e.g. coastal v sheltered location
- Frequency of use
- Desired levels of service



81.83% of Path assets have a 50 year useful life with a value of \$53,955,573

Page 4

Current Replacement Cost and Useful Life



Cement Slab Paths

The City currently has 3.61 kilometres of cement slab footpaths, valued at \$676,169

Due to cement slab paths posing greater risk to path users, they will not be replaced like for like, instead all future renewals will be insitu concrete.

Asset Age Overview

Asset Age indicates the count of assets that were installed in a particular period.

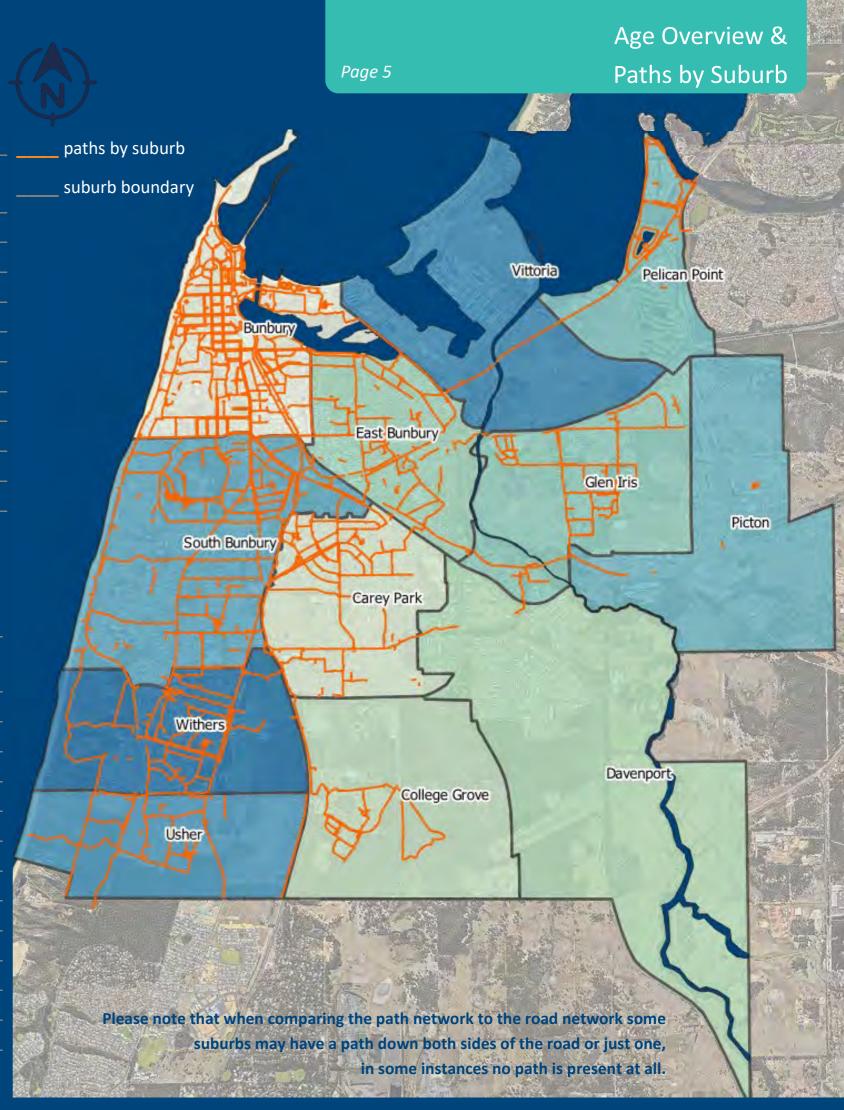
Path installation dates have been compiled from various sources that include Works & Services historical data, tendered works, as constructed drawings, financial records and aerial imagery.

Year	Dl	JP Path	PE	D Path	Prar	n Ramp
Acquired	(km)	(CRC)	(km)	(CRC)	(each)	(CRC)
1970-1974	0.11	\$41,769	0.16	\$25,257	235	\$105,750
1975-1979	0	\$0.00	0.06	\$10,486	0	\$0.00
1980-1984	1.36	\$432,198	0.30	\$63,752	3	\$1,350
1985-1989	7.90	\$2,654,593	5.16	\$972,999	0	\$0.00
1990-1994	30.98	\$8,707,064	3.11	\$654,540	223	\$100,350
1995-1999	28.26	\$8,251,372	3.45	\$698,425	12	\$5,400
2000-2004	46.23	\$15,094,365	10.09	\$2,042,757	945	\$425,250
2005-2009	33.08	\$9,664,788	6.30	\$1,355,903	291	\$130,950
2010-2014	16.25	\$5,365,371	1.88	\$387,200	103	\$46,350
2015-2018	21.97	\$8,091,291	1.54	\$322,020	629	\$283,473
Total	186.14	\$58,302,811	32.05	\$6,533,339	2,441	\$1,098,873

Path Network by Suburb

The total length of path network per suburb (road length total excludes airport of 6.22km)

Suburb	Road Length (km)	Overall Path Network (km)	DUP Path (km)	PED Path (km)	Pram Ramps (each)
Bunbury & CBD	48.90	99.74	86.87	12.87	719
Carey Park	41.98	10.78	9.40	1.38	339
College Grove	11.44	1.80	1.65	0.15	77
Davenport	19.40	0.05	0.00	0.05	7
East Bunbury	37.68	20.17	16.98	3.19	257
Glen Iris	24.93	8.28	6.03	2.25	165
Pelican Point	10.77	6.78	4.53	2.25	27
Picton	5.34	0.16	0.16	0.00	27
South Bunbury	68.72	41.02	35.33	5.69	547
Usher	14.59	9.27	8.06	1.21	92
Vittoria	5.63	1.06	0.39	0.67	2
Withers	31.34	19.08	16.74	2.34	182
Total	320.72	218.19	186.14	32.05	2,441



Asset Condition Overview

"The objective of a condition assessment is to provide sufficient information on asset condition to allow informed strategic asset planning and management decisions to be made" [IPWEA Practice Note 3].

Path assets have been condition rated based on IPWEA—Condition Assessment & Asset Performance Guidelines Practice Note 1 v2 2014 Footpaths & Cycleways as per the stated parameters in the adjacent table.

The condition rating is based on 100% of Path assets that have been visually inspected since 2017.

Asset Group 'pram ramps' are condition rated as part of the path network and not as an individual component.



91.99% (3.49 km) of the 'very poor' condition rated PED assets are cement slab paths.





	Condition
6	Assessment

Condition	Parameters	Image
Very Good	Footpath in 'as new' condition with no need for any intervention other than minor maintenance prior to next inspection period.	
Good	Minor defects (up to 10%) but not overly significant in nature and extent. Generally able to be addressed through ordinary routine maintenance activities over the coming period prior to next inspection.	
Fair	Moderate defects (up to 20%) Footpath requires significant maintenance either by way of immediate intervention or planned maintenance schedules over the coming period prior to the next inspection.	
Poor	Significant defects (up to 50%) Footpath requires significant renewal / rehabilitation of sections of segments over the coming period prior to the next inspection.	
Very Poor	Severe defects (> 50%) both in terms of severity and extent. Generally, footpath in need of major work by way of replacement of full segment as part of a capital works program.	

Page

Renewal Overview

Asset renewal is the replacement or refurbishment of an existing asset to return it to its original performance and service level.

Renewal planning is essential to ensure that adequate funding is available and assets are replaced at an optimum time thus maintaining the desired service levels.

Previous asset management plans have used the base life and installation year methodology to determine the renewal period. Due to a thorough condition assessment of the path network since 2017, the City is confident to base renewals on asset condition opposed to age and suggests that this is a more accurate measure in determining path replacement.

Renewal Period

•	Total backlog	\$ 759,288	(1.15%)
•	Total 15 year renewal	\$ 3,681,910	(5.58%)
•	Total beyond 2035	\$61,493,825	(93.27%)

Renewal Budget & Future Reserve Funds

Total projected renewals 15 years	\$ 4,441,198
Total IFP renewal budget 15 years	\$ 7,075,000
Total renewal surplus funds 15 years	\$ 2,633,802
Total renewal surplus funds per annum	\$ 175,586

Whilst it appears that we are currently over servicing path renewals by \$2,633,802 over the 15 year period it should be noted that \$61,493,825 (93.27%)

of the path network does not fall due for renewal until after 2035.

This is mostly due to the majority of path assets (81.83%) having a long useful life expectancy of 50 years.

The beyond 2035 figures are based on first renewal only and do not take into account subsequent replacements.

Beyond 2035 Breakdown

Renewal Year	DUP & PED	Pram Ramp	CRC
2035 to 2044	25.93 km	128 each	\$ 7,025,678
2045 to 2054	133.25km	956 each	\$41,409,905
2055 to 2064	2.21 km	0	\$ 1,399,575
2065 to 2074	35.24km	1,339 each	\$11,658,667
Total	196.63 km	2,423 each	\$61,493,825

Page 7 Renewals

This plan acknowledges the renewal of existing assets only and does not pre-empt the expenditure or required budget for renewing and upgrading assets within future projects. New assets will be collected and entered into the database upon completion of works where they will form part of future Asset Management Plans.



Backlog:

assets that fall due for renewal prior to 2019 but have not yet been replaced or refurbished.

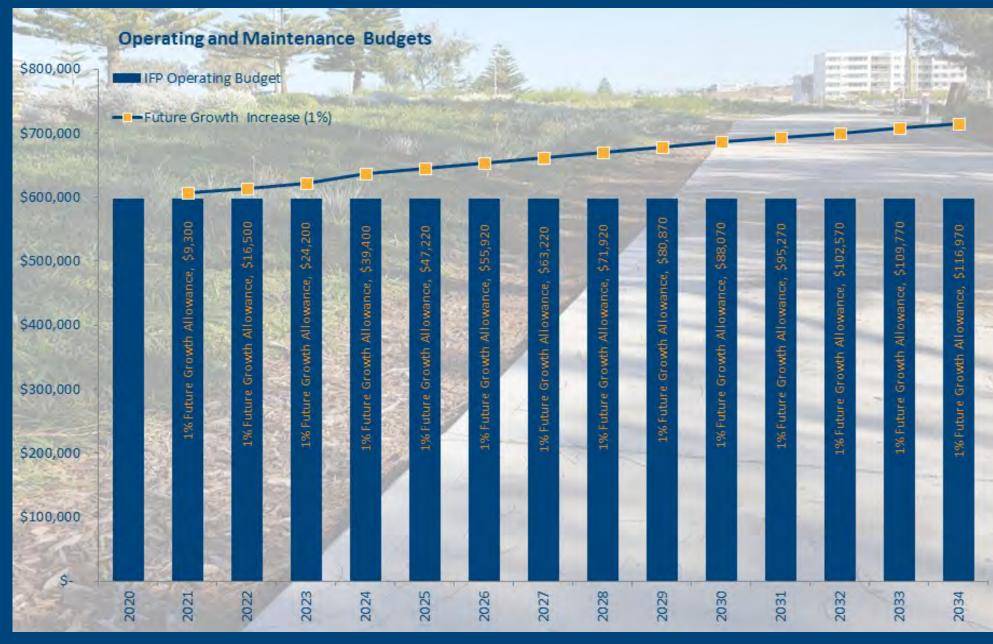
spreading the backlog of asset renewals over the 15 year period to deliver a consistent

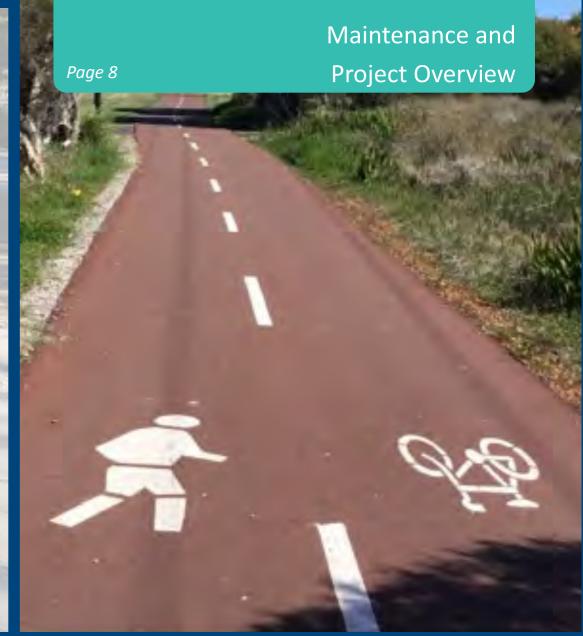
renewals program.

