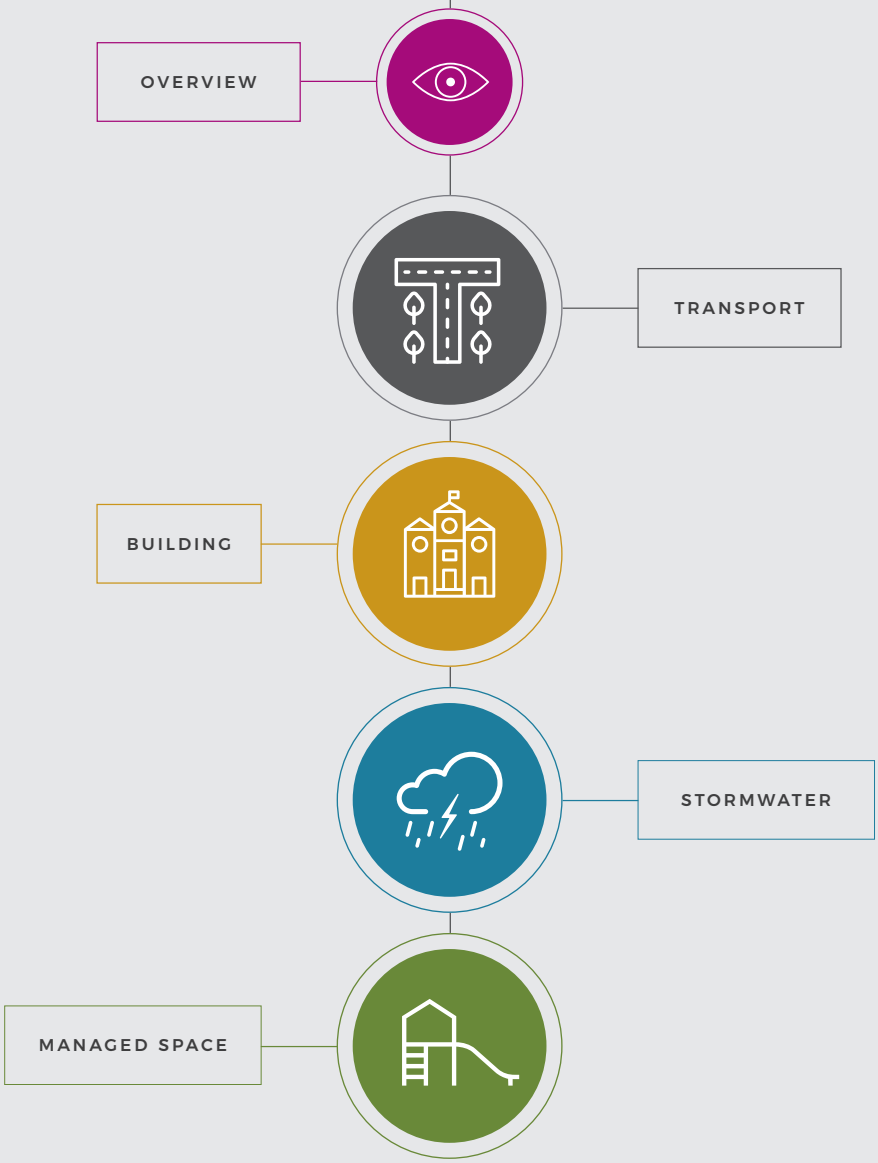
OVERVIEW

STRATEGIC ASSET MANAGEMENT PLAN



CITY OF Albany

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Introduction

ASSET MANAGEMENT PROVIDES MANY IMPORTANT BENEFITS TO THE ORGANISATION AND THE COMMUNITY.

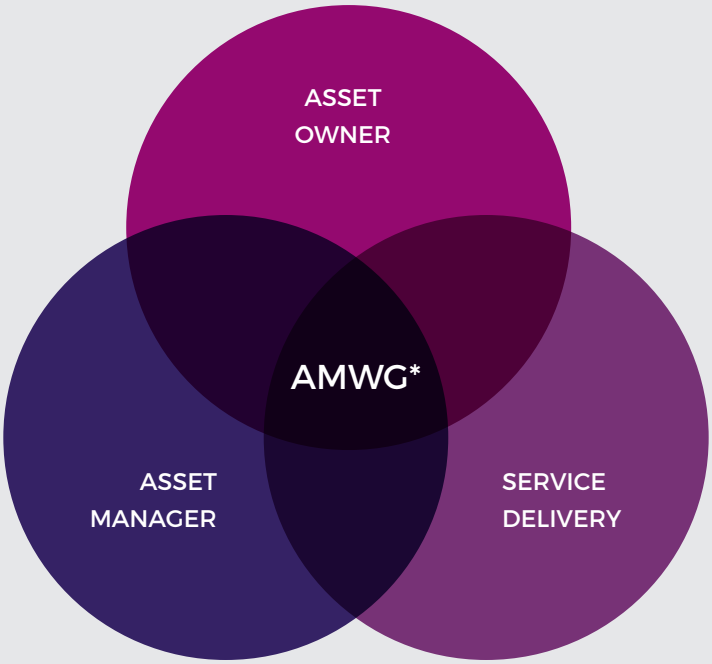
THESE INCLUDE;

- More sustainable financial performance
- Better informed investment decisions
- Improved management of risk
- More efficient service delivery
- Improved social responsibility
- Demonstrated compliance
- Enhanced community communication

These benefits are achieved through the implementation of good asset management practices.

The Asset Management Policy recognises asset management as an important and fundamental corporate function across the whole of the organisation.

The City has introduced an Asset Management Structure to ensure all assets have a strategic and operational custodian. This structure provides clarity of responsibilities for appropriate and informed decision making.



*ASSET MANAGEMENT WORKING GROUP

What we do

The City owns and maintains a substantial network of infrastructure assets, parks and community facilities that provide a variety of services and benefits to the local community. These assets vary in complexity and are diverse in nature.

These assets support our modern day to day activities and are often not noticed until they are no longer meeting expectations or fail. The City works hard to ensure these assets are as resilient, economical and sustainable as possible.

Total Value Approximately

$800 MILLION

1# FUN FACT

The City is responsible for $20,000 of assets per resident

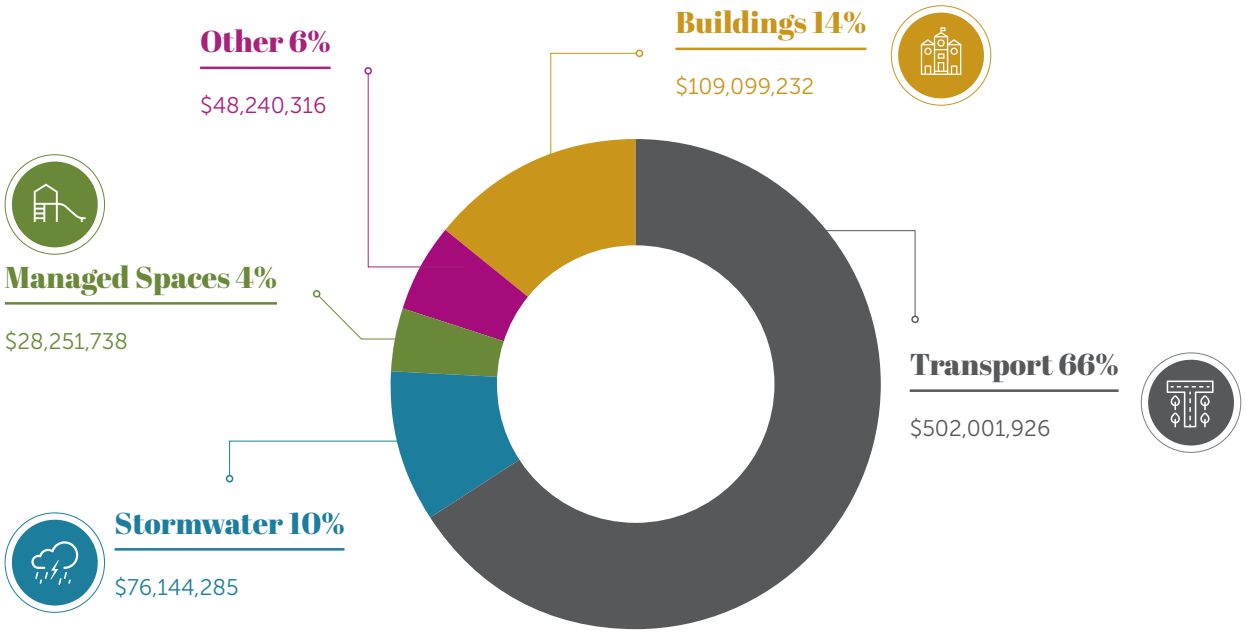
What we own

The City of Albany groups assets in the following asset classes for ease of planning and reporting.

This document will contain an overview of the asset management systems in place at the City of Albany and each part is an individual Strategic Asset Management Plan (SAMP).

The asset classes covered by SAMP's are as follows;

The SAMP's document how the City plans to achieve the objectives in the Community Strategic Plan. Through the identification of critical risks, monitoring of service levels and performance, understanding lifecycle management & maintenance strategies. They also quantify anticipated expenditure and highlight focus areas for improvements.



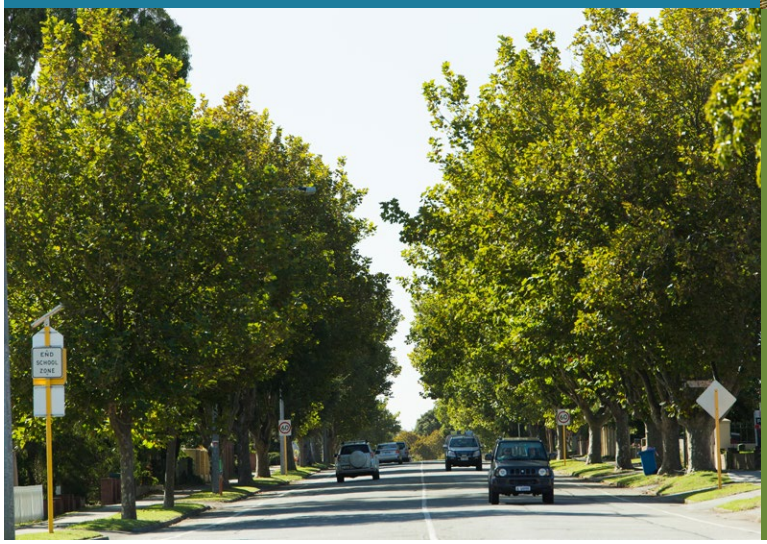
TOTAL REPLACEMENT COST

$763,737,497

Our Vision

To be Western Australia's most sought-after and welcoming regional city to work, live or visit.

To protect and enhance our natural & built environment in a changing climate



To build, maintain and renew City assets sustainably

What we plan to spend

Capital expenditure is divided into categories of Renewal, Upgrade and Expansion.

Renewal is the replacement of an existing asset with service levels and a decrease in maintenance expenditure may occur. Whereas upgrade and expansion increase the asset base, may increase service levels, maintenance and renewal liability. The breakdown of capital expenditure allows for the monitoring of asset ratios to ensure adequate funding of the renewal of existing assets.

Below is the current ten year capital works program (operational and maintenance projections to be added) for all asset classes. The average expenditure per annum over the 10 year plan period is $11.6 million which equates to approximately 1.5% of the total replacement cost of the City's assets. Renewal expenditure equates to 1% of the total replacement cost over the same period.

* BASED ON 10 YEAR PLAN CREATED IN 16/17 AND CRC OF ASSETS IN 14/15 FAIR VALUE

Ten Year Capital Works Program

	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate	Financial Estimate
Renewal	6 943 920	8 870 569	6 668 800	7 669 726	6 978 578	8 329 222	7 086 679	8 115 028	8 548 769	8 349 145
Upgrade	850 280	551 153	4 820 722	1 817 801	2 544 911	2 802 806	1 642 694	3 205 860	3 160 644	1 665 920
Expansion	1 097 300	872 150	809 903	856 250	784 581	1 091 343	3 681 613	784 560	1 088 428	4 739 853
Total	8 891 500	10 293 873	12 299 425	10 343 776	10 308 070	12 223 370	12 410 985	12 105 448	12 797 840	14 754 918

Financial modelling is undertaken annually to predict and project the required spending scenarios to maintain existing service levels. The following graph shows the difference between the proposed expenditure in the long term financial plan and the renewal projections from the modelling. The average variance over the 10 year period across all asset classes is approximately $1m. This variation is considered reasonable given the size of the asset base and the data confidence used in the modelling.

ALL ASSETS | COMPARISON OF RENEWAL MODELLING TO LONG TERM FINANCIAL PLAN EXPENDITURE

	2016 1	2017 2	2018 3	2019 4	2020 5	2021 6	2022 7	2023 8	2024 9	2025 10
RENEWAL MODELING	$8,394,080	$8,583,652	$8,728,912	$8,390,029	$8,525,824	$8,431,498	$8,787,843	$9,141,972	$9,44,582	$9,759,279
LONG TERM FINANCIAL PLAN	$6,943,920	$8,870,569	$6,668,800	$7,669,726	$6,978,578	$8,329,222	$7,086,679	$8,115,028	$8,548,769	$8,349,145

EXCLUDING LTFP EXPENDITURE ON ASSETS NOT MODELLED (WASTE, AERODROMES, TRAILS)

What's in the plans

The objective of each Strategic Asset Management Plan part is to outline the most likely scenario for managing that asset class including proposed renewal expenditure, condition profiles, data management, critical assets, service levels and planned improvements.

The SAMP's shall provide an adopted rationale for how we prioritise long term projects and when we intervene for cost effective renewal programs. This information informs the City of Albany Long Term Financial Plan.

It is important to have an understanding of the quality of the data that underpins many of the assumptions and modelling in the plans. The matrix following illustrates the City's confidence in the data across asset groups.

Table 1 Confidence Matrix

Data Confidence Matrix						
	Asset Group	%Asset Base	Quantity	Replacement Cost	Useful Life	Condition
	Transport	54%	High	High	Medium	Medium
	Building	16%	High	High	Medium	Medium
	Stormwater	12%	Medium	High	Low	Low
	Managed Spaces	4%	Medium	Medium	Medium	Medium

State of the Assets

One of the core tasks of the Asset Management Team is to monitor the state of the assets. This is achieved through rolling condition assessments across all asset classes including CCTV of underground pipes.

The methodology for condition surveys varies depending on asset classes, available technology, cost and quantity of infrastructure. These methodologies, timings and frequency are outlined in each asset group section.

All asset classes use a 1 – 5 scale for recording condition with 1 being new and 5 being poor condition. The exception to this rule is managed space assets that have relatively short lives and therefore a 1 – 3 scale is used.

FUN FACT 2#

Our GIS database holds over 1,400,000 fields of asset data!

Managing the Assets

All assets have been categorised into hierarchies to group them by function and importance.

This method of grouping allows for identifying critical assets, allocating appropriate levels of service to different assets and to align responsibility with the organisational structure.

Hierarchies around importance often align with the utilisation, capacity and consequence of failure of assets. Whereas the functional hierarchy is around the service the asset provides to the community.

Principle Risks

Risk	Description	Mitigation
Strategic – risks that effect our ability to deliver strategic objectives		
Climate Change	The potential for more frequent damaging and intense climate events .	Ensuring appropriate design at renewal to meet changing demands on infrastructure
Urban Sprawl	Uncontrolled expansion of the urban footprint will result in up to a fourfold increase in the cost of delivery of infrastructure.	Local Planning incentives to increase urban infill. The City will not support any further rezoning of land for future urban or residential purposes.
Whole of life decision making	The consideration of all operational, maintenance, capital renewal and disposal costs of all projects at the feasibility stage and the impacts on ongoing sustainability.	Monitoring changes in renewal liability. Provision of whole of life costs for all projects to Council at feasibility.
Public Expectations	Community's perception of service levels and equity between suburbs.	Documented levels of service and appropriate Development Guidelines.
Financial – risks that impact financial position and long term sustainability		
Delayed renewal	Delayed renewal may result in an increase in consequential maintenance costs. It also has the potential to substantially increase the cost of renewal. eg. Reseal versus reconstruction	Continuous improvement of asset condition, modes of failure and trends.
Increasing asset base	Potential for increased depreciation expenses to impact the operational budget and increasing renewal liability.	Annual renewal modelling. Valuations on a 3 year cycle. Whole of life costs of projects provided to elected members. Facilitation of economic growth through preferably non-asset solutions.
Limited Revenue options	Low population growth limits an increase in rates income. An increasing older demographic on fixed incomes may put further pressure on rates revenue. Reduced funding levels from State and Federal governments.	Explore and consider commercial leasing options where appropriate. Rationalise existing under utilised assets. Actively seek funding opportunities.
Operational - risks relating to day to day operations		
Reactive approach to maintenance	Reacting to failures is a legitimate tactic in some cases with some low priority assets. In other circumstances it is cost effective to be proactive with planned & preventative maintenance programs for better outcomes.	Risk based reactive maintenance system. Priority based preventative maintenance program. Improve our understanding of maintenance expenditure. Appropriate renewal intervention levels.