Backlog Dispersed:

Renewal: an asset due for renewal for the first time within the 15 year period.

IFP Budget: projects that have been identified and included in the Integrated Financial Plan.





Maintenance Overview

- New and expansion works refer to the creation of assets that did not previously exist and addresses growth, social or environmental needs e.g. Koombana Foreshore Development.
- Capital upgrade works refer to the improvement and expansion of an existing asset capacity and functionality e.g. upgrading from PED path to DUP path.
- Path maintenance is the repair and upkeep of assets ensuring safety, functionality and operational capacity e.g. pressure cleaning pavements and responding to ad hoc defects.

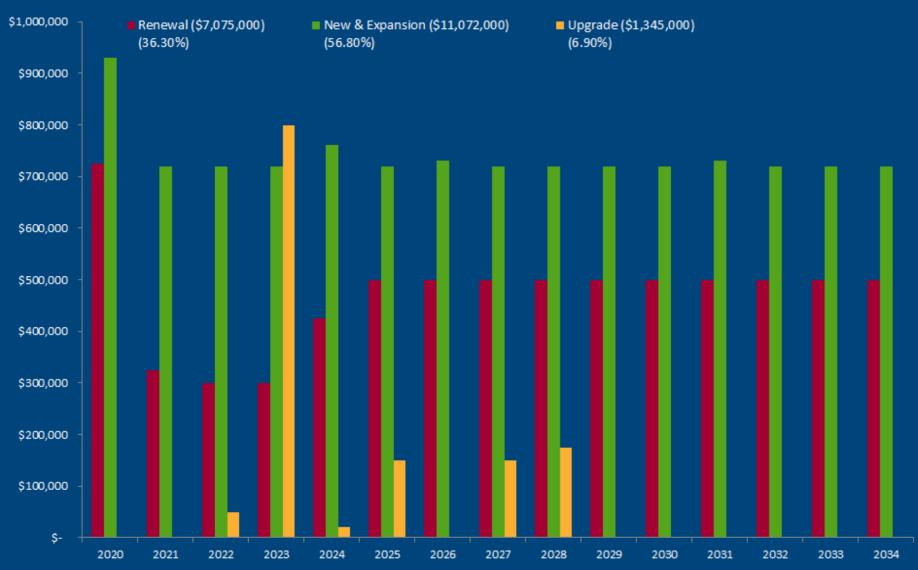
The draft IFP has acknowledged an increase of 2 & 3% for operating expenditure for new and upgrade projects (\$12,417,000 over the 15 years). As routine cleaning is minimal and required maintenance on a new path is negligible, our modelling is based on 1%.

In line with the above graph using the 1% increase it has been identified that \$921,200 is required over and above the existing maintenance and operating budgets for the next 15 year period.

New & Expansion and Capital Upgrade Project Overview

Year	Project ID	Description	Budget	
2020/26 /31	PR-4462	Expand Path Network in Bunbury Wildlife Park	\$	30,000
2024	PR-3434	Construct new footpath at Bob Howell's Playground	\$	42,000
2020-2034	PR-1486	Expand Cycleways (Implement Bunbury Bike Plan)	\$ 3,	000,000
2020-2034	PR-1305	Expand Path Network	\$ 7,	600,000
2020	PR-4724	Construct Forrest Highway shared Path	\$	400,000
2022	PR-3579	Widen & renew Footpath - Strickland St and George St	\$	50,000
2023	PR-1263	Upgrade Paving - Stephen St (Victoria to Arthur)	\$	250,000
2023	PR-1261	Upgrade Streetscape - Victoria St (Carey to Wollaston)	\$	550,000
2024	PR-3200	Relocate Kerbing - Stingray Pass	\$	20,000
2025	PR-1276	Upgrade Paving - Victoria St (Ocean to Blair)	\$	150,000
2027	PR-1274	Upgrade Streetscape - Wittenoom St (Stirling to Carey)	\$	150,000
2028	PR-1264	Upgrade Paving - Wellington St (Victoria to Haley)	\$	175,000
Total			\$12,	417,000

Future Growth Impact on Operating Costs





In line with Council Decision 98/18 the City has identified the need to add to the existing path network and improve linkages between suburbs and major neighbourhood centres.

As per the above graph, The City is allocating more funding on New & Expansion projects—\$3,997,000 over renewal spending.

In conjunction with this, modelling shows that by the City building 2km of new paths each year over the 15 year period will add an additional \$8,587,800 to the already required beyond 2035 renewal budget of \$61,493,825.

Future Replacement Factors

- Proximity to higher risk areas:
 - schools
 - aged care facilities
- hospitals and medical centres
- commercial areas
- public transport interchange areas
- Replacing PED with DUP paths (not like for like)
- Increasing the path network into and around the Central Business District (CBD)

Future Subdivisions

Contributed paths are those which are added to the network as part of new subdivisions, they are then gifted by the developer to the City e.g. Riverlea Estate (currently under development).

Future contributed paths may include new estates such as:

- Flynnwood—Usher
- Tuart Brook—Usher
- Moorlands—Glen Iris

Strategic plans driving future projects

- 1. Strategic Community Plan 2018 –2028
- 2. Disability & Access Inclusion Plan and MARCIA
- 3. TPS8—Town Planning Scheme 8
- 4. Path Levels of Service (to be completed)
- 5. Public Open Space Strategy—Parks & Playgrounds (in development)
- 6. Public Health Plan (in development)

Disability Access and Inclusion

In-line with the City's Disability Access and Inclusion Plan 2017-2022 and Strategic Community Plan 2018—2028 to establish Bunbury as the most accessible regional city in Australia, the City is now looking to retrofit existing pram ramps, install new and overhaul existing paths that currently make access a problem.

The City has already completed several projects to address the above aspirations:

2018: Construct accessible ramp at Back Beach Surf Club

2019: Install new path at Birch Street to Ocean Drive

2019: Expand existing path for access to Bellemore Park at College Row

2019: Expand existing path to connect Petherick Street to Bunbury Catholic College

Asset Ratio Evaluation

- As per the Asset Management Guidelines for Western Australian Governments, asset management programs should include evaluation mechanisms to measure their effectiveness against the targets and outcomes set out in Asset Management Strategies and Plans.
- As per the Local Government (Financial Management) Regulations 1996—Regulation 50 financial ratios are to be included in the Annual Financial Report.
- Ratios are calculated on the figures over the 15 year period (2019/20 to 2033/34).

Asset Consumption Ratio (ACR)

ich depreciated assets have been eir written down value to their - 70%	
7%	
< 50% ratio indicates a rapid deterioration of the asset base.	
ratio indicates an adequate able level of service across asset gories.	
% ratio indicates a possible over sting in the asset base.	
ratio demonstrates that the City's paths t useful life is reasonable and that assets depreciating at an acceptable rate.	

depreciated replacement cost of assets current replacement cost of depreciable assets

Asset Sustainability Ratio (ASR)

compared to the amount consumed (depreciated).			
Target	90% - 110%		
Asset Replacement Rate	33.34%		
Measurement Note	< 90% ratio indicates possible under investing in renewal and replacement of assets.		
	>110% indicates possible over investing in renewal and replacement of assets.		
Therefore	Whilst the ratio indicates underspending on path renewal in the next 15 years, it needs to be understood that majority of path assets (81.83%) have a long useful life of 50 years, so only a limited number of assets require renewal over the next 15 years.		
capital renewal and replacement expenditure			

Measures the extent to which assets are being renewed / replaced



depreciation expense

Asset Renewal Funding Ratio (ARFR)

This ratio provides an indication of the City's financial capacity to	
fund required Path asset renewals.	

Target	95% - 105%
Asset Replacement Rate	159.30%
Measurement Note	> 95% ratio indicates that the IFP makes adequate provisions to maintain existing levels of service and renew or replace assets.
	< 75% ratio indicates possible inadequate provision for future renewal or replacement of the asset base.
Therefore	Whilst the current IFP budget indicates over servicing for renewals in the next 15 years, this is not a true reflection as the majority of assets (93.26%) do not fall due for replacement until after 2035

net present value of planned capital renewal over 15 years net present value of required expenditure over 15 years



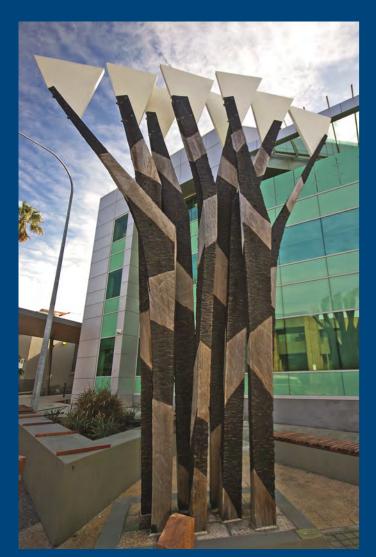




Public Art Asset Management Plan 2019



- Owns and maintains a portfolio of 62 individual pieces of Public Art
- Current replacement value of \$5,918,391
- Public Art was externally valued in April 2018
- Public Art is captured under Asset Group 'Structures' however for ease of financial reporting these two classes have been separated into two individual asset management summaries
- Public art is not depreciated nor is it replaced like for like, therefore there is no renewal program or ratio evaluation
- \$450,000 committed to maintain public art over the 15 year period
- \$350,000 allocated to New & Expansion Works over 2019/20—2033/34
- Financial data and values obtained from AssetFinda reporting system as at January 2019. All figures exclude GST
- Given the investment in Public Art the City should consider increasing the annual maintenance budget (\$30,000 per year) to be able to preserve these assets.



'Forrest Trees'

Original Year of Install: 1979

2018 Valuation: \$1,500,000



'Surveying the Team'

Original Year of Install: Unknown

2018 Valuation: \$85,000



'Navigators'

Original Year of Install: 2000

2018 Valuation: \$900,000



'Water Sphere'

Original Year of Install: 2006

2018 Valuation: \$260,000





Road Asset Management Plan 2019



Page 2 **Glossary of Terms** Page 2 **Asset Renewal** Replacing or refurbishing an existing asset with an asset of equivalent capacity or performance capability. **Asset Renewal Period** The estimated replacement period of the asset. **Condition Rating** An asset being physically inspected to determine its current state, classified using a score of 1-5. **Current Replacement Cost (CRC)** The cost required to replace the given asset in todays dollars. All dollar figures are ex GST. **Integrated Financial Plan (IFP)** The adopted Integrated Financial Plan 2019/20 to 2033/34 as at 28th May 2019. **Financial Data & Values** Obtained from AssetFinda reporting system as at January 2019. **IPWEA** The Institute of Public Works Engineering Australasia. **LATM** Local Area Traffic Management Devices. Maintenance The reactive or planned work required to maintain the asset. **MARCIA** Most Accessible Regional City in Australia. **New & Expansion, Upgrade and Renewal Projects** Capital projects identified in the adopted Integrated Financial Plan 2019/20 to 2033/34. **Useful Life** The estimated life expectancy of an asset.



1. Top Surface data is included in this plan

The uppermost part of the road which exists to sustain vehicle traffic, protect the pavement from abrasion and to minimise the entry of water.

- Road top surface: 326.94 km valued at \$109,075,896
- Carpark top surface: 147,580.48 m2 valued at \$6,347,436
- High level of confidence in the data within this plan



2. Pavement (sub base) data is included in this plan

A layer of crushed rock or similar material placed above the subgrade to support and form a surface for vehicle traffic.

- Road pavement: 327.13 km valued at \$89,724,897
- Carpark pavement: 147,580.48 m2 valued at \$5,017,736
- Medium to high level of confidence in the data within this plan



3. Kerbing data is included in this plan

A concrete structure typically located at the edge of a road designed to act as a barrier and direct surface water to stormwater infrastructure.

- Road kerbing: 584.49 km valued at \$31,270,162
- Carpark kerbing: 15.42 km valued at \$824,800
- Medium level of confidence in the data



4. Sub grade (sand) data is <u>not</u> reflected in this plan

The formed ground material underneath a constructed road.

- Road sub grade: 328.18 km valued at \$16,808,071
- Carpark sub grade: 147,633.98 m2 valued at \$936,069
- Medium to high level of confidence in the data within this plan



5. LATM Devices data is <u>not</u> reflected in this plan

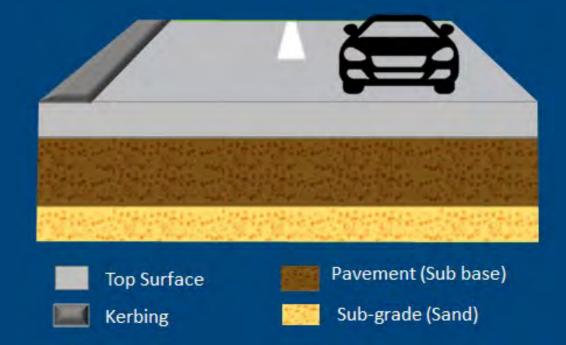
The primary aim of LATM devices is to moderate traffic speeds in order to create safer local streets. LATM devices include speed cushions and humps, anti skid treatments, bollards and chicanes.

- Small percentage of LATM devices captured within the database
- Propose to capture existing assets within subsequent plans

Roads
Page 3
Overview

Layers of a Road

Curi	rent Replacement Cost	\$242.260.927
•	Kerbing	\$ 32,094,962
•	Pavement	\$ 94,742,633
•	Top surface	\$115,423,332



Data Collection

The road network is collected by the following classifications;







Carparks

\$11,716,322

Airpo

Airport \$7,042,676

Main Roads Western Australia (Main Roads) in conjunction with local governments manage Western Australia's road network.

The overall Western Australian Road network covers approximately 149,000 kilometres of state and local government roads. Road hierarchy defines the use of the road and is categorised as:

1. Primary Distributor

Managed by Main Roads.

Provide for major regional and inter-regional traffic movement and carry large volumes of generally fast moving traffic. Some are strategic freight routes and all are state roads.

2. Regional Distributor

Managed by local government.

Roads that are not Primary Distributors, but which link significant destinations and are designed for efficient movement of people and goods within and beyond regional areas. NB: There are no Regional Distributor roads within the City of Bunbury boundary.

3. District Distributors A & B

Managed by local government.

Distributors A & B roads run between built up area land use cells and generally not through them, forming a grid which would ideally space them 1.5km apart.

Distributor A: 17.11km (5.23%)

Carries traffic between industrial, commercial and residential areas and generally connect to larger primary distributors. These are likely to be truck routes and provide only limited access to adjoining property.

Distributor B: 9.18 km (2.81%)

Performs a similar function to type A Distributors, but with reduced capacity due to flow restrictions caused by frequent property access and roadside parking in many instances. These are often older roads with a traffic demand in excess of that originally intended.

4. Local Distributor: 31.82 km (9.73%)

Managed by local government.

Carry traffic within a cell and link distributors at the boundary to access roads.

These roads should accommodate buses, but discourage trucks.

5. Access Road: 262.61 km (80.32%)

Managed by local government.

Provides access to abutting properties with safety aspects having priority over the vehicle movement function. In urban areas, these roads are bicycle and pedestrian friendly.

Note 1: The airport roads and runways 6.22km (1.90%) do not form part of the Main Roads WA hierarchy but are owned and managed by the City of Bunbury.

Note 2: As part of the asset improvement strategy all road hierarchies were reviewed in March 2019



Road Network

- 830 individual roads
- On-road bike paths are included in the top surface road network data
- **Excludes Airport data**



Road network consists of:

Top Surface: 320.72 km valued at \$104,983,016

• Pavement: 320.91 km valued at \$87,248,751

• Kerbing: 584.49 km valued at \$ 31,270,162

Road network total value \$223,501,929

Carparks off street

- 57 Individual carparks
- 17 owned and operated by the City of Bunbury
- 40 located on Crown land but maintained by the City

Excludes Airport data



Carparks consist of:

• Top Surface: 141,430 m2 valued at \$6,082,903

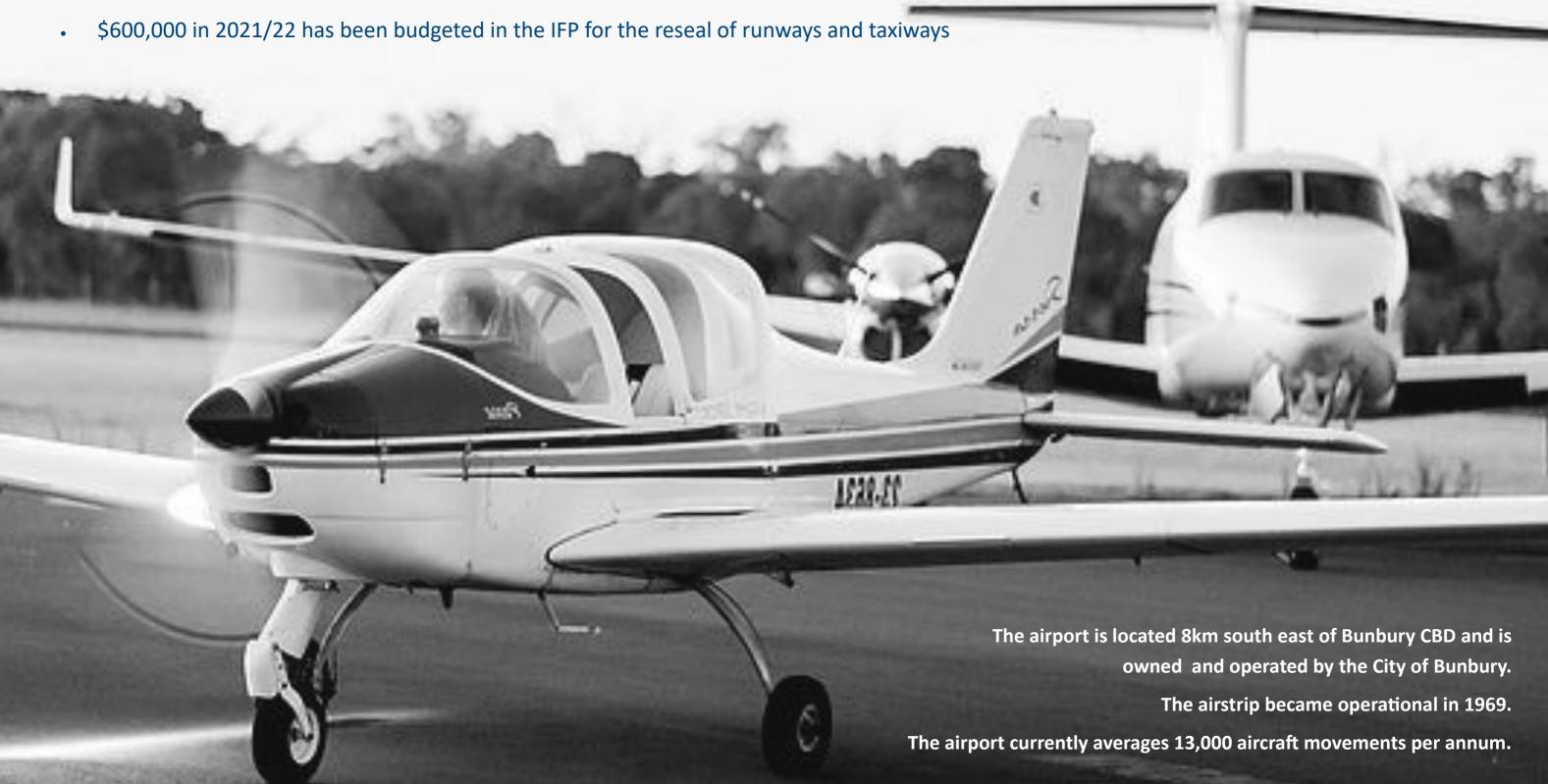
• Pavement: 141,430 m2 valued at \$4,808,619

Kerbing: 15.42 km valued at \$824,800

Carpark total value of \$11,716,322

Airport

- Current replacement value of \$7,042,676 for airport roads, runways, plane and vehicle parking (includes pavement and top surface assets)
- Due to low confidence in road measurements (length and width) and the importance of the airport infrastructure to the City of Bunbury, it is proposed that an individual asset management plan be prepared in 2019/20
- The proposed plan will identify all Airport assets which includes lighting, fencing, building, roads and runways
- This gives the City the opportunity to refine the existing data, improve accuracy and ensure all assets have been captured



Useful Life, Data Overview & Suburb Comparison

Page 7

Useful life is the period over which an asset is expected to be available for use.