Legislation	Transport	Building	Stormwater	Managed Space
Local Government Act & Regulations	✓	✓	✓	✓
Land Administration Act 1997	✓	✓	✓	✓
Building Act 2011		✓		
Occupational Health & Safety Act 1984	✓	✓	✓	✓
Aboriginal Heritage Act 1997	✓	✓	✓	✓
WA Disability Services Act 1993	✓	✓	✓	✓
Conservation & Land Management Act 1984	✓	✓	✓	✓
Environmental Protection and Biodiversity Conservation Act 1999	✓	✓	✓	✓
Country Areas Water Supply Act 1947 & Regulations 1981			✓	
Waterways Conservation Act 1976 & Regulations 1981			✓	
Heritage Act of Western Australia	✓	✓	✓	✓
Road Traffic Act 1974 & Various Regulations	✓			
Main Roads Act 1930	✓			
Road Traffic Code 2000	✓			
Building Regulations 2012		✓		
Standards, Guidelines & Policy				
Australian Accounting Standards	✓	✓	✓	✓
Austroads Guides	✓			
Australian Standards (Various)	✓	✓	✓	✓
Liveable Neighbourhoods	✓	✓	✓	✓
IPWEA LG Guidelines for Subdivisional Development	✓	✓	✓	✓
National Construction Code 2016		✓		
Stormwater Management Manual			✓	
Better Urban Water Management 2008			✓	
City of Albany				
Community Strategic Plan	✓	✓	✓	✓
Corporate Business Plan	✓	✓	✓	✓
Long Term Financial Plan	✓	✓	✓	✓
Albany Local Planning Strategy	✓	✓	✓	✓
Subdivision Development Guidelines	✓	✓	✓	✓
Albany Spatial Data Specifications	✓	✓	✓	✓
Property Management (Leases & Licences) Policy	✓	✓		✓
Heritage Protection Policy	✓	✓	✓	✓
Community Perceptions Surveys 2013, 2015 & 2017	✓	✓	✓	✓
Carbon Footprint Reduction Strategy		✓		
Municipal Heritage Inventory		✓		✓
Conservation Plans		✓		
Environmental Weed Strategy		✓		✓
Access and Inclusion Plan	✓	✓		✓
Natural Reserves Strategy				✓
Urban Tree Strategy				✓
Age Friendly Albany	✓	✓		✓
Stormwater Information Sheets			✓	
Road Maintenance, renewal & Upgrade Community Guidelines	✓			

Community Consultation

The City of Albany surveys the community to ascertain its perceptions and priorities on a range of measures. These measures include the community's satisfaction with services delivered through assets. The performance index scores from these biennial surveys are being utilised as performance measures in community levels of service in each of the four asset classes.

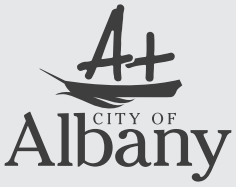
Monitoring and Review Procedures

To some extent the Strategic Asset Management Plans are a live document with changes to the underlying data happening constantly and routinely. Many of the components of these plans are cyclic in nature and will follow the schedule below:

- All inventories are live and are being updated continuously as assets are built, replaced or removed.
- Asset unit rates are reviewed on a three year rolling schedule in line with Fair Value obligations.
- Financials and renewal modelling projections are updated annually and adopted through the annual budget process.
- Levels of Service and Performance measures are reviewed as results from the Community Perception Survey are available.
- Major review every four years with integrated planning requirements.

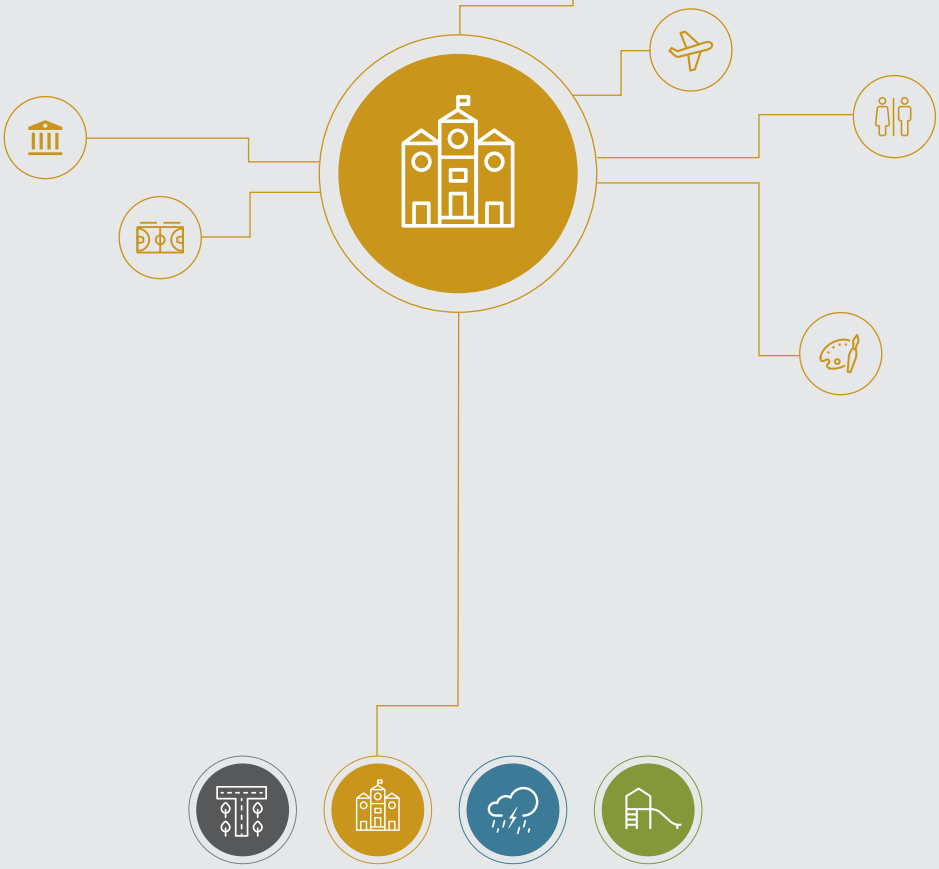
Improvement Plan

- Each SAMP will include specific improvements for each asset class.
- Continuous improvement of Albany Spatial Data Specification.
- Increased functionality with ArcGIS to evolve as more than an inventory tool - specifically in the areas of valuation, depreciation, remaining useful lives based on condition and capital renewal planning.
- Improve knowledge of useful lives through analysis of data.
- Apply knowledge of critical assets to improve management and maintenance.
- Continue to streamline organisational processes without creating extra work.
- Continue to improve long term asset management outcomes at project inception and feasibility.


CITY OF
Albany

BUILDINGS

PART 2



TRANSPORT | BUILDING | STORM WATER | MANAGED SPACE

City of Albany

What we do

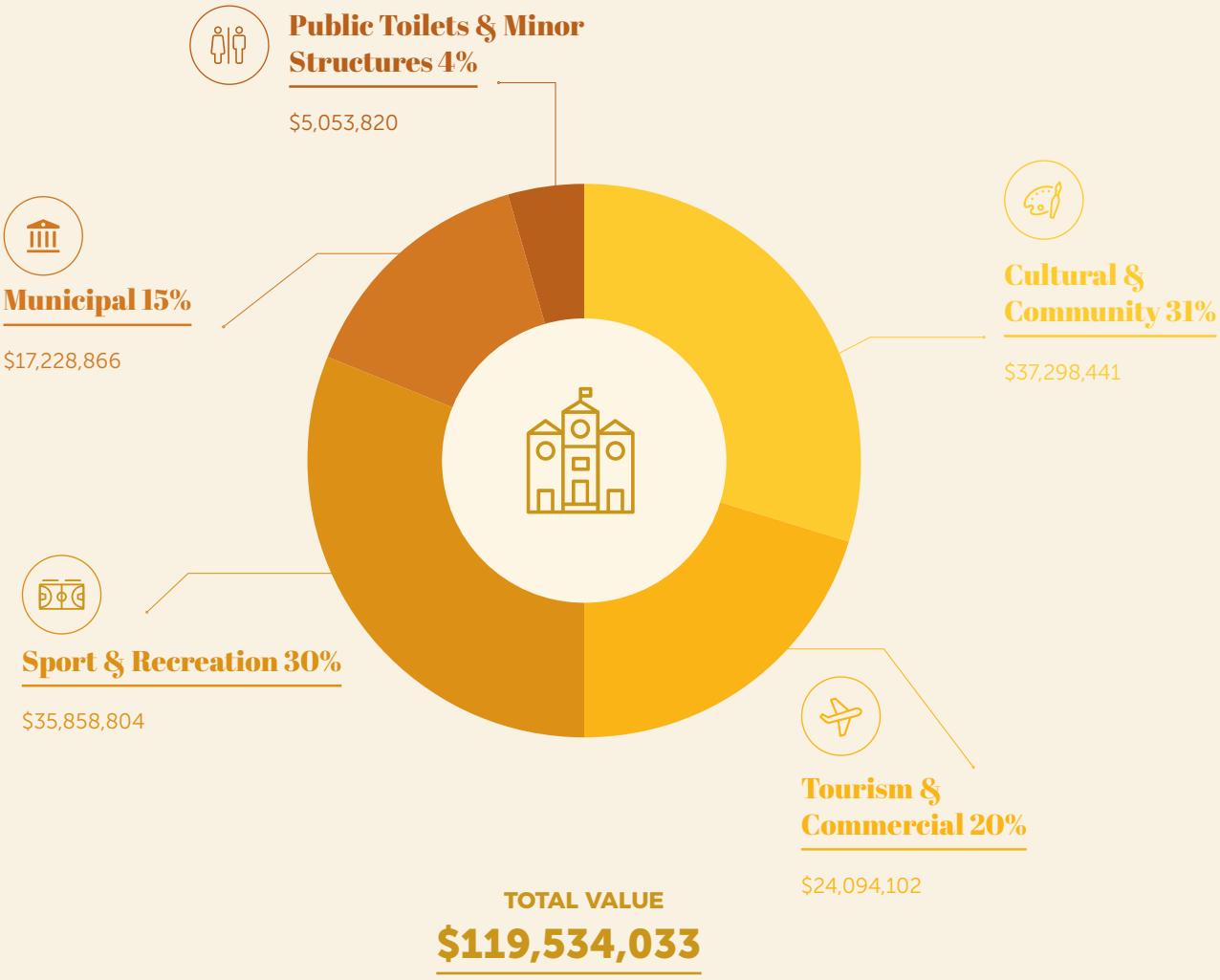
The City's building portfolio is rich and diverse. Community facilities are very much the shop windows to the services this local government provides. They house a range of services such as arts, culture, recreation, family services, not for profits, clubs, heritage and restaurants. As well as providing the essential assets to service the City's own operations such as the Works Depot, Administration and Waste Management.

We manage each of these 215 building structures to maximise their life and minimise the cost over each of their lives. This requires us to understand our buildings and how they are likely to fail. To think long term in delivering efficient maintenance and renewal programs. Another asset management focus area involves the constructing of new buildings. The design decisions made at feasibility will have a real impact on both economic and environmenatal sustainability for decades.

FUN FACT 1#

Our most important building is the National Anzac Centre & Forts

Building Function



TOTAL VALUE

$119,534,033

Why we do it

Simply put, the community expects to be provided with services for the rates they contribute. The community pay rates and in return they consume services such loaning a book from the library, having their rubbish collected, using community meeting places and recreation services.

Many of these services are not able to be delivered without a built asset. As these services and activities improve the health and well-being of our community, the building that house them are important.

High profile assets such as the National Anzac Centre have the added benefit of boosting the local economy by attracting visitors to the region. Whilst shared use facilities such as Lotteries House are encouraged, as they provide good value for money in providing many services from one asset.

The challenge is to balance the desires of the community with their willingness to pay. Achieving this balance will result in a satisfied community and a sustainable City.

Community outcomes

- All new building projects meet the needs of the demographic of the community, including young & older people, various cultural groups and those with disabilities.
- Improved in-house understanding of the condition and value of our buildings.
- Improved planned capital works & maintenance programming.

FUN FACT 2#

Almost 30% of the city buildings are Heritage listed

Growth & demand

The City of Albany is expected to continue to grow, although relatively slowly, with an increase in both over 55's and young adults. The population of older residents in Albany is notably higher than for the State as a whole.

An older population may have more leisure time and will increase the use of community facilities such as the library, Vancouver Arts Centre and the Albany Leisure & Aquatic Centre. The City has well visited Historic places such as the Town Hall, The Forts, Penny Post (UWA) and the Vancouver Arts Centre to name a few.

These buildings are very expensive to maintain or upgrade to contemporary standards for access & safety. Changes in demographics can trigger a change in services demanded by the community and this leads to re-purposing of older buildings, to maximise their service to the community. Securing funding to make these buildings more functional whilst retaining their integral heritage value is required.

There has been an increase in sporting facilities with the addition of the Western Oval Pavilion and the Football Stadium. Further work to complete the Centennial Sporting Precinct shall meet the demands of the Albany population well into the future.

To attract and retain young adults the City will continue to encourage strong secondary and tertiary education facilities in the region. It is noted in the Albany Local Planning Strategy that the availability of quality education facilities has a strong influence on communities both socially and economically.

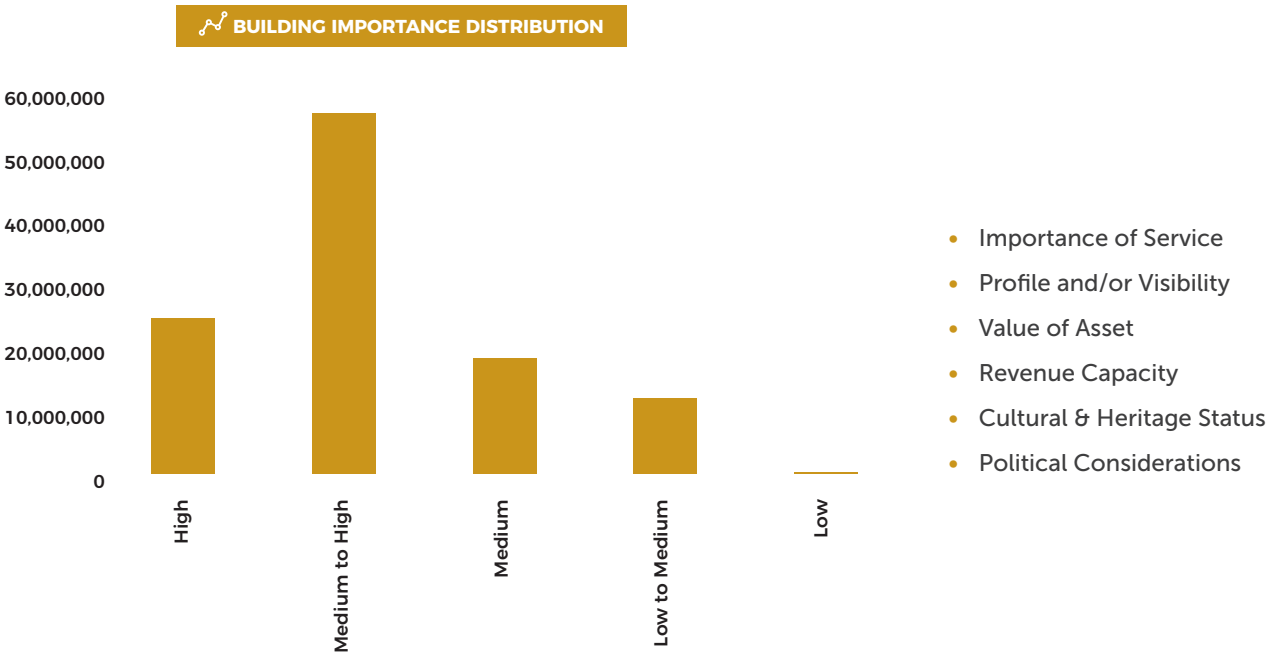
Managing our Buildings

Buildings are complex assets with many components to be maintained and replaced at different intervals. As well as being complex in nature they also have a variety of functions and some are more important to the community than others.