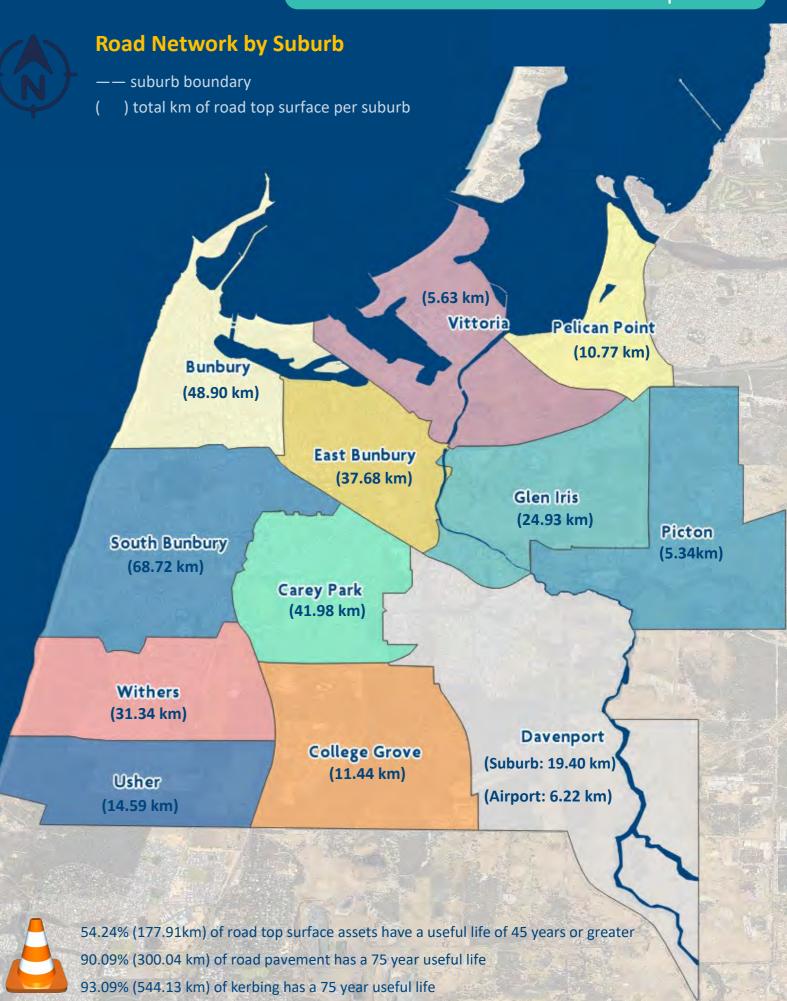
The Road asset useful life has been determined using industry standards:

(i) Main Roads WA Road Hierarchy; classification that is applied to each road combined with the road material will determine the expected useful life of the asset.

Example: an asphalt Distributor A road has a 25 year useful life opposed to an asphalt Access Road that has a 45 year useful life.

Road Data Overview

Category	Asset	Road	Material	Useful	Length	&	CRC
	Group	Hierarchy		Life (yrs)	Measu	re	
			Asphalt	45	175.73	km	\$ 55,477,07
			Brick paving	50	2.15	km	\$ 977,36
		Access Road	Concrete	70	0.03	km	\$ 24,47
			Chip seal	20	84.7	km	\$ 26,355,19
	Тор	Local	Asphalt	30	25.07	km	\$ 9,439,70
	Surface	Distributor	Chip seal	20	6.75	km	\$ 2,513,84
		Distributor	Asphalt	25	23.34	km	\$ 9,095,45
Road		A & B	Chip seal	20	2.95	km	\$ 1,099,89
			Asphalt	30	4.05	km	\$ 3,315,99
		Airport	Chip seal	20	2.17	km	\$ 776,89
		Not applicable	Concrete	45	0.24	km	\$ 12,18
		Not applicable	Crushed gravel	50-75	320.67	km	\$ 87,236,57
	Pavement		Concrete	45	2.43	km	\$ 107,13
		Airport	Crushed gravel	75	3.79	km	\$ 2,369,03
	Kerbing	Not applicable	Concrete	50-75	584.49	km	\$ 31,270,16
	Top Surface	Not applicable	Asphalt	30	141,430	m2	\$ 6,082,90
	Pavement	Not applicable	Crushed gravel	75	141,430	m2	\$ 4,808,61
Carpark	Kerbing	Not applicable	Concrete	75	15.42	km	\$ 824,80
	Top Surface	Airport	Asphalt	30	6,150	m2	\$ 264,53
	Pavement	Airport	Crushed gravel	75	6,150	m2	\$ 209,11



Condition Parameters **Image** Asset Very Structural: Sound physical condition. Condition Page 8 Good Insignificant deterioration. Asset likely to perform adequately **Condition Rating** without major works for 20 years or more. Serviceability: No or insignificant surface defects apparent. "The objective of a condition assessment is to provide sufficient information on asset condition Example: Jeffrey Road to allow informed strategic asset planning and management decisions to be made". [IPWEA] Routine maintenance only required. Road assets have been condition rated based on IPWEA Condition Assessment & Asset Good Structural: Acceptable physical condition: minor deterioration / minor Performance Guidelines: defects evident. Practice Note 9 2015 Road Pavements Serviceability: Minor increase in pavement roughness counts. Practice Note 2 V3 2016 Kerb & Channel Some minor surface defects apparent. Negligible short term failure risk but potential for deterioration in As per the parameters in the adjacent table. long-term (15 plus years). The below condition rating graph is based on 326.94km of road top surface assets that were Example: Dodson Road externally assessed by Talis Consultants over the 18/19 period. Only minor work required (if any). 295.85km (90.49%) of top surface assets are in very good to average Average Structural: Moderate to significant deterioration evident. Minor condition and do not require work within the long term. components or isolated sections of the asset need replacement or repair now but not affecting short term structural integrity. Road Condition - top surface by hierarchy Serviceability: Moderate increase of pavement roughness but asset (based on 326.94 km of road top surface assets condition rated in April 2019) still functions safely at adequate level of service. 100% Failure unlikely within next 10 years but further deterioration 95% likely and major replacement likely within next 5 to 15 years. 90% Example: Carob Street 85% 80% Work required but asset is still serviceable. 75% Poor Structural: Serious deterioration and significant defects evident 70% 65% affecting structural integrity. 60% Serviceability: Significant increase in pavement roughness. 55% Substantial work required in short term to keep asset serviceable. 50% Failure likely in short to medium term. Likely need to replace most or 45% all of asset within short term (possibly next 2 years). 40% 35% **Example: Rose Street** 30% No immediate risk to health or safety but works required within 25% 2 to 5 years to ensure asset remains safe. 20% 15% Structural: Failed or failure imminent. Immediate need to replace Very 10% most or all of asset. Poor 5% Serviceability: Large increase in pavement roughness and surface Local Distributor Access Airport Distributor A Distributor B defects. Increase in road user costs and a deterioration in the safe (31.82 km) (262.61 km) (6.22 km) (17.11 km) (9.18 km) performance of the asset. Example: Carey Street ■ Very Good Good Average Poor ■ Very Poor Major work or replacement required urgently.

Regional Road Group Program (RRG)

- 10 Regional Roads Groups (RRG) in WA, established under the State Road Funds to Local Government Agreement which is overseen by a State Advisory Committee (SAC).
- The program ensures that road funding decisions maximise community benefits and preserve and improve the road system across Western Australia.

Significant Roads

- Funded under the Regional Road Group Applications for the South West.
- Significant Roads are those that do or will, provide a positive contribution to the economic and/or social well being of the region and Western Australia as a whole.
- Only roads managed by Council that are accepted as a 'significant road' in the 2030 Road Report are eligible for road project grant funding under the agreement.
- Currently only 15.70% of the City's Road Network is accepted as a Significant Road.

State Black Spot Program & Federal Black Spot Program (Blackspot)

• Targets road locations where crashes occur by funding measures such as traffic signals and roundabouts at dangerous locations, thereby reducing the risk of crashes.

Roads to Recovery Program (R2R)

• Supports the maintenance of the nation's local road infrastructure asset, facilitating greater access, improved safety, economic and social outcomes.

City Contribution (CoB)

• The City's allocated budget to fund / co-fund projects.



Top Five Significant Roads

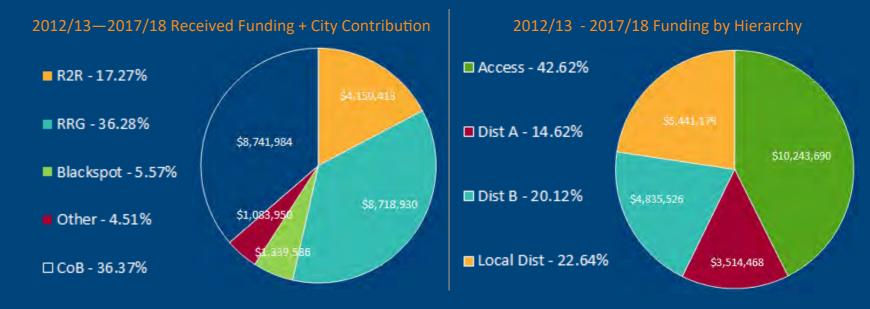
1. Blair Street	7.80 km	\$5,969,410	Distributor A
2. Ocean Drive	8.44 km	\$5,604,469	Local distributor
3. Parade Road	5.68km	\$4,330,780	Local distributor
4. Koombana Drive	3.93 km	\$4,203,983	Distributor B
5. Spencer Street	2.97 km	\$3,214,433	Local distributor

Road Funding Opportunities

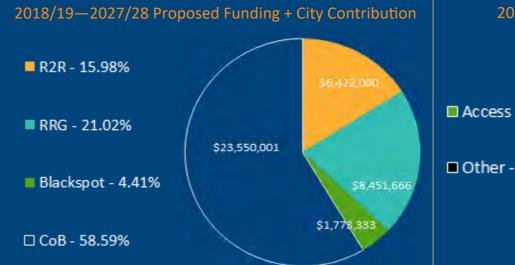
Page 9

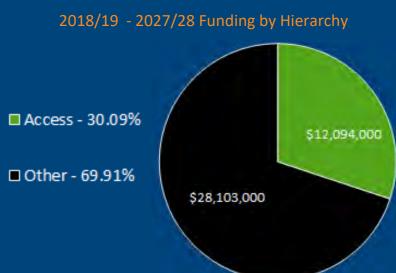
Ending Analysis

Analysis of Road expenditure over the last six years (2012/13—2017/18) indicates expenditure of \$24,034,863 on road renewal, upgrade and expansion works.



Future funding analysis for the coming ten year period (2018/19—2027/28) indicates expenditure of \$40,197,000 on road renewals, upgrade and expansion works.







Asset renewal is the replacement or refurbishment of an existing asset to return it to its original performance and service level.

Renewal planning is essential to ensure that adequate funding is available and assets are replaced at an optimum time thus maintaining the desired levels of service.

Previous asset management plans have used the base life and installation year methodology to determine the renewal period, however due to a thorough condition assessment of the road top surface network in 2019, The City is confident to base these renewals on asset condition opposed to age.