For this reason we have applied both a hierarchy of function and Importance to assist in grouping our buildings for ease of allocating responsibility and levels of service to be provided.

Functional hierarchy – Defines the current function of the assets and links in with the Asset Management structure of responsibility to the structure of the organization. This ensures the allocated Asset Owner and Asset Manager are in line with the City of Albany Directorates in the function of the building and services it provides.

Importance hierarchy – Defines the importance of a building to the community based on six parameters. This ensures levels of service of the building can be applied based on the importance of the service it delivers to the community.



Maintenance

The city has most preventative maintenance activities managed through contracts with reactive maintenance conducted either in-house through Trades or through a panel of contractors. Preventative and planned maintenance is currently being populated in the building asset management system at component level.

Essentially, if a building component requires a preventative maintenance activity, the component is added to the inventory and a standard schedule of maintenance is applied. Preventative and planned maintenance is undertaken to reduce the reactive maintenance expenditure and to maximise the life of components. Capturing data at component level is onerous so component are only added if there is associatd maintenance.

Leased buildings that are owned by the City will include a minimum level of preventative maintenance. This minimum standard is based on property & public risk and shall include Residual Currency Device testing, fire services inspection & testing and white ant inspection where timber components are present.

The goal is to use SPM Assets to prepare maintenance budgets, to inform maintenance contracts and to analyse maintenance expenditure trends. A key maintenance improvements is to implement a prioritised risk based reactive maintenance system inclusive of response times.

Condition

The condition of our building portfolio is constantly changing through deterioration of components and through improvements such as capital works, replacement of components through maintenance and new buildings being added to the inventory.

As mentioned above condition is not static, however an indicative snapshot of the building condition is included below. It is expected that a certain percentage of assets will be past or at the intervention condition level of 4. If this was not the case it would mean we are carrying out capital works earlier than required or over investing.

In our modelling scenario we calculate the percentage of assets over condition intervention within the 10 year planning period. The current percentage of assets in a condition over intervention is 1.76% and our aim is to keep this percentage of assets between 2 - 4%. The broad overall condition profile below illustrates that the majority of the building assets are in good to average condition with only 4.4% approaching poor to very poor condition.

The modelling tools and Asset Management System for buildings allows for much more analysis of condition at component level and will form the evidence for capital renewal planning.

Level of Service	How we measure performance	Previous Years		Targets	How we will meet the performance target
		2015	2017	2019	
Buildings will be in a condition appropriate to the hierarchy	% of building value over intervention level	New	2%	2%<4%	Capital renewal expenditure driven by renewal modelling based on condition. Works program prioritised based on the level of importance of the building
Buildings will be functional, clean and appropriately maintained	Community Buildings & Halls Satisfaction Survey	*59%	*62%	60 - 65%	Planned & preventative maintenance program Well supervised cleaning & maintenance contracts
	Public Toilets	*49%	*51%	50 - 55%	Risk based reactive maintenance system

* RESULTS BASED ON THE BI-ANNUAL COMMUNITY PERCEPTION SURVEY

Financial

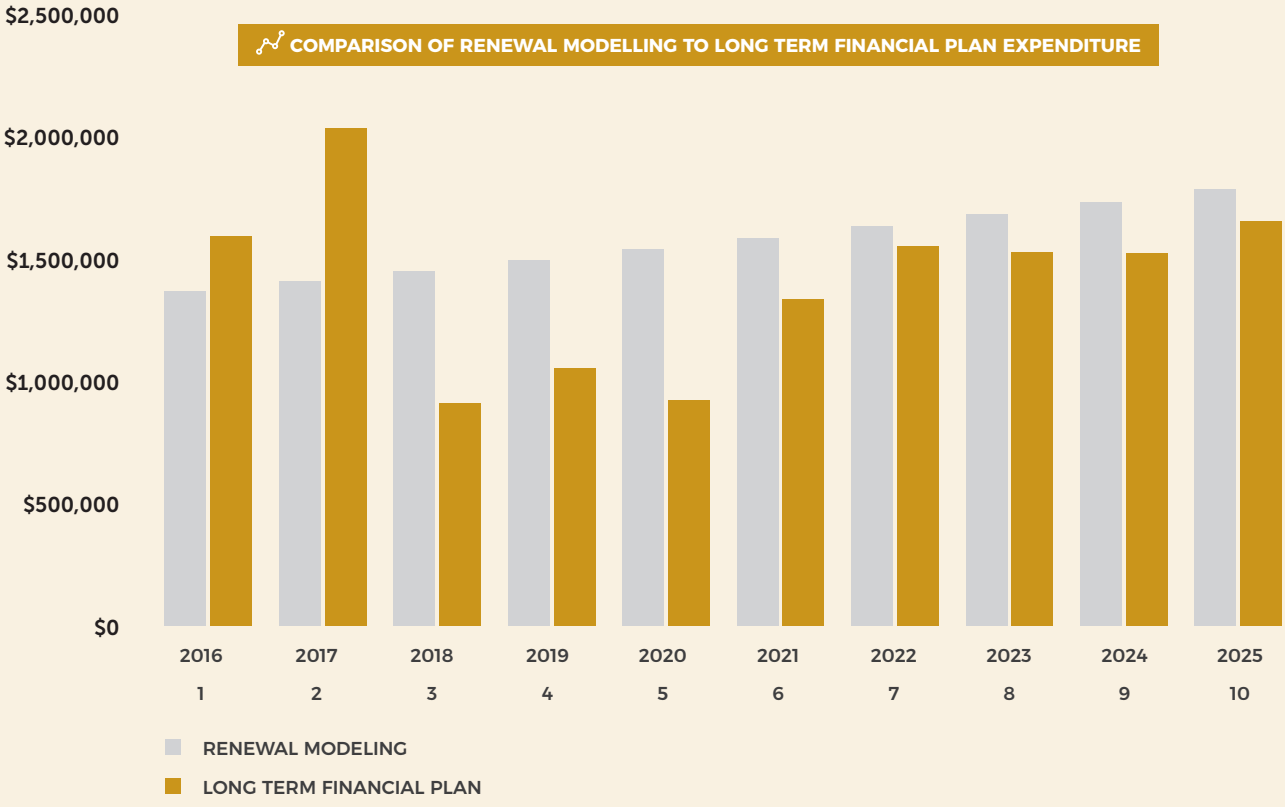
Using condition data, quantities, replacement costs, current spending levels and industry degradation curves, we annually model scenarios to optimise the renewal expenditure across individual asset groups. These modelling outcomes are used to inform the optimal level of spending required in the long term financial plan.

The proposed expenditure on building renewal in the long term financial plan is $1.4m per annum which is in-line with modelling predeictions.

The current maintenance budget for buildings is approximately $900,000 per annum which equates to 0.75% percentage against the capital value.

This figure is comparatively low for maintennce expenditure.

With the formalisation of preventative maintenance programs, more timely reactive maintenance and recently constructed buildings added to the inventory, this is expected to increase in the short term.



Our projects for the future

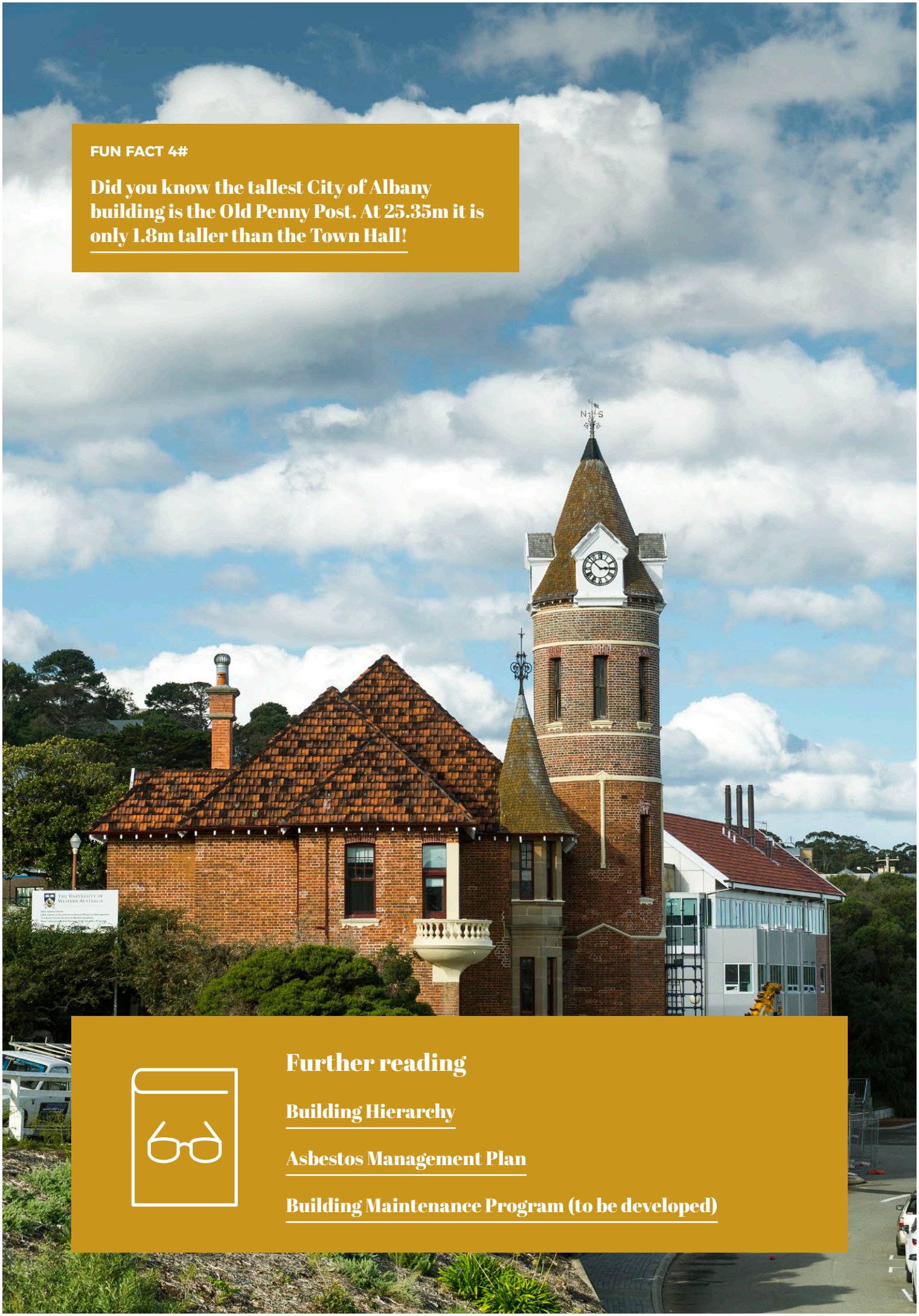
What is this project	What is the driver	When	Cost
Albany Town Hall repurpose	To increase the utilisation of this iconic building that has failed to thrive since the construction of the Albany Entertainment Centre	17/18	
Albany Public Library refurbishment and increase in function	To blend the fitout of the library to the new Information Hub extension, modernise the layout and provide more functionality	17/18	
Roof Replacements	The last major refurbishments of the heritage buildings were undertaken in the 80's and the Town Hall, Vancouver Arts Centre and Old Post Office are due for replacement. Also the old stadium roof at the Albany Leisure and Aquatic Centre is due for replacement.	17/18-19/20	

Threats

Threats	Description	Mitigation
Heritage Building	Heritage buildings make up 27% of the building portfolio. They are important in preserving local history and heritage values. The value in these buildings is in their preservation and this comes at a prohibitive cost in comparison to contemporary buildings.	Improved resourcing for capital works planning & delivery. Leveraging funds for preservation and re-purposing. Longer lead time for heritage projects for approvals & consultation.
Strategic Direction	Lack of strategic direction can cause deferrals in capital works creating higher maintenance costs and user dissatisfaction with the level of service.	Implementation of a structure to allocate responsibility for strategic direction through an Asset Owner.
Asbestos	Many of the buildings owned by the City contain asbestos materials.	Systematic removal of these materials with planned renewal projects.

Improvement Plan

- Roll out of SPM Assets (Asset Management System) to all Asset Owners and Asset Managers
- Completion of Asbestos register into SPM Assets and update the asbestos management plan
- In-house rolling condition assessments of all buildings



FUN FACT 4#

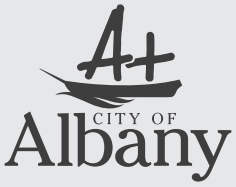
Did you know the tallest City of Albany building is the Old Penny Post. At 25.35m it is only 1.8m taller than the Town Hall!

Further reading

Building Hierarchy

Asbestos Management Plan

Building Maintenance Program (to be developed)


CITY OF
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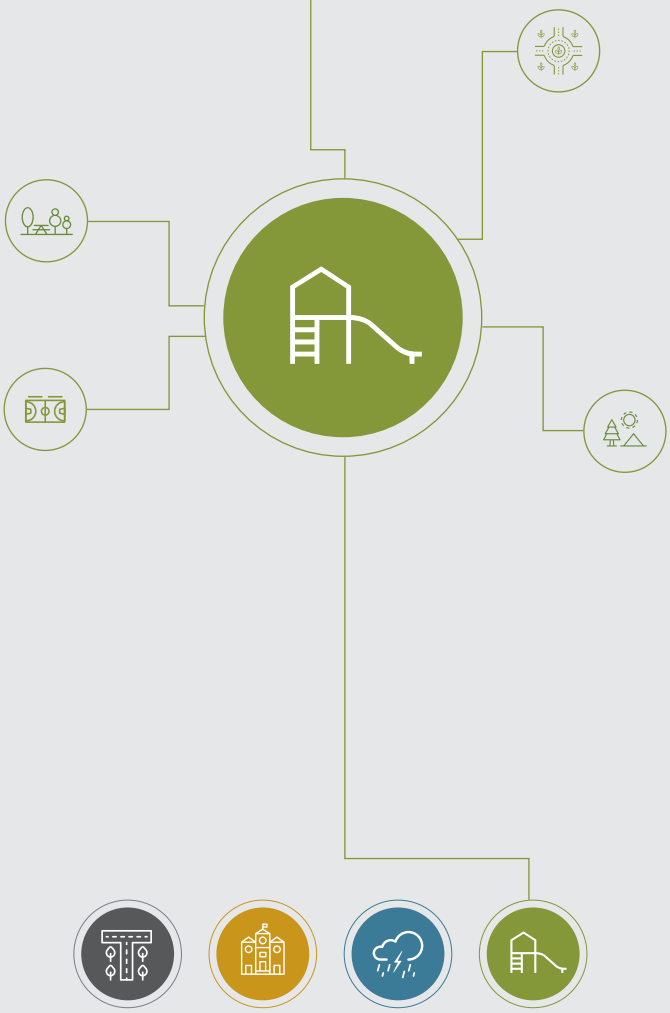
MANAGED SPACE

PART 4



TRANSPORT | BUILDING | STORM WATER | MANAGED SPACE

City of Albany

What we do

The City provides and preserves parks, sport & recreation areas and natural reserves as a service to the local community and visitors. Natural Spaces and Developed Space have a different purpose and require the application of different skills and priorities. For this reason, in this plan we group managed space into the categories of Developed and Natural Space with several functional sub groups as well.