Renewal Period

 Backlog: 	\$ 2,946,320 (1.22 %
------------------------------	----------------------

• 15 year renewal: \$ 47,105,125 (19.44%)

• Beyond 2035: \$192,209,482 (79.34%)

Renewal Budget & Future Reserve Funds

Total projected renewals (15 yrs) \$50,051,445

Total IFP renewal budget (15 yrs) \$41,853,000

Total renewal shortfall (15 yrs) \$ 8,198,445

Total renewal shortfall (per annum) \$ 546,563

Top surface road materials such as 1 & 2 coat chip seal will not be renewed like for like, instead these assets will be replaced with asphalt. The Airport chip seal surfaces will be retained as is.

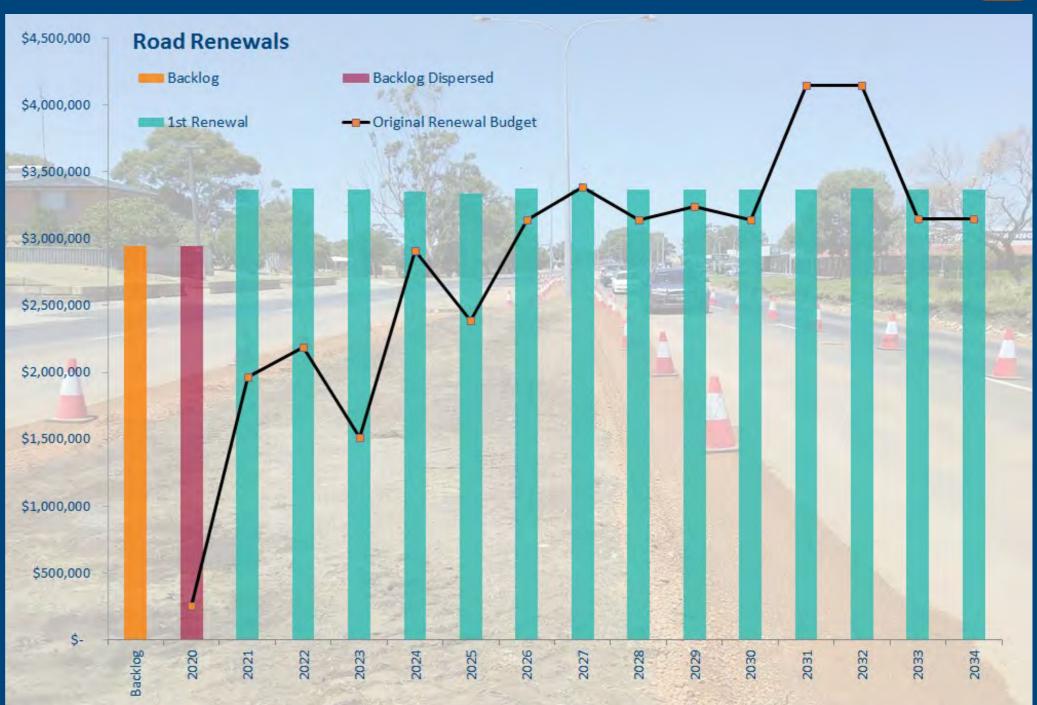
Beyond 2035 Breakdown

Year	CRC	CRC %	km	m2
2035-2044	\$ 58,941,804	30.67%	253.85	50,350
2045-2054	\$ 66,206,795	34.45%	351.37	72,316
2055-2064	\$ 22,386,650	11.65%	176.39	11,883
2065-2074	\$ 26,063,014	13.56%	192.80	45,587
2075-2084	\$ 13,988,208	7.28%	104.12	29,155
2085-2094	\$ 4,623,012	2.41%	17.85	38,644
Total	\$192,209,482	100%	1,096.38	248,934

Page 10 Renewals

As well as the budget indicating a shortfall of \$8,198,445 over the 15 year period, it should be noted that 79.34% of the road network does not fall due for renewal until after 2035. This is mostly due to the majority of road assets having a long useful life expectancy





Upgrade Funds

Whilst there is a shortfall of \$8,198,445 in road renewals, it must be acknowledged that the City allocates a further \$25M in expenditure for road upgrade projects.

A portion of these jobs may renew existing assets however the intent behind them is not road renewal.

IFP Budget
projects that have
been identified
and
included in the
Integrated
Financial Plan

Backlog
top surface
road assets with
a condition
rating of
very poor

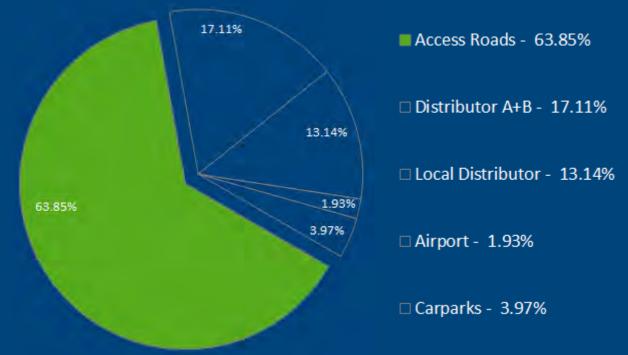
based on very poor asset condition, these assets are replaced first as priority

an asset due for renewal for the first time within the 15 year period

Renewal—Access roads

Approximately 2/3 of the renewal budget should be spent on renewing Access Roads however, projects identified in the current IFP do not reflect this requirement.

This is due to external funds and matching funding requirements being predominately allocated to 'significant roads' which does not include Access Roads.





Current replacement costs indicate that Access Roads make up 63.85% (\$31,956,180) of the City's required renewals over the 15 year period. (\$50,051,445).

Capital Upgrade

Capital upgrade is the improvement and expansion of an existing asset capacity and functionality.

As per the adopted IFP the City has budgeted \$25,342,000 for upgrade projects—which does not form part of the renewal shortfall.

We acknowledge that upgrade money is not based on the condition of the road asset but is driven by factors including:

- Road reconfiguration and geometry e.g. address sight distances
- New development increasing the traffic volume e.g. Vittoria Rd
- Improving traffic flow e.g.. slip lanes and roundabouts
- Crash statistics (Blackspot) e.g. locations of accidents and or injury
- Improvements to road for pedestrian and cyclist use e.g. Parade Rd
- Introducing traffic calming e.g. Moore Street

The City of Bunbury funds approximately 66.49% of all Upgrade projects with Regional Road Group contributing 25.07%. The remaining funding (8.44%) coming from various external sources.

Please note: Upgrade projects listed are as per the IFP (28/05/2019) however due to external funding are subject to variation, longer term projects are based on assumed levels of funding.

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Access Road Renewals & Capital Upgrade

Capital Upgrade Projects

Year	Project	Description	Вι	udget
2020-2021	PR-1103	Realign & widen Ocean Dr	\$	1,500,000
2020-2021	PR-3577	Widen Albert Rd	\$	60,000
2020-2022	PR-1212	Improve traffic configuration	\$	960,000
2020	PR-1214	Upgrade kerbing and profile Victoria St	\$	200,000
2020-2021	PR-1188	Reconstruct & widen Estuary Dr	\$	1,500,000
2021	PR-4373	Realign & widen Koombana Dr East	\$	1,100,000
2021	PR-4378	Upgrade roundabout Brittain Rd	\$	95,000
2021-2022	PR-3449	Upgrade & construct slip lane Forrest Ave	\$	1,200,000
2021-2022	PR-1224	Reconstruct & widen Vittoria Rd	\$	200,000
2021	PR-3700	Reseal & upgrade Harris Rd	\$	300,000
2021-2022	PR-1201	Modify intersection & install traffic control signals	\$	1,500,000
2022	PR-1216	Upgrade intersection Parade Rd & Westwood St	\$	150,000
2022-2023	PR-3670	Upgrade Spencer & Arthur St	\$	1,200,000
2022-2023	PR-2371	Modify intersection Haley St & Carmody St	\$	1,200,000
2022	PR-1234	Design roundabout Vittoria Rd & Erica Ent	\$	30,000
2023	PR-1230	Improve Intersection Washington Ave	\$	80,000
2023	PR-3741	Widen Parade Rd	\$	396,000
2024	PR-1187	Widen & improve alignment Adam Rd	\$	400,000
2024	PR-1895	Construct roundabout Vittoria Rd & Erica Ent	\$	600,000
2024-2034	PR-3985	Upgrade roads as per asset management plan	\$1	10,475,000
2025	PR-1189	Improve intersection Underwood St	\$	300,000
2025	PR-1228	Upgrade kerb & profile Victoria St	\$	436,000
2026-2027	PR-1233	Install traffic signals Hennessey Rd & Sandridge Rd	\$	360,000
2026	PR-1215	Upgrade kerb & profile Victoria St	\$	100,000
2027-2028	PR-1264	Upgrade & widen King Rd	\$	1,000,000
Total			\$2	25,342,000

Maintenance and New & Expansion

Page 12

New and expansion works refer to the creation of assets that did not previously exist and addresses growth, social or environmental needs e.g. Koombana Foreshore Development.

Road maintenance is the repair and upkeep of assets ensuring safety, functionality and operational capacity e.g. road and carpark sweeping and responding to road defects (see below images).

Whilst the adopted IFP has acknowledged an increase of 2 & 3% for operating expenditure for new and expansion projects, this is overstating the maintenance requirement for new assets as routine road sweeping is minimal and required maintenance on a new road is negligible.

Modelling is based on 1% allowance for future growth and has calculated a required increase of \$236,250 for future operating expenditure over the 15 year period based on new and expansion projects \$3,750,000.

Drivers for New & Expansion

- Structure Plan—redevelopment of existing suburbs i.e. Withers Local Area Plan
- Suburb development e.g. Tuart Brook and Moorelands
- Community expectations for more on-road cycle provisions e.g. Parade Road cycle lane
- Road safety by means of traffic management devices e.g. Stockley Road traffic island

New & Expansion Project Overview

Year	Project ID	Description	Buc	lget
2020-2034	PR-1140	Traffic calming and minor intersection treatments	\$	1,500,000
2021	PR-4725	Construct car park Kelly Park Playground	\$	55,000
2021	PR-4745	Construct Cycle Lanes Washington Avenue	\$	300,000
2022	PR-1325	Install traffic calming Devices Hastie Street	\$	80,000
2026	PR-4443	Extend car park Bunbury Wildlife Park	\$	175,000
2027	PR-1226	Extend Bradshaw Street	\$	100,000
2029-2031	PR-1099	Duplicate carriageway Old Coast Road	\$	1,540,000
Total for Nev	w & Expansio	on Projects	\$	3,750,000



• Street sweeping

Patching potholes









Asset Ratio
Evaluation

- As per the Asset Management Guidelines for Western Australian Governments, asset management programs should include evaluation mechanisms to measure their effectiveness against the targets and outcomes set out in Asset Management Strategies and Plans.
- As per the Local Government (Financial Management) Regulations 1996—Regulation 50 financial ratios are to be included in the Annual Financial Report.
- Ratios are calculated on the figures over the 15 year period (2019/20 to 2033/34).
- Please note as there has been significant change in the roads useful life and unit rates, depreciation figures are based on 30/06/2018 estimates as opposed to 30/06/2017 actuals.