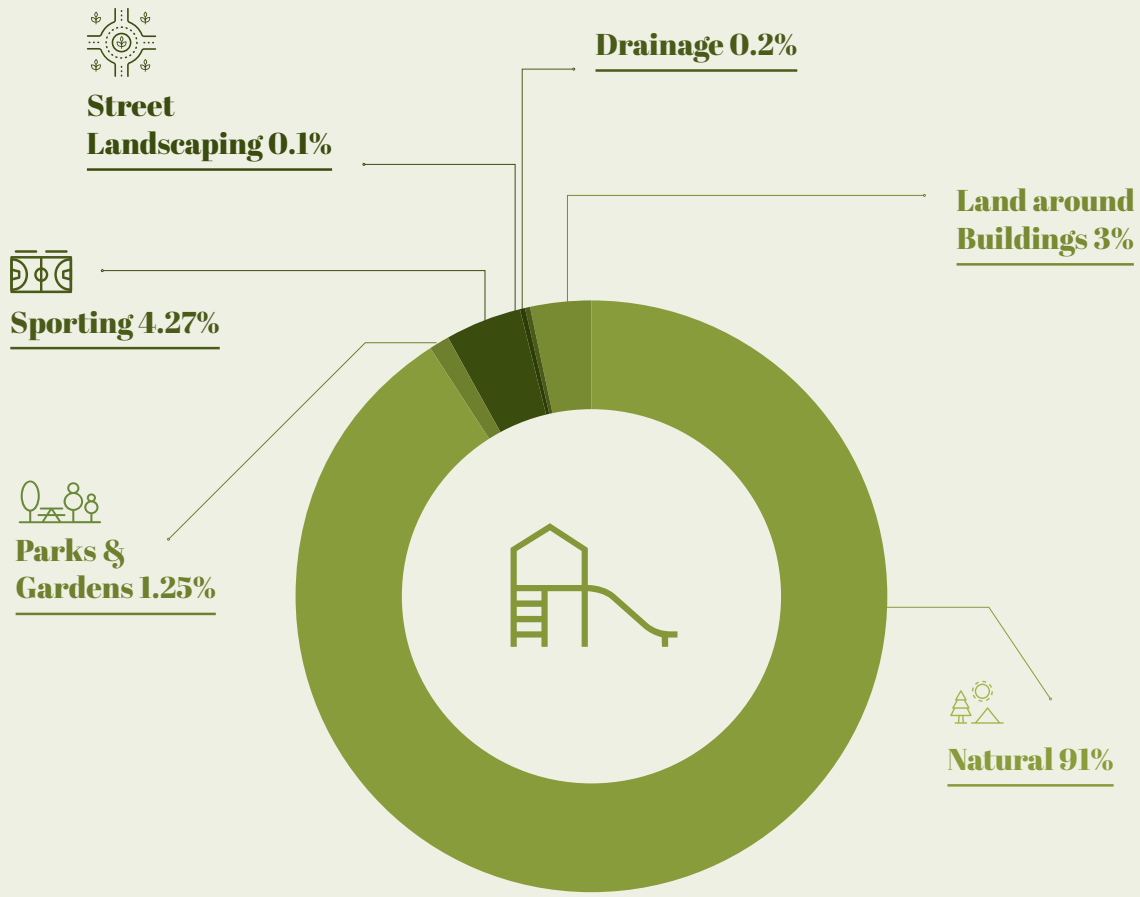
Developed managed space is typically in the urban environment and consists of recreation areas such as park & gardens, sporting precincts, land around buildings and street landscaping. These areas often have significant built assets associated with them including playground equipment, water features, landscaping, shade structures, lighting, paths and other amenities. These assets require inspection, maintenance and replacement at end of life. These developed spaces make up about 9% of the total managed space but are the most highly utilised by the community and the most expensive to maintain. Sporting facilities and parks & gardens are important contributors to the quality of life of residents in urban areas. We provide a very high level of service with recreational space and attracts a high level of satisfaction in the community perceptions survey.

Natural managed space includes our natural reserves over an area of 11,500 hectares and makes up 91% of the total managed space. Our natural reserves are significant assets for biodiversity of both flora & fauna, scenic beauty, local and visitor enjoyment, research, education and health. Management is a balance between preserving the natural environment and providing access to the community.

FUN FACT 1#

The City manages 3,100 m2 of managed space per resident

Managed Space



12,692 hectares

Why we do it

Developed & Natural managed space make the City more liveable and enhances the city's identity and character. The community has an emerging awareness of the economic, social and environmental benefits of our managed space.

The capital value of our managed space and the capital expenditure is quite low in comparison to buildings and infrastructure. However, the annual operating budget for Parks and Reserves is significant due to the nature of the asset.

Particularly in Developed Space the day to day cost of mowing lawns, weeding & planting gardens and replacing minor assets is significant.

A plan for both financial and environmental sustainability is the key to retaining our current levels of service in this area.

Community outcomes

- More equitable service levels across the City with developed managed space.
- Prioritisation of recreational services, facilities and access to natural reserves whilst maintaining bio-diversity, habitat and scenic value.
- Improved inspection, monitoring and replacement of built assets.
- Sustainably meeting the current and future needs of the community with sport and recreation space and facilities.

FUN FACT 2#

We have over 100 parks and gardens with over 40 playgrounds

Growth & Demand

The key to providing adequate and appropriate developed space for parks, recreation, sports and protecting Natural space is through good long term planning.

Integrating environmental and natural resource management with broader land use planning is a key objective in the Albany Local Planning Strategy review. Another objective of this review is to employ tactics to halt further urban sprawl. This will have the dual impact of protecting natural spaces and removing the need for more developed spaces in new subdivisions.

Developed space has been integrated into urban planning effectively through guidelines like Liveable Neighbourhoods possibly to the point of over servicing. This has been useful planning tool for managed space in developments. It does not prohibit the City from making alterations to reduce the cost of maintaining these assets after they inherited from a developer.

The Great Southern Regional Sport & Recreation Facilities Plan and the Albany Sport & Recreation Futures Plan will also provide guidance to meet the long term needs of the community in respect to sport and recreational needs.

It is important for us to be able to quantify the cost of managing these gifted assets over the long term. To ensure the City can afford to maintain the existing high service levels with the increasing number of parks and sporting facilities being provided.

Managing our space

To effectively manage our assets it is important to allocate a hierarchy for categorising and determining what level of service is most appropriate.

These categories have been aligned and are consistent with internal and external documents such as the Public Parkland Policy, review of the Albany Local Planning Strategy and Liveable Neighbourhoods (2015 draft).

There are four discrete categories

- Parks & Gardens
- Street Landscaping
- Sporting Spaces
- Natural Spaces

In addition, there are two other categories that allow for land around buildings and drainage reserves. These categories are managed in the Stormwater and Building Parts of the Strategic Asset Management Plan.

Details of the four categories are below;

Parks and Gardens

These are all considered Recreational spaces under Liveable Neighbourhoods and endeavour to provide informal activity space and encourage a variety of recreational activities to a diverse demographic of residents.

They have been categorised into four (4) levels:

Level 1 – Regional Space

Large reserves including Foreshore Space that have significant active area, high leisure, social and tourism function. Examples of this type of reserve are Middleton Beach and ANZAC Peace Park.

Level 2 – District Parks

A reserve designed for neighbourhood interaction encouraging sporting and social events. These reserves are often greater than 5ha in area and are accessible to the community to a distance of approximately 2km.

District Parks are designed to service a cluster of neighbourhoods and need to be accessible by an arterial network and preferably by public transport. Having a District Park servicing multiple neighbourhoods will not lessen the level of service provided within these reserves, it will however reduce the City's number of reserves and therefore reducing the maintenance effort and cost associated with extra reserves.

Level 3 – Neighbourhood Parks

Neighbourhood Parks serve a recreational and social purpose for the entire neighbourhood. Ideally located at the edge or between neighbourhoods, providing a variety of options to the local community. These parks are between 1ha and 5ha and service to a distance of 800 metres.

Level 4 – Local Parks

Local Parks accommodate daily recreation for the local community. Primarily designed for nature space and passive recreation dispersed throughout the neighbourhood. They are up to 1ha in area and within 300m of all dwellings.

Street Landscaping

Street landscaping is defined as the managed space that falls within the road reserve but does not include transport assets such as footpaths and roadways. This includes verge, median and roundabout landscaping. It has been split into two service levels.

Level 1 – Regional Precincts & High

Regional Precincts that serve significant social and tourism function. Examples include CBD, Middleton Beach and the Waterfront.

Level 2 – High profile City of Albany maintained verges and median strips

Typically on roads serving a regional distributor function. Examples include Albany Highway verges and Chesterpass Road.

Level 3 – Adjacent property verges and low profile median strips

The City will serve a compliance function only with regards to construction and maintenance of these spaces.

Sporting Spaces

Sports spaces provide a venue for more structured sporting activities and include the required infrastructure for those activities.

Meeting the required standards for training and competition, efficient layout for maximum utilisation of fields and be located with some informal or natural recreation areas.

Sporting spaces have been grouped into 2 categories:

Level 1 – Regional Facility

A sports facility, either with a single purpose or a community sporting hub, of regional significance. Due to its location and characteristics it attracts users across multiple council areas.

It meets the standards as defined by the state sporting organisation required to host major regional and state level competitions, events and/or training.

Level 2 – Local Facility

A local sports facility is generally located within 5 kilometres of users, consisting of up to two playing fields, and provides for limited training and/or junior or amateur senior competition.

Natural Spaces

Natural reserve managed space is undeveloped reserves that may have discrete nodes of infrastructure to accommodate visitation.

Categories have been defined to allow for the grouping of reserves that have similar management requirements. The four categories are:

- Coastal reserves;
- Watercourse and foreshore reserves;
- Mounts reserves; and
- Hinterland reserves.

The City will apply criteria, scoring and weighting values for existing and planned elements and activities in reserves for the following:

- Environmental Values;
- Social and Cultural Values; and
- Economic Values.

The criteria has been designed to prioritise the expenditure on existing and planned elements in natural reserves across the criteria of environmental, social & cultural and economic values. By using weighted criteria in the above areas sound asset management principles are being applied in strategic and operational plans.

Reserves are complex assets, so planning, community engagement, systematic implementation and maintenance is the key to managing reserves sustainably.

The full details of the priority ranking criteria are documented in the *Natural Reserves Hierarchy*.

DID YOU KNOW

You can fit over 6,000 full sized ovals into our managed space

Built Assets

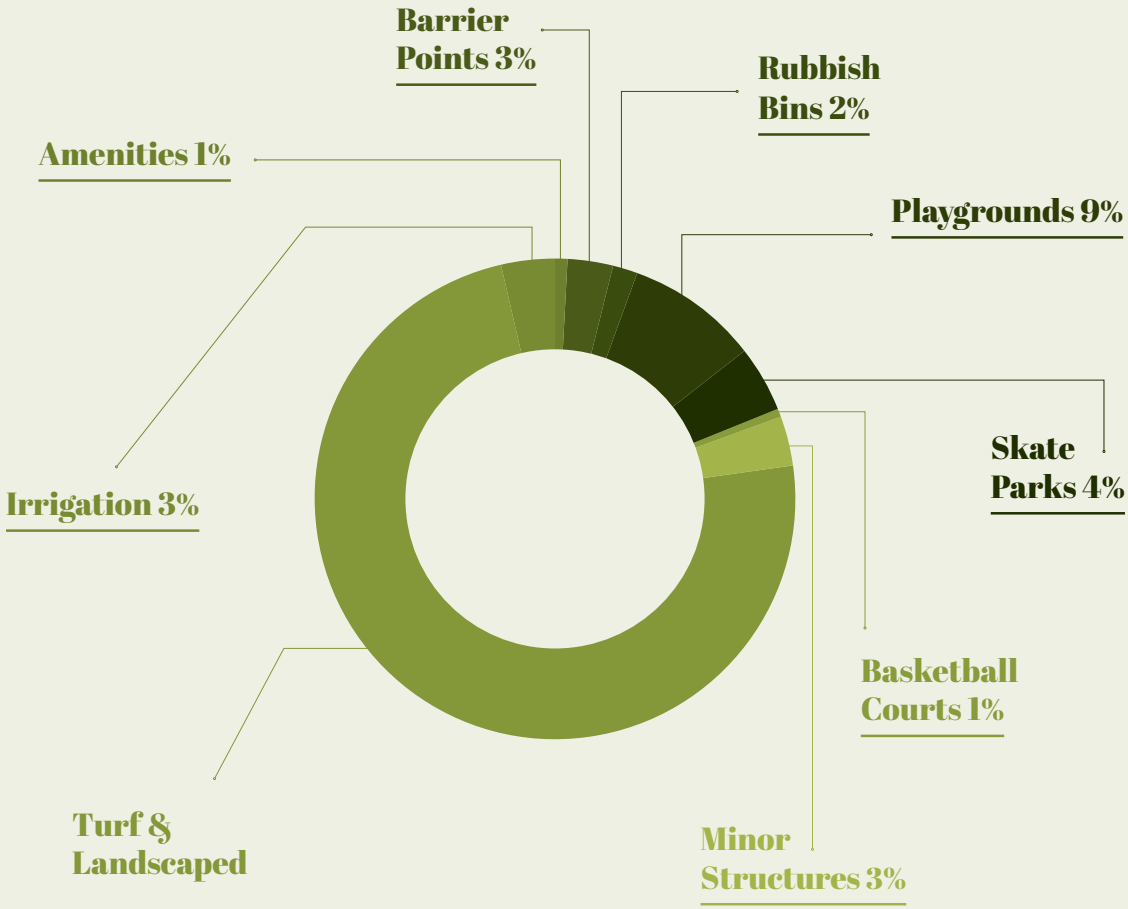
The City manages a vast quantity of developed and natural reserves, each of these has a built component that requires maintenance and renewal.

Built assets are captured in the Albany Spatial Data Specification (ASDS) a few features are listed below;

- Amenities – barbeques, furniture.
- Arts & Memorials
- Bollards, Walls & Fences
- Public Bins
- Information Signage
- Reticulation
- Trails
- Play equipment
- Park & Sports Lighting
- Play areas
- Sports Fields
- Terrain & Trees

The majority of the capital value is in the landscaped and turfed areas being developed (74%). However, there are transport and building assets that are valued and managed in other Parts of this plan, such as footpaths and public toilets.

Most of the assets in the managed space are relatively inexpensive but they also have relatively short lives. Therefore the replacement of these assets are generally undertaken as maintenance rather than capital works, which impacts on the operational budget.



MANAGED SPACE BUILT ASSETS

$28,251,738

Condition

The value of built assets or non-green assets on Managed Space is valued at approximately $28m.

Below is a bar graph showing the overall condition profile of these assets. Note there are 17% of assets in poor or approaching poor condition. This is a much higher percentage than would be acceptable for other asset classes. However, due to the short lives of these assets in comparison to roads and buildings a higher percentage is to be expected. Reducing or maintaining this level of condition is considered appropriate given the value in poor condition is approximately $1.7 million.

Maintenance

Maintenance of our green and built assets is where the majority of the expenditure occurs in this asset class.

Therefore, any measure to improve the prioritisation and optimisation of maintenance work will provide the most benefit. The first step is to map the hierarchy and existing levels of service for developed and natural reserves. This shall be followed by an audit of where the service levels do not match the hierarchy. This will allow us to measure the cost variations with a shift in level of service up or down.

This information will form the basis for the development of a Maintenance Plan that will document every planned maintenance activity such as mowing, turf maintenance, fertilising, weed management, slashing, planting, mulching, pruning, irrigation, playground inspection and rubbish management. Including the frequency, cost, specification and any seasonal variations of these activities.

FUN FACT 3#

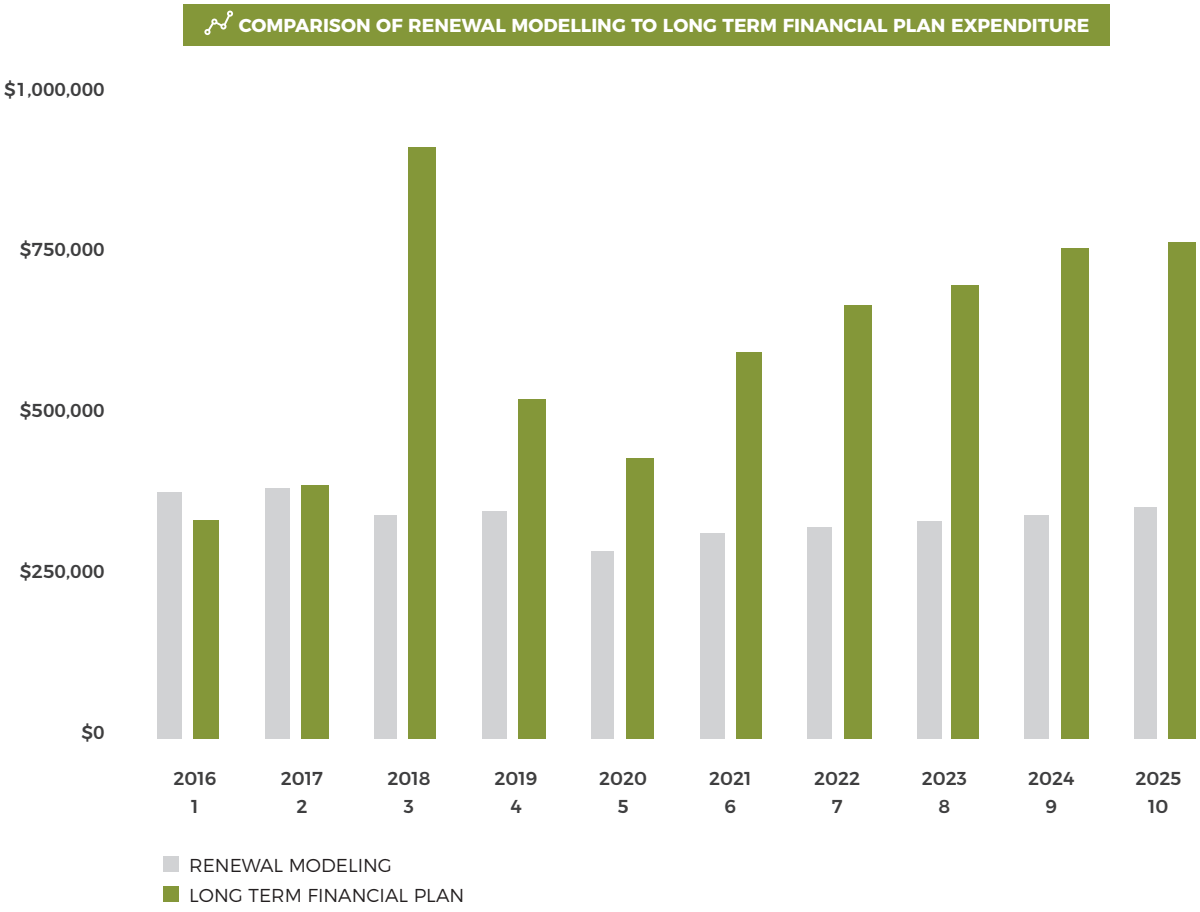
City of Albany Lawn mowers cover 30,000km per year. A straight line from Albany to London and back!

Financial

The replacement value of our managed space is only 4% of the City's asset base and we spend approximately 7% in the capital budget each year.

As mentioned, managed space is financially significant in its annual operations budget. The annual operations budget for Parks and Reserves is on average $4.5m which is approaching 13% of total rates income.

Renewal modelling is only conducted on the built assets which explains some of the variance between the renewal model proposed and the long term financial plan expenditure. The expenditure in the long term financial plan will include redevelopment of some green assets and potentially other infrastructure that sits in managed space that is modelled in other asset classes. Given the increasing level of satisfaction in the community perception surveys for Playgrounds, Parks & Reserves we need to continue to monitor perciptions to ensure we are not overinvesting in this asset class.



Our projects for the future

What is the project	What is the driver	When	Cost
Middleton Beach Redevelopment	Hotel development application requiring changes to road layout, parking Seawall and Landscaping	19/20	$3.5m
Emu Point Upgrades	Staged works to enhance & preserve coastal area	18/19-21/22	$900k
Mt Melville	Feasibility Study to determine works	19/20-21/22	$300k

Levels of service

Operational levels of service for managed space are currently undocumented. Developing this document is part of the improvement plan.

Level of Service	How we measure performance	Previous Years		Target	How we will meet the performance target
		2015	2017	2019	
Built assets will be in good condition in both Developed and Natural Managed Space	% of asset value over intervention level	NEW	**6%	**5%	Renewal budget allowance driven by renewal modelling based on condition Prioritised based on the hierarchy of the managed space
Sporting grounds will be multi-use, functional and appropriately maintained	Sport & Recreation facilities satisfaction score	*65%	*75%	70 - 75%	Completion of Centennial Park Sporting Precinct East and Central. Maintenance programs in line with levels of service and hierarchy NB: The 2017 results may be artificially inflated due to the upgrades at Centennial Park. The target has been kept above the LG Average.
Our developed space will be accessible, safe and appropriately maintained	Playgrounds, Parks & Reserves satisfaction score	*62%	*73%	*70 - 75%	Maintenance programs in line with levels of service and hierarchy Community engagement at renewal to ensure the facilities are appropriate for the current and emerging demographic of the area
Our natural space is protected and accessible where appropriate to the ranking	Management of Coastal & foreshore areas satisfaction score	*59%	*59%	*60 - 65%	Identify and populate 10 Year plan with outstanding actions from natural reserve plans Community education Management programs to be created to be in line with priority levels
Quality streetscapes designed to be maintained efficiently	Streetscapes satisfaction score	*58%	*60%	*60 - 65%	Maintenance programs in line with levels of service and hierarchy

* RESULTS BASED ON THE BI-ANNUAL COMMUNITY PERCEPTION SURVEY
** BASED ON AN AGREED CONDITION INTERVENTION LEVEL USUALLY 4 (1 - 5 SCALE) DEPENDENT ON HIERARCHY

Threats to managed space

Threat	Description	Mitigation
Conflicts of user groups	Multiple users of managed space, all with competing priorities and needs can result in both community dissatisfaction and poor management.	Quality consultation during master planning and management plans. Promotion of the benefits of shared use such as improved likelihood of funding grants, shared costs, better facilities.
Development levels of service	What is built on managed space and how it is designed during a development has an ongoing and significant impact on operational budgets.	Introduction of maximum development levels of service based on hierarchy with input from the Asset Management Working Group
Equity of Service Levels	Current levels of service may not be consistent across the City. Any proposed changes to levels of service will need to be carefully managed.	Mapping of hierarchy and current levels of service with Council approval of any changes.

Improvement Plan

Developed Reserves Strategy

Hierarchy identification for all classifications of Managed Space

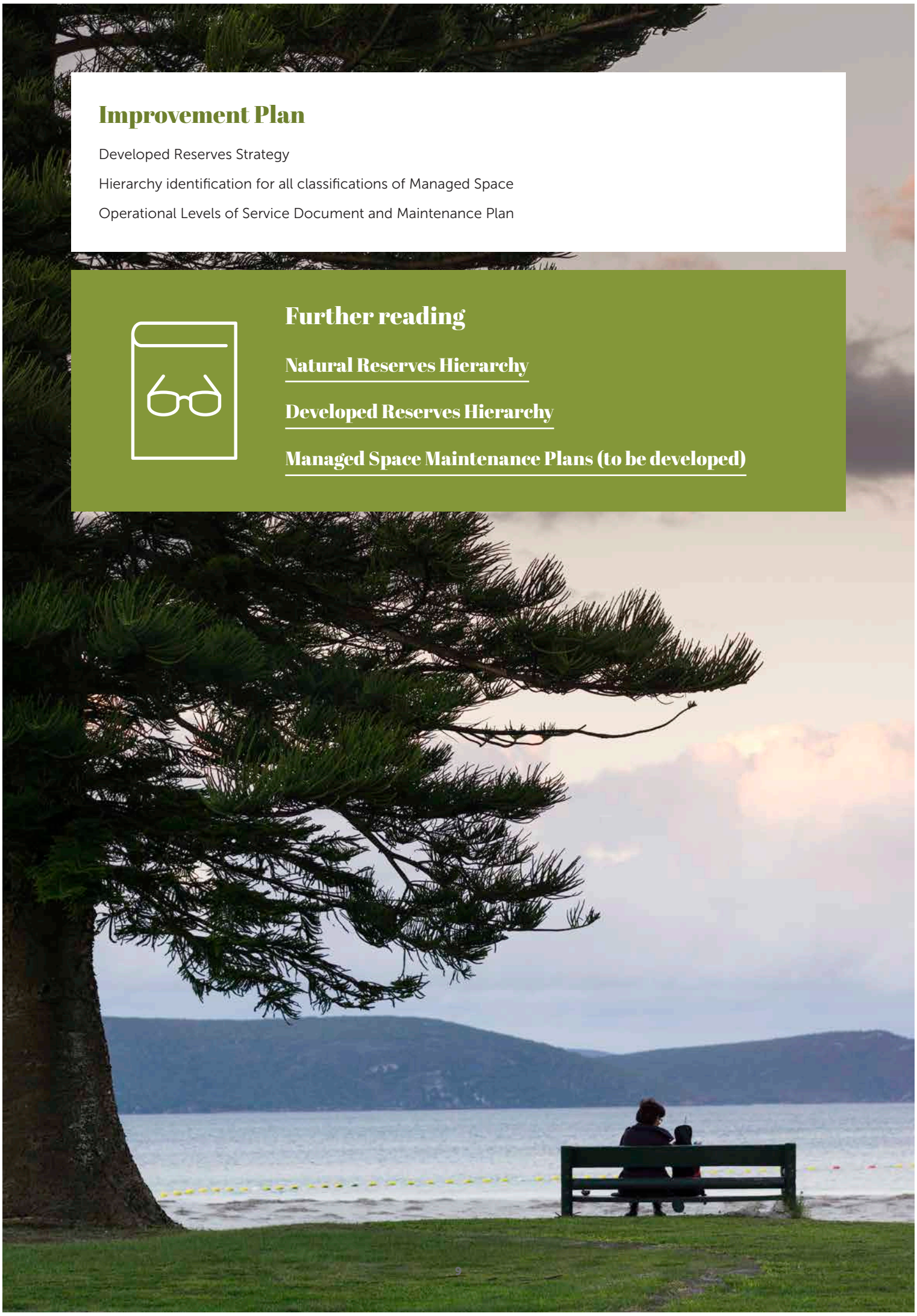
Operational Levels of Service Document and Maintenance Plan

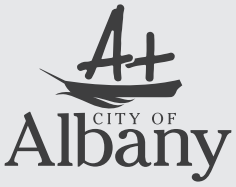
Further reading

Natural Reserves Hierarchy

Developed Reserves Hierarchy

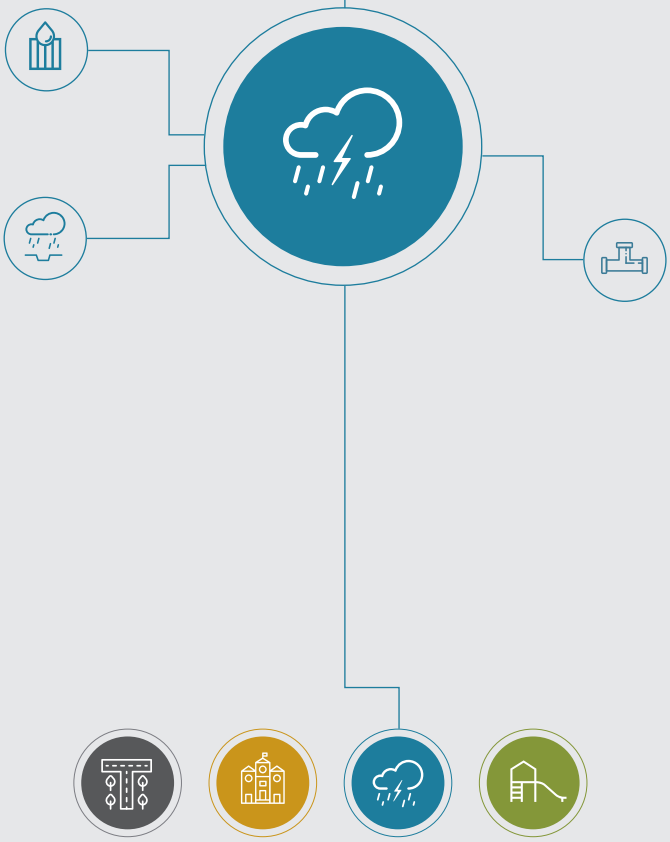
Managed Space Maintenance Plans (to be developed)




CITY OF
Albany

STORM WATER

PART 3



TRANSPORT | BUILDING | STORM WATER | MANAGED SPACE

City of Albany

What we do

Albany has an urban drainage system that collects and conveys stormwater to outfall expediently and safely with minimal disturbance. We manage the network for the safety of our community members whilst aiming to minimise damage to property, infrastructure and the natural environment.

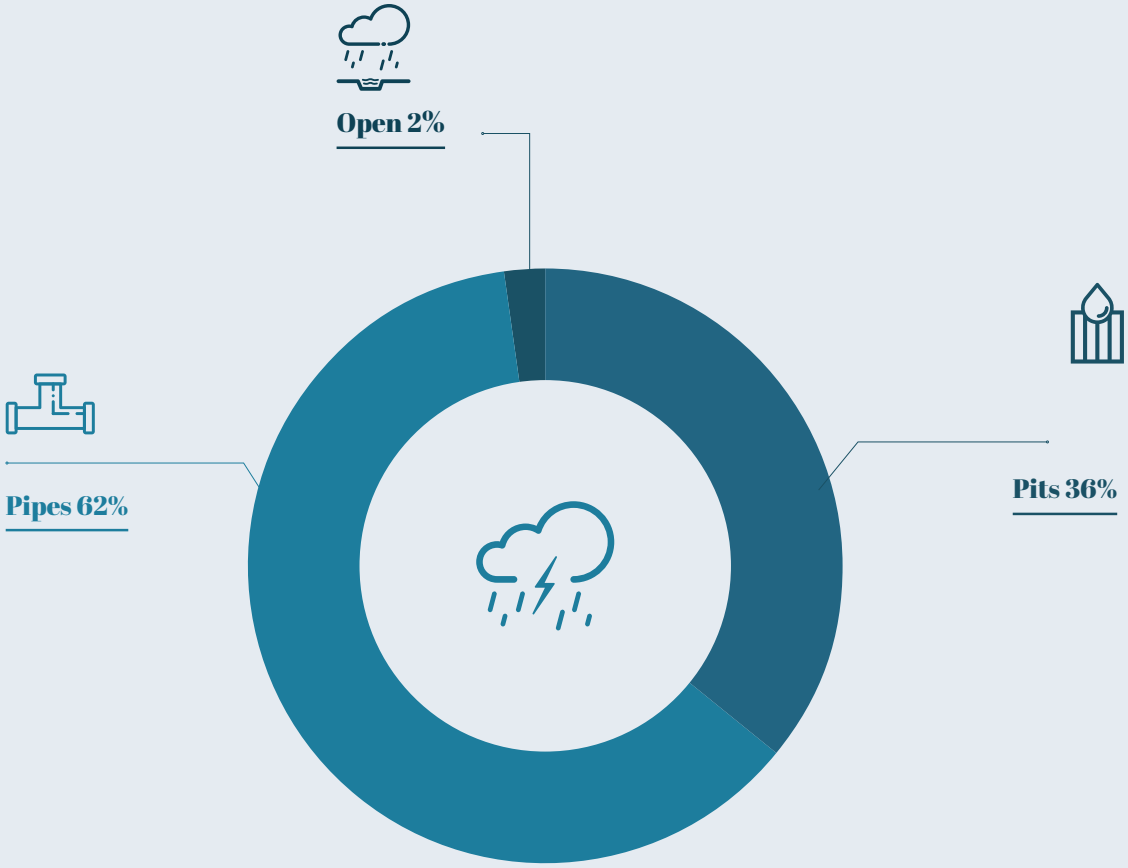
Our City Maintenance staff perform scheduled and unscheduled maintenance and repair work. Routine renewal of aging assets is increasing, proportionate to the growth of our City. This requires long term forecasting and planning.

This forward planning horizon needs to consider the changing climate and the increasing volumes of stormwater from a growing urban footprint. Becoming not only a question of the estimated remaining life based on condition but also based on capacity.

FUN FACT 1#

Our stormwater network, laid end to end, would stretch from Albany to Perth!