Asset Consumption Ratio (ACR)

Asset Consumption	Katio (ACR)
	to which depreciated assets have been ring their written down value to their
Target	50% - 70%
Asset Replacement Rate	44.92%
Measurement Note	< 50% ratio indicates a rapid deterioration of the asset base.
	60% ratio indicates an adequate useable level of service across asset categories.
	> 75% ratio indicates a possible over investing in the asset base.
Therefore	Whilst the target ratio indicates that we are eroding our asset base too quickly, it must be understood that condition is driving our renewal program. As our confidence in condition continues to grow, we envisage that remaining useful life
	will be the key driver for all future asset management planning.

depreciated replacement cost of assets

current replacement cost of depreciable assets

Asset Sustainability Ratio (ASR)

Target	90% - 110%
Asset Replacement Rate	73.60%
Measurement Note	< 90% ratio indicates possible under investing in renewal and replacement of assets.
	>110% indicates possible over investing in renewal and replacement of assets.
Therefore	This ratio indicates that we are underspending on road renewal, which is inline with our renewal shortfall of \$8,198,445. The City will not meet the ASR target unless we start prioritising renewals (particularly access roads).

Measures the extent to which assets are being renewed / replaced

Asset Renewal Funding Ratio (ARFR)

fund required Road asset renewals.		
Target	95% - 105%	
Asset Replacement Rate	83.62%	
Measurement Note	> 95% ratio indicates that the IFP makes adequate provisions to maintain existing levels of service and renew or replace assets.	
	< 75% ratio indicates possible inadequate provision for future renewal or replacement of the asset base.	
Therefore	Whilst the asset renewal funding ratio is currently below target range (due to the renewal shortfall of \$8M) due to the majority of road assets having a long useful live, \$192,209,482 of the network does not fall due for replacement until after 2035.	

net present value of planned capital renewal over 15 years net present value of required expenditure over 15 years

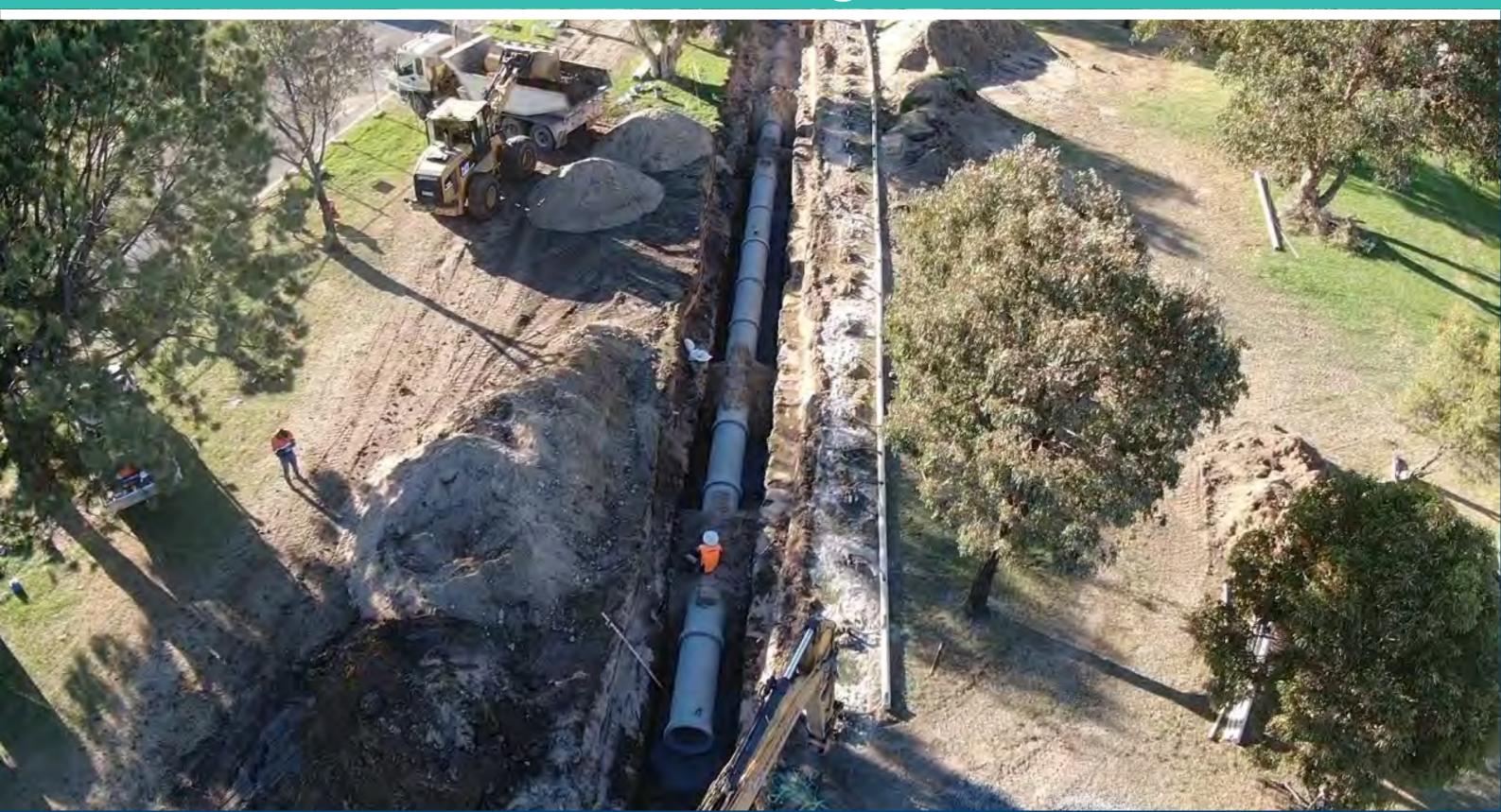


capital renewal and replacement expenditure

depreciation expense



Stormwater Asset Management Plan 2019





Glossary of Terms

Page 2

Asset Renewal

Replacing or refurbishing an existing asset with an asset of equivalent capacity or performance capability.

Asset Renewal Period

The estimated replacement period of the asset.

Condition Rating

An asset being physically inspected to determine its current state, classified using a score of 1-5.

Current Replacement Cost (CRC)

The cost required to replace the given asset in todays dollars. All dollar figures are ex GST.

Financial Data & Values

Obtained from AssetFinda reporting system as at January 2019.

Integrated Financial Plan (IFP)

The adopted Integrated Financial Plan 2019/20 to 2033/34 as at 28th May 2019.

IPWEA

Institute of Public Works Engineering Australasia.

Maintenance

The reactive or planned work required to maintain the asset.

New & Expansion, Upgrade and Renewal Projects

Capital projects identified in the adopted Integrated Financial Plan 2019/20 to 2033/34.

Useful Life

The estimated life expectancy of the asset.



Page 3 Stormwater
Overview

The City of Bunbury

- Current replacement value of \$102,619,637
- Owns and maintains over 19,991 individual stormwater assets which comprises of 255.05 km of stormwater pipe and 9,720 pit & plant assets
- \$94,518,205 (92.11%) of the stormwater network does not fall due for renewal until after 2035
- \$8,101,432 renewal required over the next 15 year period
- Recognises capacity, building density and population growth will impact on future replacement

Stormwater Pipes

Includes assets such as gravity & pressure mains and strip drainage

- Current replacement cost of \$73,979,235
- 255,054 lineal meters (255.05 km) of pipe captured within the database
- Moderate level of confidence in the data collected within this plan.

Stormwater Pits

Includes assets such as headwalls, side entry, junction pits and soak wells

- Current replacement cost of \$25,316,222
- 9,645 individual assets captured within the database
- Moderate level of confidence in the data collected within this plan.

Stormwater Plant

Includes assets such as drainage pumps, electrical cabinets, housing and underground storage cells

- Current replacement cost of \$3,324,180
- 75 individual assets captured within the database
- High level of confidence in the data collected within this plan.

Please Note

Of the existing 19,991 captured assets 8,929 (44.67%) have been visually inspected to verify the condition, pipe diameter and constructed material.

Drainage compensation basins do not form part of this summary plan as they are listed and managed within the land asset data.

Overview

The Stormwater network consists of the following assets:

- Stormwater Pipes: 255.05 kilometres
- Stormwater Pits: 9,645 individual assets
- Stormwater Plant: 75 individual assets

Asset Age Overview

Stormwater installation dates have been compiled from various sources that include:

- Works & Services historical data Aerial imagery
- Practical completion collection Tendered works
- As constructed drawings

Where no exact installation date is known, an assumption has been made based on the age of the suburb and the road construction date.

Useful Life

Useful life is the period over which an asset is expected to be available for use.

Stormwater asset useful life has been derived from the Australian Standards AS/NZ 4058:2007 and AS/NZ 1254: 2010.

Many factors can affect an assets useful life including:

- Asset material e.g. concrete v PVC pipe
- Environment e.g. coastal location
- Vegetation intrusion e.g. tree roots
- Regular maintenance

Other factors driving replacement include:

- Volume capacity: older suburbs with smaller diameter pipes
- Population capacity: dwelling development and growth
- Building density (infill development): larger residential blocks being subdivided
- Water absorption: increase of non permeable surfaces e.g. lawns being replaced with sealed areas

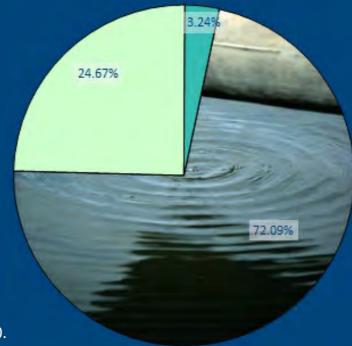
Current Replacement Cost

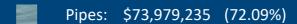
The Current Replacement Cost is derived from:

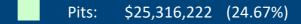
- Rawlinson's Australian Construction Handbook 2016
- Tendered capital works projects

Stormwater unit costs were reviewed in 2019 Unless otherwise specified replacement costs

include supply, delivery and installation.