Stormwater



TOTAL VALUE

$76,723,180

Why we do it

The stormwater management strategy is based on three principles;

- Protect private and public infrastructure,
- Manage public safety and
- Protect environmental assets,

from the effects of uncontrolled flood and storm waters.

Our system is designed to collect and convey stormwater principally from our road network to ensure road safety. As many soils in Albany town site are not conducive to high infiltration, the City also provides an overflow system for private roof and property drainage. The City aims to provide a reticulated system capable of managing a storm intensity that would occur one in every 5 years.

We manage a stormwater network to provide the maximum safety and protection to people and property at the least cost achievable, to the community. Another priority is to minimise the expulsion of pollutants into our natural waterways.

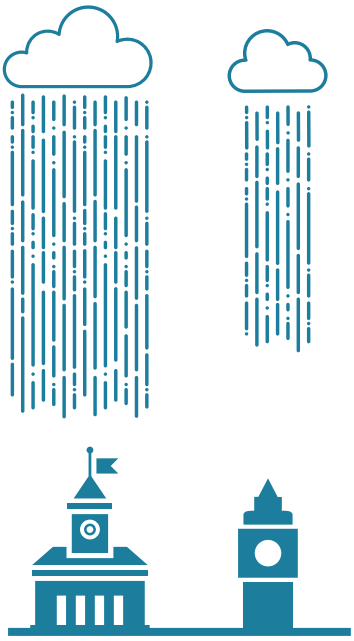
For the stormwater network to be as effective as possible it also requires a vigilant and timely inspection and maintenance regime to maximise the capacity of water flow in an event.

Community outcomes

- A continuously improving understanding of stormwater overland flooding routes and areas of high risk.
- Seeking to improve the health of our catchments and waterways and the habitats for flora and fauna.
- The maintenance, servicing and renewal of stormwater assets are environmentally & financially sustainable.

FUN FACT 2#

Did you know Albany has approximately 60% more rain than London and rains on average 10 days a year more often.



Growth & demand

City drainage assets are most often passed to the City at the completion of private developments. Whilst new areas may be designed and built to contemporary legislative and environmental standards many older areas do not meet these standards.

The City is required to upgrade existing distributor and trunk drainage systems with increased development. This development whether "infill' development or new greenfield developments is connected and impacts on larger trunk drainage systems such as Yakamia Creek and Parker Brook catchments.

The Albany town site was developed over a number of decades where open drainage was accepted as suitable infrastructure. As community expectations change, some areas of Albany have been upgraded with kerb and pipe drainage systems. In many of these areas, the systems were sized for lower density housing and now cannot manage current storm capacity targets.

As pipes reach the end of service life, the City evaluates the need for resizing pipe systems to manage infill development with higher density housing and fully paved road infrastructure of later development.

Current expectations from landholders living with open drains within the town site is that open drains should be retrofitted with pipes and roads kerbed. As infill drainage is expensive and not always necessary, not all areas will be upgraded in this way. An alternate open swales and infill policy will be developed to manage the competing demands for infrastructure upgrades.

Managing our Stormwater

To manage the stormwater network we need to gather key information. The critical areas for stormwater management are understanding the hierarchy, having parameters around performance, measuring the risk of failure, the condition of the network components and maintenance planning.

STORMWATER ASSET HIERARCHY

"Not all stormwater assets are created equal"

Stormwater assets are prioritised in relation to their function within the stormwater network.

Roof and property drainage

Normally the landholder is responsible for their own stormwater plumbing in accordance with the City's developmental guidelines. Subject to certain conditions, the City of Albany allows landholders to dispose of their stormwater into the City's road drainage network.

Street Drainage

Pipes and pits that pick up road and residential stormwater and carry this water to collector drains. Street drainage is normally sized to handle a 1:5 year storm event. Overland flow normally within the road carriageway is used to convey larger storm events.

Collector Drainage

Large pipes that collect water from suburbs and convey it to trunk drainage. These pipes are often within their own alignments 'off street' and are important to maintain. The consequence of pipe failure, at this level, can be damage to infrastructure. Some of these drains are open channels.

Trunk Drainage

Trunks are major drains that are normally located in the valley floors. Most often open, trunks drainage convey large volumes of stormwater through the length of the catchment. Trunk drainage normally requires high cost culvert assets across roads and design considerations need to include public safety and incidents of flooding. Examples of trunk drainage are Yakamia Creek and Parker Brook.

STORMWATER PERFORMANCE RISK ASSESSMENT CATEGORIES

The performance of stormwater pipe assets have been assessed and rated against criteria that aligns with the three principles of protection of infrastructure, public safety and protection of environmental assets.

This performance rating identifies underperforming drainage assets and allows for a system of rating that can inform and prioritis future financial investment. The criteria tabled below describes the performance issue against rating.

FIGURE 2 - RISK PRIORITY MATRIX

Issue	Description	Priority Rating
Minor event issues (5 year ARI)		
A	Flow through private property (minor event)	1
B	Unsafe gutter flow (minor event)	3
C	Risk of flood inundation to properties (minor event)	2
D	Open drainage with erosive velocity (minor event)	3
E	Pipe capacity insufficient causing gutter flow	5
F	Overtopping or inundation of roadway (minor event)	2
Major event issues (100 year ARI)		
G	Flow through private property (major event)	2
H	Risk of flood inundation to properties (major event)	3
I	Unsafe gutter flow (major event)	4
J	Open drainage with erosive velocity (major event)	4
K	Overtopping or inundation of roadway (major event)	3

STORMWATER ASSET CONDITION

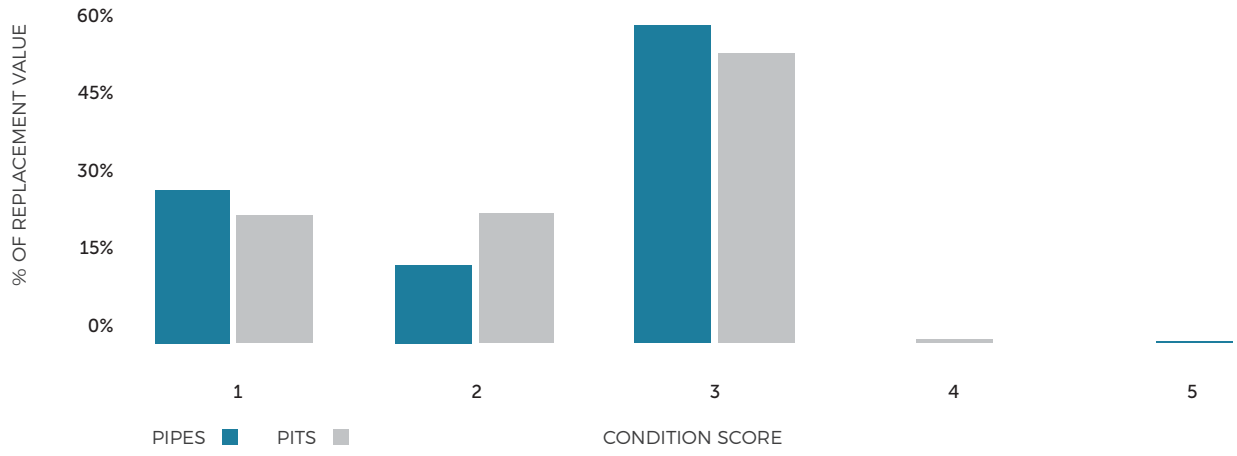
The condition of stormwater assets can impact on public safety and the overall performance of the system. It is important to monitor and identify the condition of stormwater assets in a regular cycle of review, repair and renewal. This is problematic as the greatest volume of stormwater assets are underground.

Our professional observations indicate we have many maturing drainage assets that will require replacement in the next 20 years. Currently the City does not have adequate knowledge of the condition of these assets to make fully informed renewal plans.

Although this data collection is occurring to some degree, it is currently more ad-hoc than strategic. A clear and resourced strategy for data collection for this critical asset group is required to improve confidence in forward capital works predictions.

Below is a graph of the current assumed condition profile of pipe and pit assets in the City. This profile indicates between 50 – 60% of these assets are halfway through their life based on an 80 year life. Given recent evidence of premature pipe failures this suggests we have a potential risk to half the pipe network in the short term. This supports the need to implement a strategy for condition data collection based on the hierarchal level of the asset, as a high priority.

FIGURE 3 - STORMWATER CONDITION PROFILE



STORMWATER MAINTENANCE

In general, maintenance of our stormwater assets is inconsistent and as a result more likely to be reactive to failures rather than proactive.

The goal is to balance preventative maintenance with reactive maintenance expenditure to reduce the overall cost of maintenance. There are many benefits to implementing preventative maintenance activities which provide positive financial and performance outcomes.

Preventative maintenance activities would include maintaining open drains, unblocking and clearing of pits, and replacing pits and pit lids at the end of life. Most pipe repairs would fall into capital works programs.

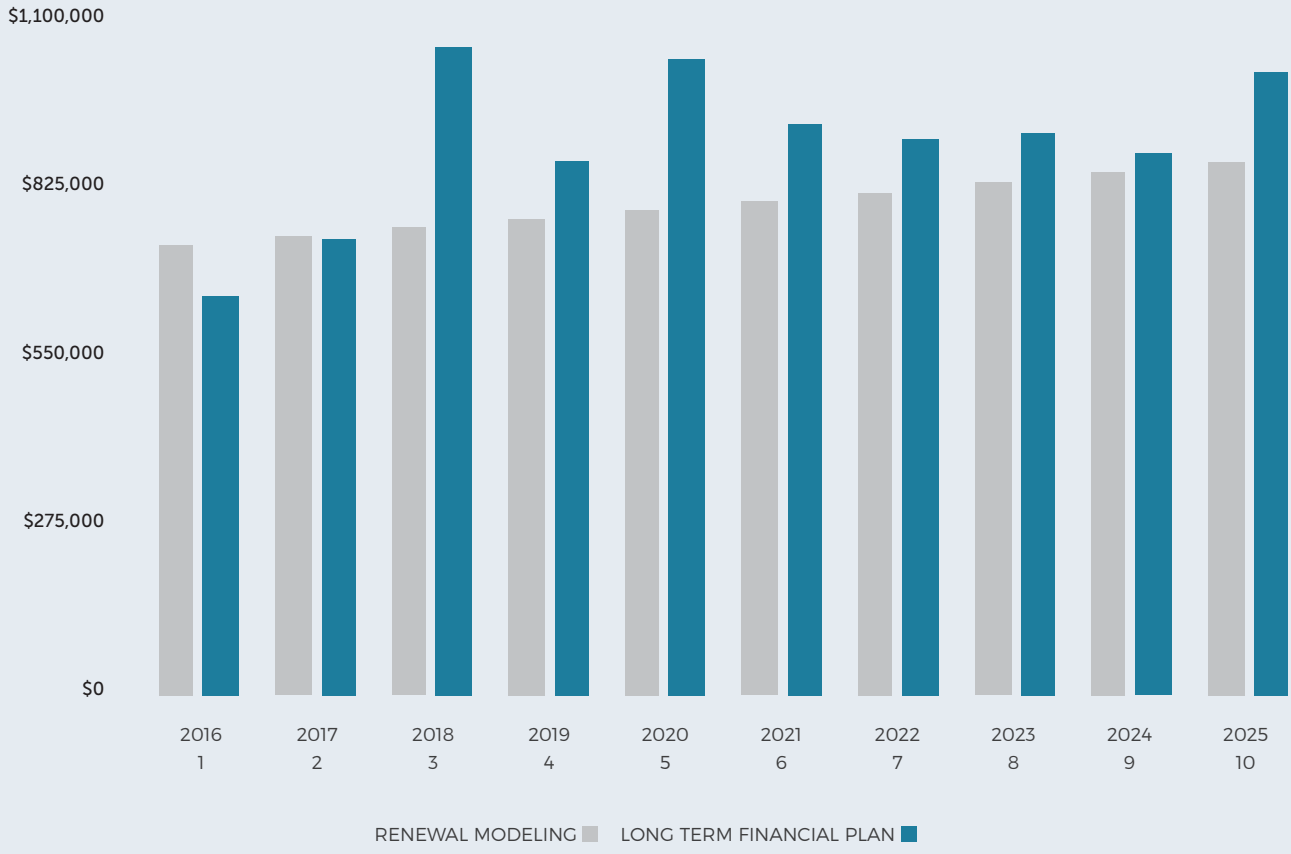
The creation and implementation of a stormwater maintenance program is an improvement listed in this plan. The maintenance program will be a registered document and will include all maintenance activities, specifications for repairs, risk matrix for prioritising works, frequency and a strategy for the allocation of resources.

Financial

The City of Albany has spent an average of $117,000 per annum on maintenance and an average of $1,500,000 per annum on capital works projects over the last 3 years. The current renewal modelling is indicating a minimum of $700,000 per annum averaged over the next 10 year horizon. The next iterations of renewal modelling with more data confidence is likely to vary from the expenditure predictions in the graph below.

Confidence of condition data for stormwater infrastructure is generally lower than other infrastructure asset classes due to it being difficult and expensive to survey. Where both condition, age and material are assumed, renewal modelling accuracy is compromised. This information can be improved, commencing with a tactical CCTV assessment approach and desktop analysis of development dates.

COMPARISON OF RENEWAL MODELLING TO LONG TERM FINANCIAL PLAN EXPENDITURE



Our projects for the future

What is the project	What is the driver	When	Cost
LeGrande Avenue Bioretention Basins	Rapid expansion in the new suburb of McKail has led to the need for an attenuation and nutrient stripping basin located on LeGrande Ave	Funding dependent	$1m
Yakamia Creek Bioretention and Attenuation Basins	Two basins to be built to meet both industrial pollutant and attenuation and biofiltration and attenuation of stormwater within the Centennial Park Precinct	18/19	$1m
Stormwater Renewal and Upgrades to Bayonet Head Flood zones	Protection of residential property on Bayonet Head Road from ongoing flood damage during heavy rainfall events as part of an integrated upgrade of the urban catchment	19/20	$1m

Levels of service

Level of Service	How we measure performance	Previous Years		Targets	How we will meet the performance target
		2015	2017	2019	
The City will have an effective stormwater system that manages a 1:5 year rainstorm	Predicted number of properties impacted by a 1:5 event	New	2%*	< 2%*	Adequate stormwater prerequisites in developments
We will have safe overland flood routing that does not enter habitable buildings to cause danger to residents properties in storms greater than 1:5 recurrence intervals	Predicted number of habitable buildings impacted by a greater than 1:5 event	New	4.1%*	<4%*	Timely upgrade of the network with infill development
Stormwater assets will be in a condition appropriate to the hierarchy	% of stormwater value of assets over intervention	New	<1%**	<2%**	Renewal prioritised based on hierarchy and level of risk of failure
We will seek to treat stormwater to remove gross pollutants and dissolved contaminants before water is discharged into Albany waterways.	Number of projects to improve water quality completed			1	Be project ready and actively seek funding as the opportunities arise
Residents will be satisfied with the function and overall performance of the stormwater system	Stormwater Drainage Satisfaction Survey	*52%	*53%	>56% to meet the LG Average	Devising and resourcing an appropriate preventative maintenance and risk based reactive maintenance programs Improved education and awareness

* RESULTS BASED ON NO. OF URBAN ASSESSMENT NUMBERS IN MODDELLED AREA

** BASED ON AN AGREED CONDITION INTERVENTION LEVEL USUALLY 4 (1 - 5 SCALE) DEPENDENT ON HIERARCHY

Major Threats

Threat	Description	Mitigation
Drainage product failure	Non-conforming quality assured manufacturing processes has resulted in premature product failure at 25-50 years. Many road drainage systems where installed or retrofitted in older suburbs with these poor quality pipe materials resulting in a degrading pipe system and an unplanned growing liability.	Identify failing pipes through implementation of a CCTV strategy and plan for earlier replacement based on hierarchy.
Extreme rainfall events	Rainfall events that have exceeded pipe design capacity have occurred numerous times in the last 10 years. This mainly occurs where smaller catchments may experience high intensity rainfall 'cloudburst' that subject the catchment or a street to higher than average rainfall. This leads to 'localised flooding'. The City of Albany has experienced a greater number of intense storms in the last 10 years than is statistically probable.	Whilst extreme weather events are outside the control of the City we mitigate the impacts by adopting design criteria that directs stormwater that exceeds the piped system into overland floor routes of least risk to property and the public. The City also responds to events with a coordinated storm response plan.

Improvement Plan

To develop and fund a targeted and ongoing stormwater condition & CCTV Strategy.

Drainage Upgrades to meet contemporary standards and increasing capacity through a suite of Stormwater Guidelines including:

- Urban open drains,
- Kerbs & drainage in Special Residential and Special Rural Zones and
- Stormwater management on private land

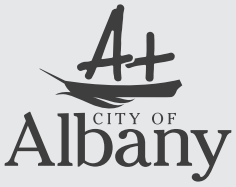
Develop a planned and preventative maintenance program to document maintenance service levels.

Further reading

Stormwater Management Strategy (in final stages)

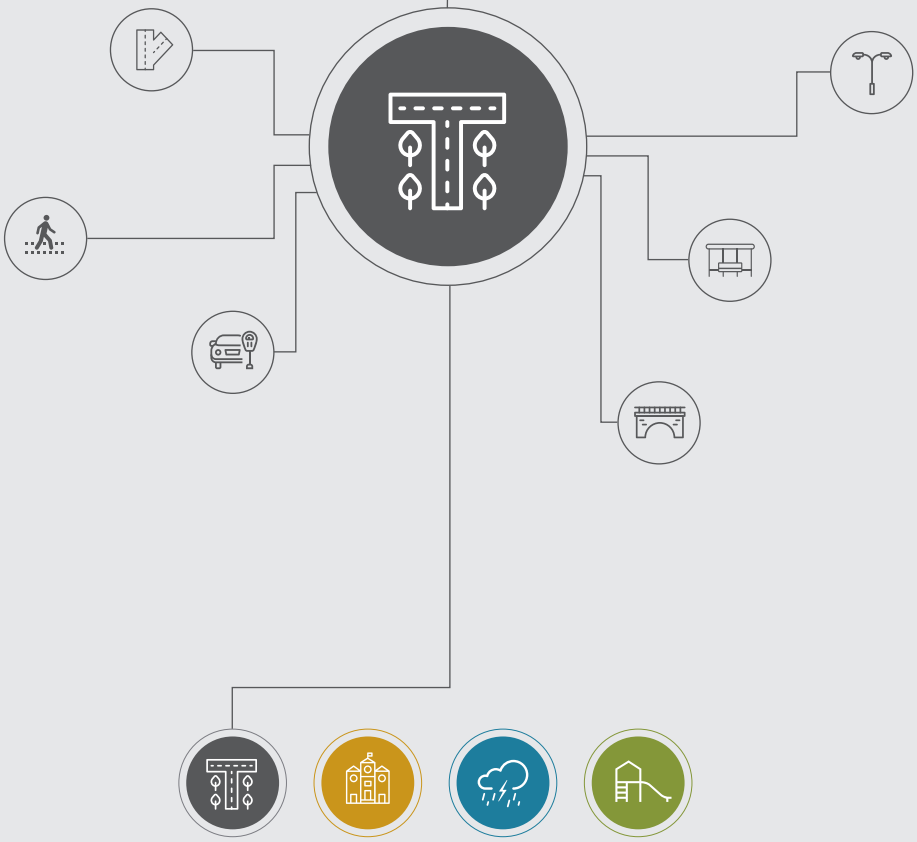
Stormwater Condition & CCTV Strategy (to be developed)

Stormwater Maintenance Program (to be developed)


CITY OF
Albany

TRANSPORT

PART 1



TRANSPORT | BUILDING | STORM WATER | MANAGED SPACE

CITY OF Albany

What we do

Transport networks such as roads and paths link us to work, recreation and essential services. The quality of transport infrastructure can be linked to the health and prosperity of the community they service.

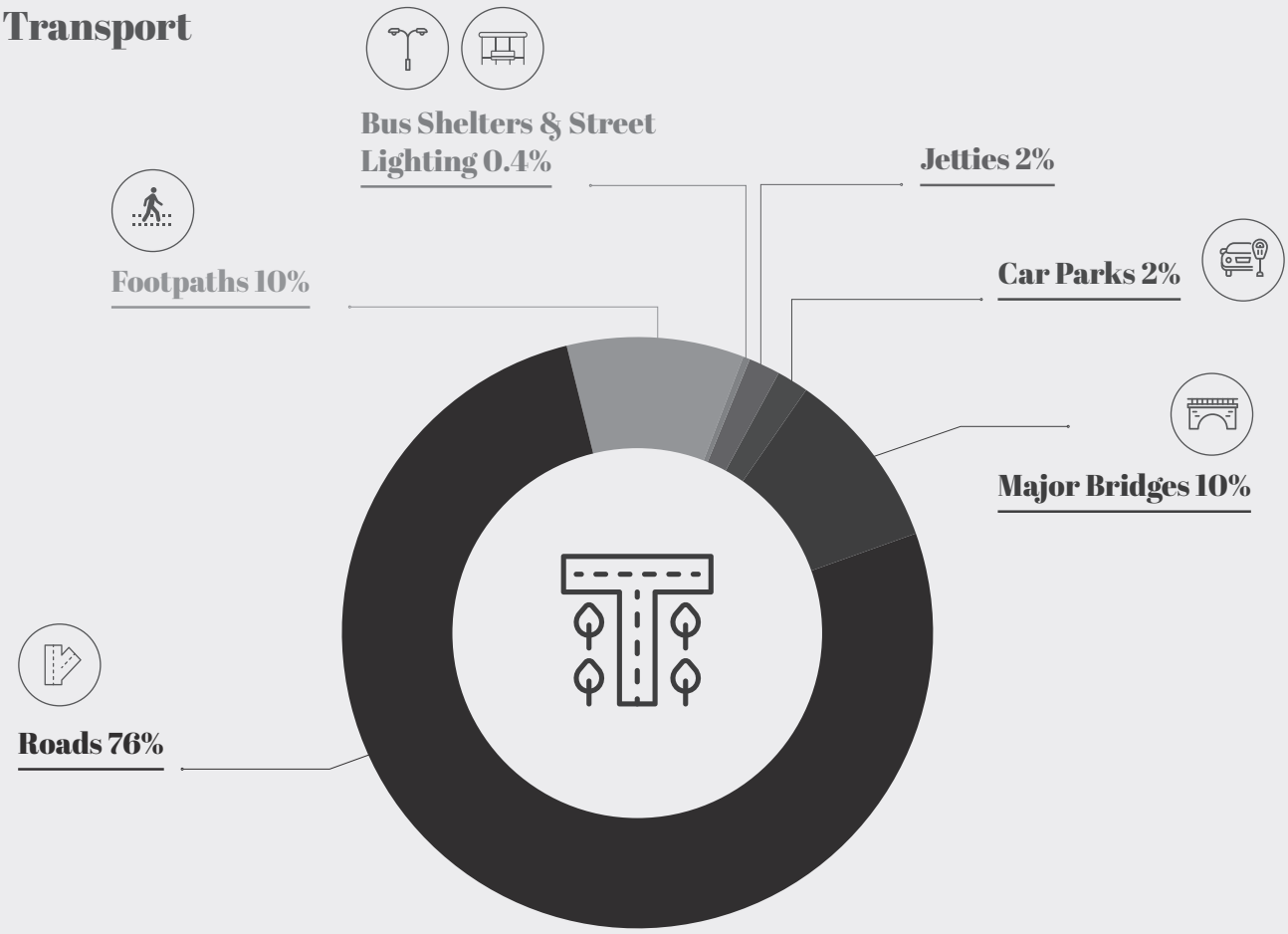
The Transport network is by far the largest asset class in both value and quantity, making up 66% of the total asset base. Transport assets include 1559km of formalised roads including sealed and gravel roads in almost equal quantities. This asset class also includes an extensive network of footpaths, 150km in length. And many sub groups of assets that are in the road reserves such as carparks, bridges, bus shelters, street lighting, guard rails and extensive signage.

Not all roads in Albany are the responsibility of the City, some are controlled by Main Roads WA. These include Hanrahan Rd, Chester Pass Road, South Coast Highway, Princess Royal Drive and the majority of Albany Highway.

FUN FACT 1#

Roundabouts are excellent for low-traffic intersections. The City currently has 50 roundabouts!

Transport



TOTAL VALUE

$502,971,722

Why we do it

The value of the transport assets is over $500m and although much of this infrastructure can last a very long time, the replacement costs are ever increasing. Exacerbating this, is greater competition between Local Governments for funding projects and a decline in road funding in real terms.

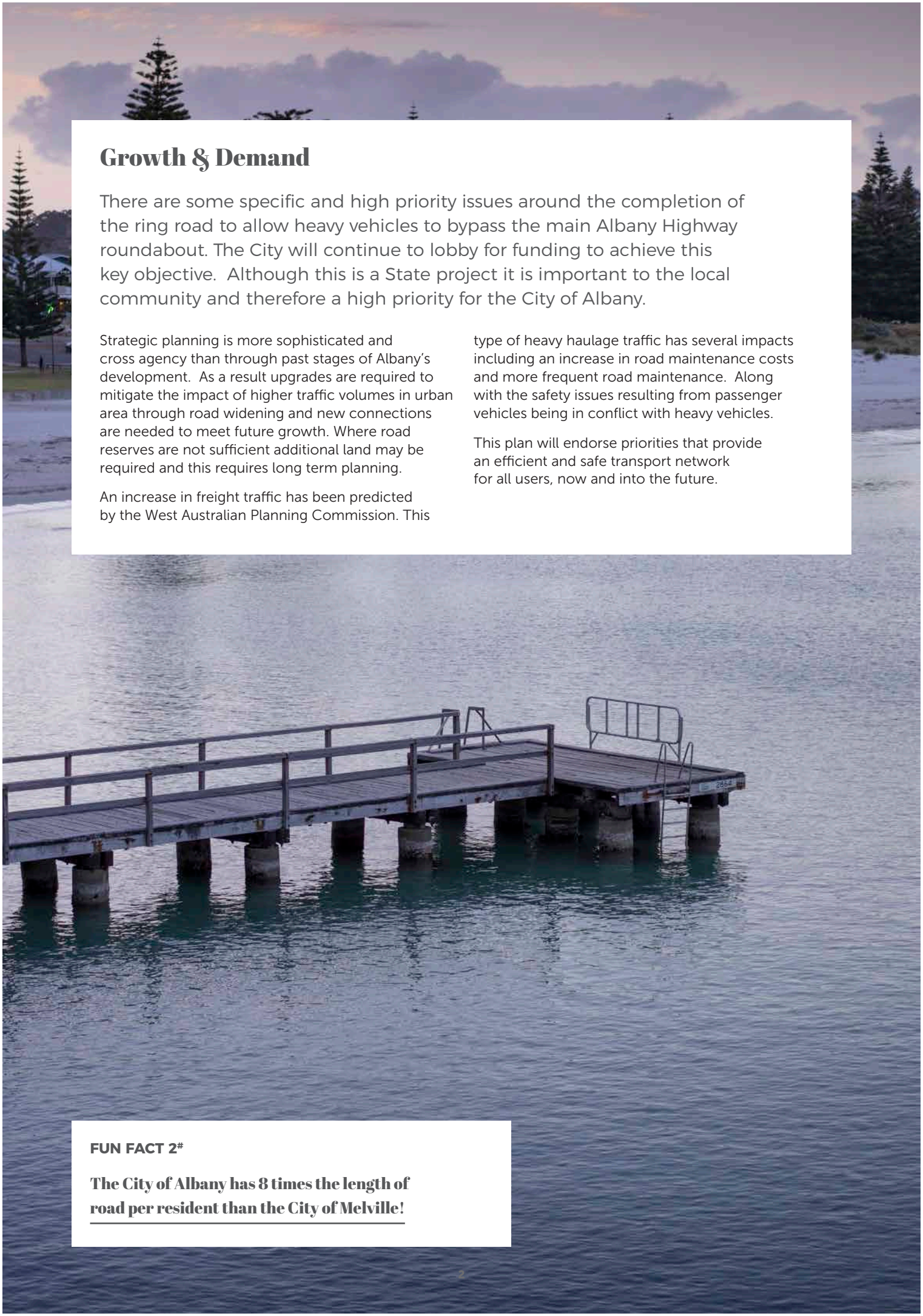
Transport routes are critical to the economic growth of the City and therefore we have an obligation to manage these assets in the most sustainable way possible.

The City has a road network that is 8 times the size as metropolitan local governments with similar populations. It is not sustainable to deliver the same level of service with less revenue on a network vastly different. To best meet the needs of this expansive network tough decisions are required to meet the aspirations of the community whilst meeting the service levels of the existing assets. Expanding the sealed network and building new footpaths has to be balanced with with maintenance and reconstruction.

Sound asset management practices will continue to provide valuable evidence of the cost of increasing or upgrading our transport assets as well as our long term renewal liability. Allowing for informed decisions to prioritise expansion works, to renew assets at the optimal time and to adjust service levels to satisfy the needs of our community.

Community outcomes

- Appropriate transport infrastructure designed to maximise life, capacity and function
- A transport network to connect the community that is safe and encourages pedestrians and cyclists
- Improved asset data and analysis for informed decision making



Growth & Demand

There are some specific and high priority issues around the completion of the ring road to allow heavy vehicles to bypass the main Albany Highway roundabout. The City will continue to lobby for funding to achieve this key objective. Although this is a State project it is important to the local community and therefore a high priority for the City of Albany.

Strategic planning is more sophisticated and cross agency than through past stages of Albany's development. As a result upgrades are required to mitigate the impact of higher traffic volumes in urban area through road widening and new connections are needed to meet future growth. Where road reserves are not sufficient additional land may be required and this requires long term planning.

An increase in freight traffic has been predicted by the West Australian Planning Commission. This type of heavy haulage traffic has several impacts including an increase in road maintenance costs and more frequent road maintenance. Along with the safety issues resulting from passenger vehicles being in conflict with heavy vehicles.

This plan will endorse priorities that provide an efficient and safe transport network for all users, now and into the future.

FUN FACT 2#

The City of Albany has 8 times the length of road per resident than the City of Melville!

Managing our Roads

Road Hierarchy

It is advisable and typical to allocate a level of importance to assets to determine appropriate levels of service, maintenance and priority of works. Main Roads have a functional road hierarchy that we have expanded upon to provide more scope to distinguish between rural and urban roads and multiple levels of access roads.

The Albany Road Hierarchy is a separate technical document that includes a map of the entire network with each road allocated to a level on the hierarchy. Along with all of the parameters to measure the level of each roads function.

The following table is a summary of the Albany Road Hierarchy with a short definition of each level:

Albany Road Hierarchy	Description
Primary Distributor	Main Roads WA controlled. The core road networks throughout Western Australia. Typical roads include South Coast Highway, Albany Highway and Hanrahan (Albany Port) Road.
District Distributor A	Urban roads serving the dual function of carrying traffic between suburbs and providing development frontage for adjoining properties. These roads suit tertiary education, civic, large-scale commercial, with service roads suitable for residential and home based businesses
District Distributor B	Urban area roads similar to District Distributor A with reduced capacity due to flow restrictions from access to and adjoining property and roadside parking. Often older roads with demand exceeding original function. These roads suit pedestrian-based retail streets, centres and limited access to residential and commercial properties.
Regional Distributor	Rural area roads not primary distributors that link significant destinations and are designed for passenger vehicles and goods within and beyond regional areas.
Local Distributor Urban	Urban roads that link neighbourhoods and have pre-dominantly residential frontage. Care is required to ensure that local distributor roads do not become short cuts between district distributors. They should not attract substantial long distance through-traffic, but provide safe and convenient local travel to and from arterial routes, usually at controlled intersections.
Local Distributor Rural	Rural roads that provide for the movement of trucks, machinery and tourists.
Access Urban 1	Urban access roads are the most common in the road network. They provide access in built up areas to individual dwellings and they provide a link between the dwellings and the Local Distributor Roads. Urban access roads have been divided into 4 levels based on criteria outlined in the Albany Road Hierarchy document.
Access Urban 2	
Access Urban 3	
Access Urban 4	
Access Rural 1	The function of rural access roads is to access individual properties. They have low speed and very low traffic volume.
Access Rural 2	
Access Rural 3	

The road inventory is maintained in RAMM software which has several additional applications including GIS, valuation, work prioritisation and other data analysis tools.