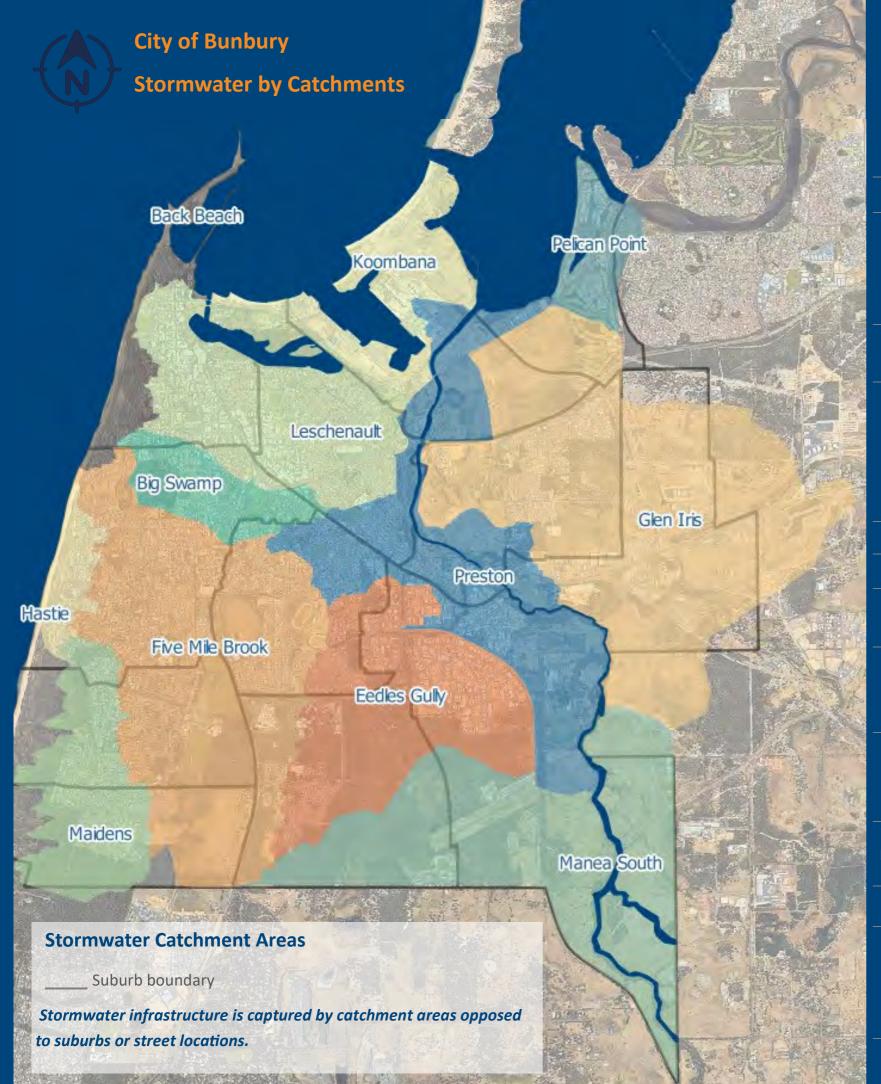




Current Replacement Cost Breakdown

Current nep	decinent cost breakdown						
Asset Type	Asset Sub Type	Useful L	ife	Coun	t		CRC
	Atlantis cells	100	yrs	2.04	km	\$	295,316
	Culverts	50-75-100	yrs	2.88	km	\$	2,162,069
Pipes	Gravity main	20-50-100	yrs	241.32	km	\$	69,884,685
ripes	Perforated strip drain	20-50-100	yrs	7.41	km	\$	1,217,116
	Pressure main	50-75	yrs	1.40	km	\$	420,049
Total Pipes	(255.05 km)					\$	73,979,235
	Headwall—concrete	100	yrs	343	ea	\$	379,470
	Headwall—basalt & cement	50	yrs	65	ea	\$	96,539
	Headwall—rock & limestone	20-40	yrs	32	ea	\$	40,896
Pits	Gross pollutant traps	50-80	yrs	5	ea	\$	513,471
	Road drainage pits	100	yrs	5,477	ea	\$	15,302,861
	Verge drainage pit	100	yrs	3,723	ea	\$	8,982,985
Total Pits (9,645)						\$	25,316,222
	Retention cell	100	yrs	27	ea	\$	489,056
Plant	Electrical cabinet & shed	25	yrs	21	ea	\$	1,517,757
	Pumps	15	yrs	27	ea	\$	1,317,367
Total Plant (\$	3,324,180	
Total Currer	nt Replacement Cost					\$1	02,619,637





Page 5 Catchment
Areas

Catchment	Suburbs Included	Installs Commenced	CRC	Size of Catchment	Pipe Length per Catchment
Back Beach	• Bunbury	1945	\$2,823,994	185.96 h	7.02 km (2.75%)
Big Swamp	BunburyEast BunburyCarey ParkSouth Bunbury	1945	\$6,985,907	179.02 h	16.35 km (6.41%)
Eedles Gully	Carey ParkCollege Grove	1945	\$10,662,508	610.90 h	30.29 km (11.87%)
Five Mile Brook	UsherWithersCarey ParkSouth BunburyCollege Grove	1925	\$22,334,076	1,039.40 h	56.26 km (22.06%)
Glen Iris	Glen Iris	1945	\$7,996,229	1,369.19 h	22.53 km (8.83%)
Hastie	• South By	1945	\$1,080,111	89.91 h	3.26 km (1.28%)
Koombana	BunburyVittoria	1980	\$196,624	308.77 h	0.49 km (0.19%)
Leschenault	BunburySouth BunburyEast Bunbury	1925	\$33,794,661	568.07 h	74.52 km (29.27%)
Maidens	 Usher South Bunbury Withers	1945	\$6,708,287	344.13 h	18.54 km (7.27%)
Manea South	College GroveDavenport	1965	\$464,012	878.93 h	1.28 km (0.50%)
Pelican Point	Pelican Point	1945	\$1,975,287	139.59 h	5.24 km (2.05%)
Preston	Carey ParkDavenportPictonVittoria	1925	\$7,597,941	754.68 h	19.27 km (7.55%)
			\$102,619,637	6,468.55 h	255.05 km (100%)

Asset Condition Overview

"The objective of a condition assessment is to provide sufficient information on asset condition to allow informed strategic asset planning and management decisions to be made" [IPWEA Practice Note 3].

Stormwater assets have been condition rated based on IPWEA Condition Assessment & Asset Performance Guidelines Practice Note 5 V2 2015 Stormwater Drainage as per the stated parameters in the table.

Condition rating percentages in the adjacent pie graphs reflect the (8,929) 44.67% stormwater assets that have been collected and visually verified over the past four year period:

- Stormwater Pipe: 104.07 km of pipe
- Stormwater Pits: 4,748 individual assets
- Stormwater Plant: 75 individual assets

All drainage assets are photographed and the internal stormwater pipes are digitally captured (video or image) which is used to determine the asset condition and performance.

Condition rating priority has been given to stormwater pipes that fall due for replacement prior to 2019 based on age.

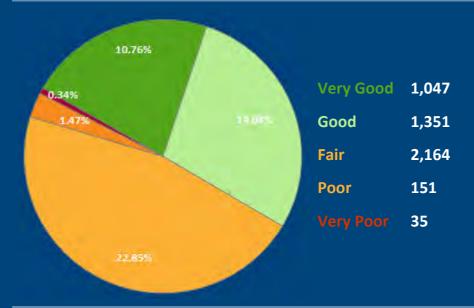


93.72 km (90.05%) of verified stormwater pipe is in average condition or better

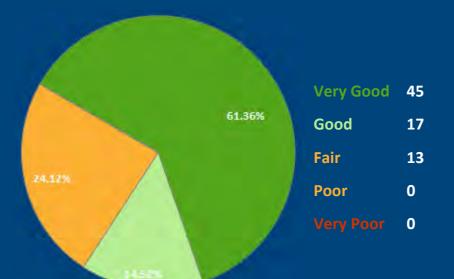
Pipe: 104.07 kilometres (40.80% verified data)



Pits: 4,748 individual assets (49.23% verified data)



Plant: 75 individual assets (100% verified data)



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Assessment

Condition

AF:ON

Rating	Parameters	Image
Very Good	Sound physical condition. Insignificant deterioration. Asset likely to perform adequately without major work for 25+ years. No or insignificant loss of hydraulic capacity.	AF: ON
	Acceptable physical condition; minor deterioration minor defects evident.	

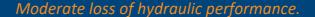
Moderate to significant deterioration. Minor components or isolated sections of the asset need replacement or repair now but not affecting the short term structural integrity. Fair Failure unlikely within next 10 years but further deterioration likely and major replacement likely within next 10-20 years.

Negligible short term failure risk but potential for

deterioration in long term 20+ years.

Minor loss of hydraulic performance.

Only minor work required.



Serious deterioration and significant defects evident affecting structural integrity. Failure likely in short to medium term. Likely need to replace most or all assets within 10 years. No immediate risk to health or safety but works required within 10 years to ensure asset remains safe.



replace most or all of asset. Health and safety hazards exist which present a possible risk to public safety, or asset cannot be

serviced / operated without risk to personnel. Major works or replacement required urgently.

Failed or failure imminent. Immediate need to



Poor

Good

Significant loss of hydraulic performance.

Renewal Overview

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Renewals

Asset Renewal is the replacement or refurbishment of an existing asset to return it to its original performance and service level (like for like).

Renewal planning is essential to ensure that adequate funding is available and assets are replaced at an optimum time thus maintaining the desired service levels.

The Stormwater renewal budget is calculated on the age of the asset and not the physical condition of the asset.

The year of acquisition and the useful life determines the year that the asset falls due for replacement.

Renewal Period

Backlog: \$ 2,088,111 (2.03%)
15 year renewal: \$ 6,013,321 (5.86%)

Beyond 2035: \$94,518,205 (92.11%)

Renewal Budget & Future Reserve Funds

Total projected renewals 15 years \$ 8,101,432

Total IFP renewal budget 15 years \$ 7,920,000

Total renewal shortfall 15 years \$ 181,432

Total renewal shortfall per annum \$ 12,095

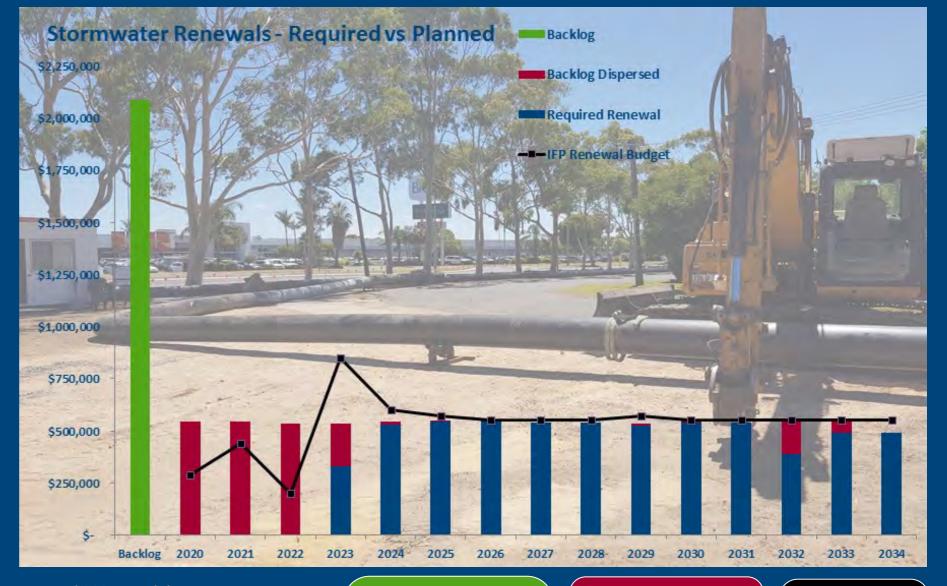
Based on the current replacement cost 89.95% of all stormwater assets have a long life expectancy of 100 years.

The spike in the IFP budget line in 2023 is due to projects:

1.	PR-2642 Improve drainage network	\$ 500,000
2.	PR-3413 Renew stormwater infrastructure	\$ 330,000
3.	PR-3175 Rehabilitate Five Mile Brook	\$ 20,000

The beyond 2035 figures are based on first renewal only and do not take into account subsequent replacements.

Whilst there is only a slight shortfall of \$181,432 for renewing stormwater assets over the 15 year renewal period it should be noted that **\$94,518,205 (92.11%)** of the stormwater network does not fall due for renewal until after 2035.



Beyond 2035 Breakdown

Renewal Year	Count	CRC
2035 to 2044	473	\$ 5,046,350
2045 to 2054	493	\$ 3,432,900
2055 to 2064	252	\$ 1,456,923
2065 to 2074	3,066	\$19,067,609
2075 to 2084	5,478	\$21,244,370
2085 to 2094	2,520	\$14,493,430
2095 to 2104	3,966	\$16,681,521
2105 to 2114	1,965	\$ 9,002,551
2115 to 2124	914	\$ 4,092,551
Total		\$94,518,205

Backlog:

assets that fall due for renewal prior to 2019 but have not yet been replaced or refurbished.

Backlog Breakdown:
Gravity Mains \$1,889,243

Headwall \$ 3,208
Pumps \$ 171,230
Sheds \$ 24,430
Total \$2,088,111

Backlog Dispersed:
spreading the backlog of
asset renewals over the
fifteen year renewal
period.

Required Renewal:

an asset due for renewal for the first time within the 15 year period.

IFP Budget:
projects that have
been identified and
included in the
Integrated Financial
Plan.

This plan acknowledges the renewal of existing assets only and does not pre-empt the expenditure or required budget for renewing and upgrading assets within future projects. New assets will be collected and entered into the database upon completion of works where they will form part of future Asset Management Plans.

Maintenance & Project Overview

- **New and expansion** works refer to the creation of assets that did not previously exist and addresses growth, social or environmental needs e.g. Koombana Foreshore development.
- Capital upgrade works refer to improvement and expansion of an existing asset capacity and functionality e.g. capacity improvement works at Columba Street and Perkins Avenue.

Stormwater maintenance is the repair and upkeep of assets ensuring safety, functionality and operational capacity. Maintenance may be:

- Scheduled: (planned) e.g. regular cleaning of pipes in known flood prone areas.
- Reactive: (unplanned) e.g. removal of debris and litter from side entry pits after heavy rainfall.

As per the adopted Integrated Financial Plan 2019/20 to 2033/34, the City has acknowledged and made allowance for the costs that will be incurred to maintain and up-keep future growth assets.

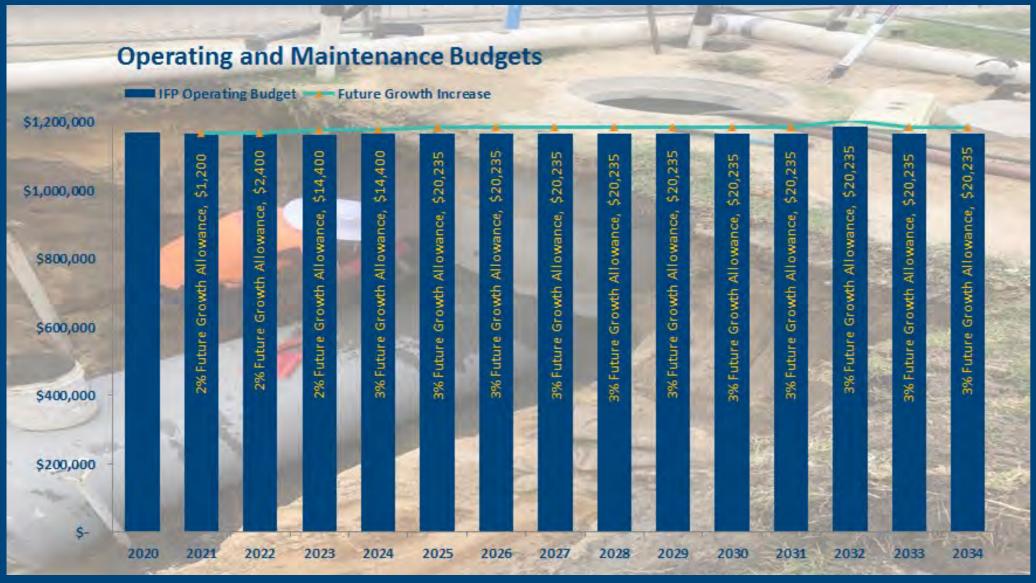
"The impact of new and upgrade capital projects on operating expenditure (i.e. increased: maintenance, repairs, insurance, utilities etc) of 2.0% (increasing to 3.0% from 2023-24) of capital expenditure and has been included in the IFP to recognise the whole-of-life cost."

The future growth value in the below graph indicates the required budget to allow for the increase of additional maintenance for new & expansion and capital upgrade projects \$914,500.

New & Expansion and Capital Upgrade Projects

Year	ID	Description	Budget
2020	PR-4723	Install Pump Station Hayes Street	\$ 60,000
2021	PR-4723	Install Pump Station Hayes Street	\$ 60,000
2022	PR-4723	Install Pump Station Hayes Street	\$ 600,000
2024	PR-2650	Upgrade Compensation Basin Dunstan Street	\$ 194,500
Total			\$ 914,500







Strategic Plans *driving future projects*:

- 1. City of Bunbury Strategic Community Plan
 - 2. Flood Management Strategy
- 3. Various Water Management Strategies
- 4. Stormwater Levels of Service (to be completed)



Asset Ratio

- As per the Local Government (Financial Management) Regulations 1996—Regulation 50 financial ratios are to be included in the Annual Financial Report.
- Ratios are calculated on the figures over the 15 year period (2019/20 to 2033/34).

Asset Consumption Ratio (ACR)

Measures the extent to which depreciated assets have been
consumed by comparing their written down value to their
replacement cost.

replacement cost.	
Target	50% - 70%
Asset Replacement Rate	61.80%
Measurement Note	< 50% ratio indicates a rapid deterioration of the asset base.
	60% ratio indicates an adequate useable level of service across asset categories.
	> 75% ratio indicates a possible over investing in the asset base.
Therefore	This ratio demonstrates that the City's stormwater asset useful life is reasonable and that assets are depreciating at an acceptable rate.

depreciated replacement cost of assets current replacement cost of depreciable assets

Asset Sustainability Ratio (ASR)

Measures the extent to which assets are being renewed / replaced
compared to the amount consumed (depreciated).

Target	90% - 110%
Asset Replacement Rate	45.37%
Measurement	< 90% ratio indicates possible under
Note	investing in renewal and replacement of assets.
	>110% indicates possible over investing in renewal and replacement of assets.
Therefore	Whilst the ratio indicates surplus funds for
	stormwater renewal in the next 15 years, it
	needs to be understood that 83.98% of
	needs to be understood that 83.98% of stormwater assets have a 100 year long useful
	stormwater assets have a 100 year long useful

capital renewal and replacement expenditure depreciation expense





Asset Renewal Funding Ratio (ARFR)

This ratio provides an indication of the City's financial capacity to	
fund required Stormwater asset renewals.	

Target	95% - 105%
Asset Replacement Rate	97.76%
Measurement Note	> 95% ratio indicates that the IFP makes adequate provisions to maintain existing levels of service and renew or replace assets.
	< 75% ratio indicates possible inadequate provision for future renewal or replacement of the asset base.
Therefore	Whilst the current IFP budget indicates over servicing for renewals in the next 15 years, this is not a true reflection as the majority of assets (92.11%) do not fall due for replacement until after 2035.

net present value of planned capital renewal over 15 years net present value of required expenditure over 15 years





Structures Asset Management Plan 2019



Data Breakdown

Asset Type	Useful Life	Size		CRC	
Animal Enclosure	10-40 yrs	23	ea	\$	1,068,286
Arbor	20 yrs	6	ea	\$	43,042
Boardwalk	35 yrs	712	m	\$	747,170
Crash Barrier	15 yrs	633	m	\$	64,338
Decorative Ribs	50 yrs	1	ea	\$	414,131
Fencing	15-80 yrs	34,343	m	\$	2,103,308
Flag Pole	40 yrs	1	ea	\$	48,880
Security Gate	40 yrs	4	ea	\$	46,696
Hand / Guard Rail	25-40 yrs	2,091	m	\$	809,581
Marlston Look-Out Tower	100 yrs	1	ea	\$	1,000,000
Look-Out Decking	30 yrs	135	m2	\$	141,750
Public Shelter	30-35 yrs	88	ea	\$	1,424,105
Retaining Wall	40 -80 yrs	13,123	m	\$	6,430,339
Signage Board Shelter	35 yrs	2	ea	\$	14,580
Sporting —Seating	50 yrs	2	ea	\$	142,500
Sporting— Dug Out	30 yrs	13	ea	\$	109,005
Steps	20 yrs	780	m	\$	118,235
Structures Total				\$1	4,725,946

- High levels of confidence in shelters data
- Low level of confidence in the data captured for all other
 Structure asset types
- Renewals are calculated on asset year of acquisition and base life, not physical condition
- Due to changes in the Financial Management Regulation 17(A), certain assets under \$5,000 are no longer capitalised, therefore they will need to be replaced and maintained through operating budgets
- This includes assets such as bollard post & rail, fencing, guard rails and crash barrier blocks
- Financial data and values obtained from AssetFinda reporting system as at January 2019. All figures exclude GST.

Renewal Period

• Backlog		\$	75,849	(0.51%)	
• 15 year renewal		\$ 1,	169,173	(7.94%)	
Beyond 2035		\$13	,480,924	(91.55%)	
Total Current Replacement Cost		\$14,725,946			
Renewal Budget					
Total Required Renewa	ls (15 years)	\$1,2	245,022		
Total IFP Renewal Budget (15 years)		\$5,419,000			
 Total Renewal Surplus (15 years) 		\$4,173,978			
IFP Budgets 2019/20 to 2033	3/34				
Operating & Maintenan	ce	\$1,8	350,355		
New & Expansion Capita	al Works	\$ 2	05,000		

Structures Overview

Note 1: Whilst it appears that we are over servicing Structure assets by \$4,173,978 over the 15 year period it must be noted that 91.55% of assets do not fall due for renewal until after 2035.

I.e. The Marlston Look out Tower is not due for replacement until 2095 with a value of \$1M.

Note 2: \$3,600,000 has been allocated to the renewal of boardwalks and look-outs in the IFP, however the required renewal figure is substantially less. It is recommended to redistribute some of these surplus funds to operating & maintenance accounts.

Note 3: Projects in the Long Term Financial Plan will be reviewed to align with the required renewals thus reducing the surplus.

Note 4: Structures and Public Art are captured in the same Asset Group 'Structures' however, as Public Art is not renewed or replaced like for like it was decided to list them in individual asset management summaries.