SEALED ROADS

Albany has a sealed road network that has predominantly two surface types. Being a sprayed bitumen seal (chip seal) and asphalt. There are also small amounts of brick paved, red asphalt and slurry seal.

Sealed roads are expensive to maintain and are associated with additional drainage infrastructure further adding to the lifecycle costs of the road asset. The benefits to sealing roads are the reduction of dust, more consistent surface for safer all year round weather access.

UNSEALED ROADS

Approximately half of the City's road network is unsealed, generally formed roads using laterite gravel pavement. These gravels are of a high quality compared with many other materials found around Australia, and can service low levels of traffic with minimal maintenance.

The City frequently receives requests to seal gravel roads. For this reason a guiding document has been created for prioritising these requests within the allocated budget for upgrades. The associated document *Upgrade Criteria for Unsealed Roads* has the detail and methodology for this decision making process.

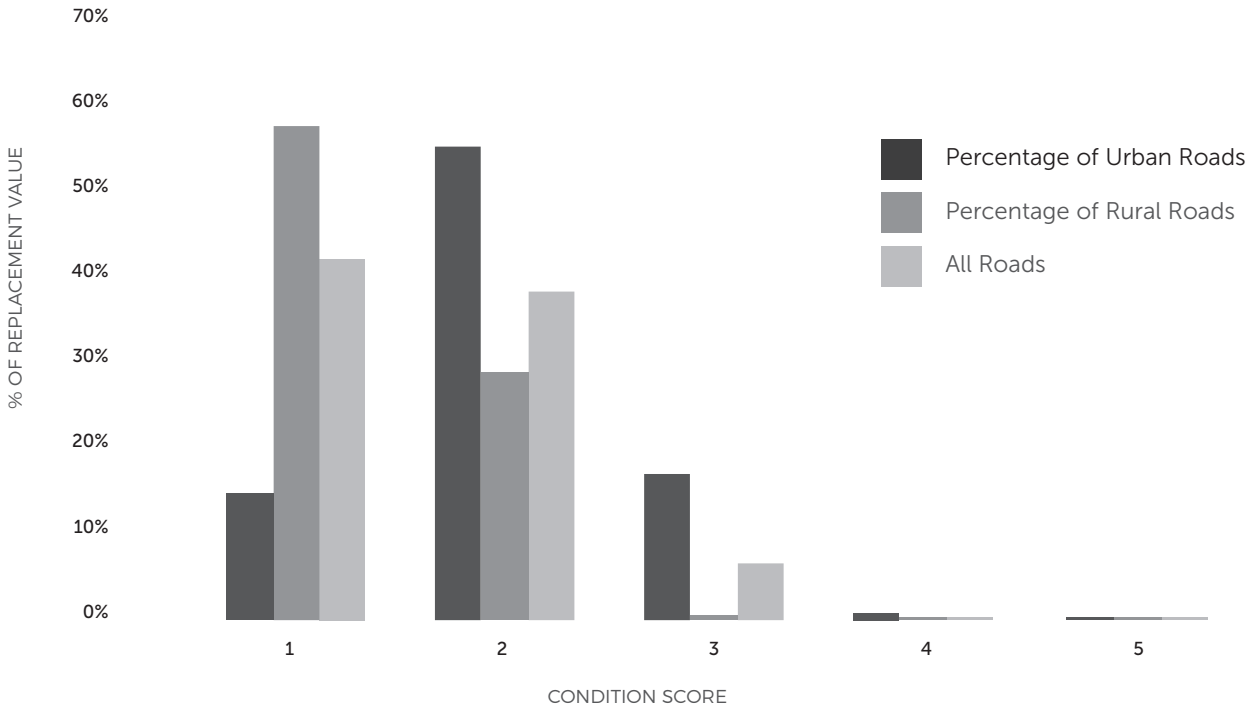
ROAD CONDITION

Sealed road condition is measured through multiple criteria such as cracking, patching, surface defects, surface deficiencies edge break and roughness using a high speed condition survey tools and video analysis. We have created a Road Condition Index calculator in-house that weights and amalgamates these parameters into a single 1 – 5 condition score for each road treatment length.

The intention is to undertake road condition assessments on a 3 year cycle in sync with our fair value obligations. A condition survey was recently conducted but the analysis of the survey data is still being undertaken. The condition profile on the 2013 high speed condition survey is in the following graph. The profile indicates that rural sealed roads were in better condition than urban sealed roads when this condition survey was undertaken.

Road condition from 2013 will be closely compared with road condition in 2017 as an indicator as to whether we are spending an appropriate amount on road maintenance.

ROAD CONDITION PROFILE



Measuring the condition of unsealed roads is more problematic as it is requires manual inspection of large lengths of road at great distances. As condition attributes can change rapidly after heavy rainfall, this data is ephemeral in nature. The City surveyed a selection of unsealed roads in 2014 for pavement depth, road shape and integrity of the drainage to inform grading and resheeting practices. Some lessons learned from this initial trial survey will be formalised in an Unsealed Condition Survey document to improve confidence in grading and re-sheeting requirements for our unsealed network. This will include the timing and frequency of surveys, extent of the network to be surveyed, methodology and how the data will be used to improve outcomes.

Managing our Paths

We have a variety of footpath materials throughout the network including bitumen, asphalt, red asphalt, concrete, concrete slabs and brick pavers.

The Cycle City Albany Strategy, produced in 2014 was a guiding document for identifying missing links in the path network, and for prioritising projects to achieve a more attractive network to encourage bicycles as a transport option. This has been integrated with other priorities such as access to a variety of destinations, pedestrian needs and safety.

PATHWAY HIERARCHY

For similar reasons to other assets our path network has a hierarchy applied. The hierarchy is used to prioritise where we construct new paths to ensure they are providing the most value to the community.

In addition, to the hierarchy in the table below we have a calculator for weighting safety, cost, connectivity to schools, health care, recreation and commerce to support decision making. The hierarchy uses similar definitions and levels to the road hierarchy.

The Albany Path Hierarchy and Calculator are a separate document that includes the mapped hierarchy, parameters

Albany Path Hierarchy	Description
Principal Distributor	Major pedestrian and cycle commuter use. These paths provide connectivity between suburbs and major destinations.
Local Distributor	Service suburbs providing main connectivity to the Principal Distributor pathways
Local Access A	Minor low use pedestrian pathways that provide connectivity to local destinations, like schools and parks.
Local Access B	

PATHWAY CONDITION

Our paths were condition rated in 2016 and the following condition profile is the result. Generally our footpath network is in good condition. However, we do have some issues with meeting current compliance standards with our older paths, pram ramps and crossovers. It is not viable to have the entire network to today's compliance, as standards are a constantly moving target. The goal is to meet all contemporary Australian Standards as paths are replaced.

Condition surveys will also be conducted on a 3 year cycle in line with fair value. Depending on resources available and based on the good condition of the network, this may only occur on the higher levels footpaths in the hierarchy. As defect inspections and maintenance repairs are more beneficial with a path network than frequent condition survey intervals.

Managing our Carparks

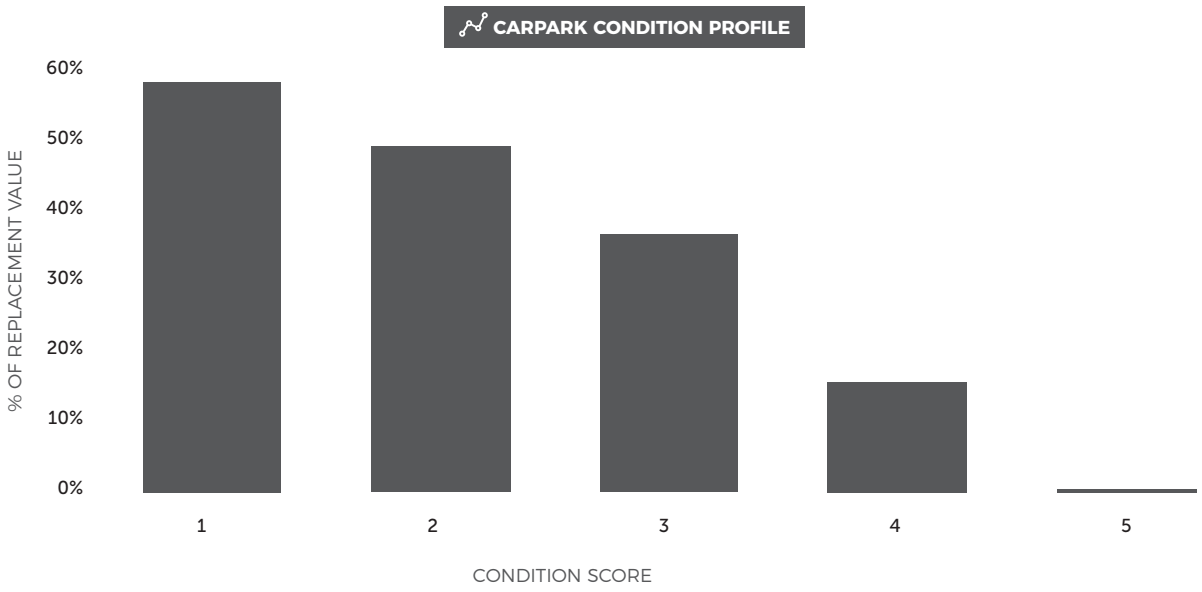
Carparks are treated similarly to the road network but perhaps not to the same level of efficiency as our road management at present. Over the last 2 years the inventory has been improved and will soon be included in our RAMM software with our road inventory.

This will improve our capacity to store condition data and to use the condition data to inform capital works programming using the same methodology as our roads.

Our carpark inventory is approximately 173,000m2 in area. The seal types are a small amount of brick pavers, and similar amounts between chip seal and asphalt.

CARPARK CONDITION

The following condition profile is based on seal condition estimated from a variety of site visual inspections on aerial imagery dated February 2015. This indicates 10% of our carpark seals are due for replacement in the short term. The condition data for this asset sub-class requires improvement and is likely to tie in with future road condtion surveys.



Managing our Bridges

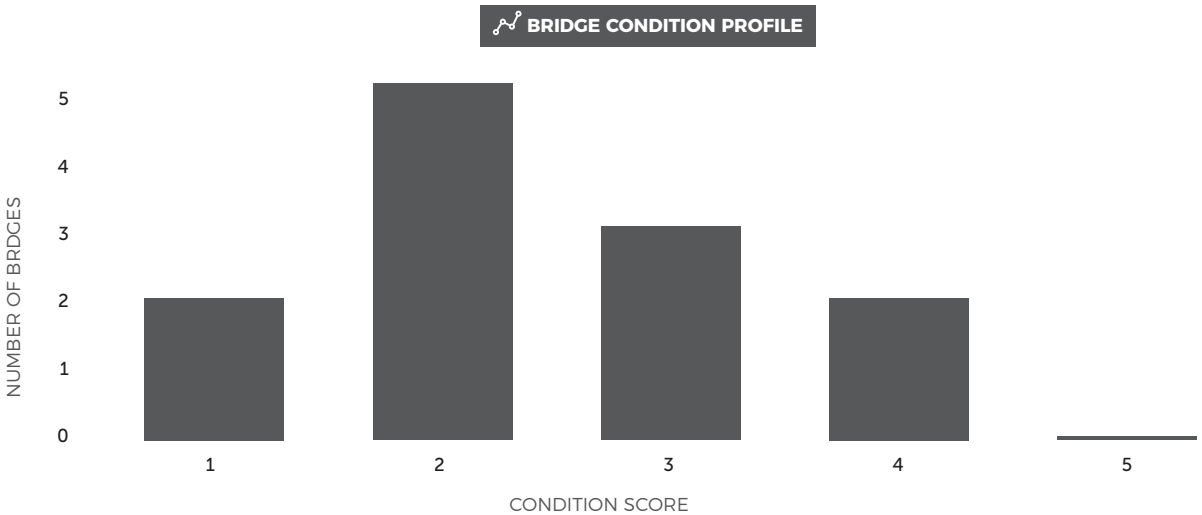
The City has 44 road bridges and 1 pedestrian bridge linking the CBD to the foreshore. The total combined span of bridges is approximately 1km. 12 road bridges and the pedestrian bridge are maintained by the City of Albany, 17 being the responsibility of the Water Corporation and the balance being controlled by Main Roads WA.

Main Roads WA undertake all required major works and provide technical advice on the City's bridges.

The City Operations Trades team do all preventative and minor reactive maintenance activities.

BRIDGE CONDITION

This condition profile is based on remaining life of bridges from 14/15 fair value calculations. The confidence in construction dates for major bridges or major refurbishments dates are reasonably accurate and have been used as the basis for calculating condition.



Managing our Bus Shelters

The City is currently responsible for approximately 104 bus shelters in both urban and rural locations. There are multiple types of shelters particularly in the urban area. The plan is to rationalise shelters in the urban area with improved outcomes in appearance, safety and lifecycle costs.

The intention is to have one style of shelter for the urban area with the potential for commercial advertising to be installed. With the continued use of the existing style of rural shelters. Commercial advertising will only be permitted on selected Distributor Roads and in appropriate and safe locations. Ideally, commercial advertising will be integrated into the urban style shelter. A 10 year replacement program that will prioritise the works to rationalise our bus shelter network is in progress.

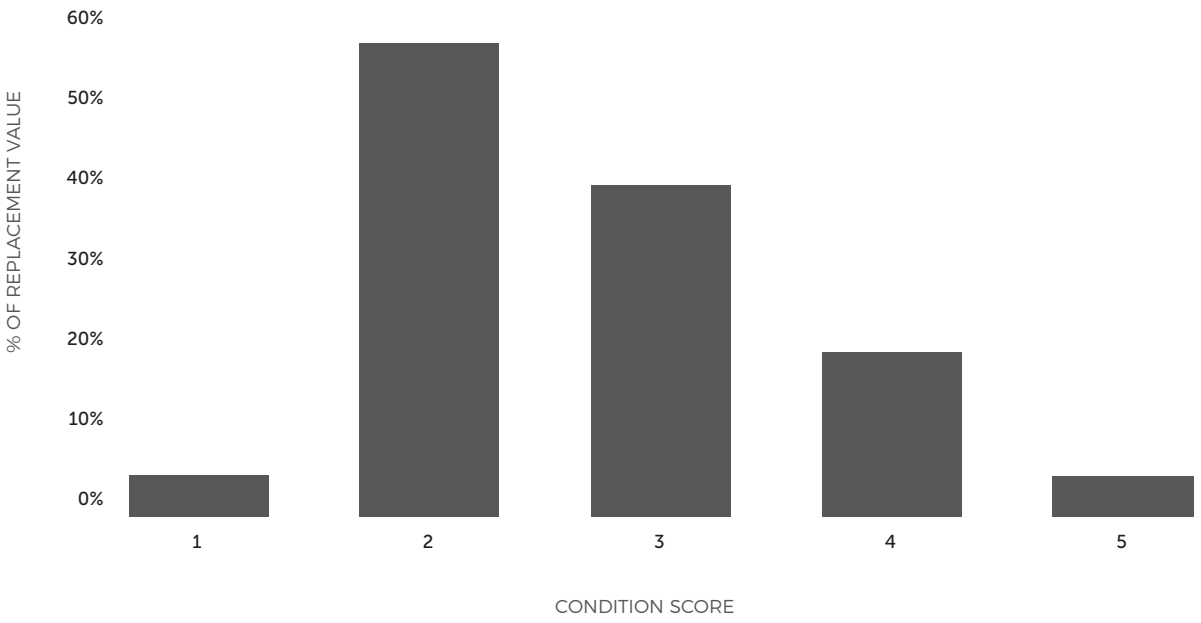
The City aims to provide bus shelters wherever a viable number, currently set at 10 users, regularly board the bus. These numbers are provided to the City by the bus service provider.

The Public Transport Authority has recently tendered for TransAlbany town and school bus service. On award of this tender the Public Transport Authority plans community consultation in regard to the bus services offered in Albany. The outcome of this community consultation is likely to impact on the City's rationalisation plan for bus shelters.

BUS SHELTER CONDITION

All bus shelters were audited in 2015 with the results displayed graphically below. This indicates there are approximately 20 shelters at or past intervention levels.

BUS SHELTER CONDITION PROFILE



Managing our Street Lighting

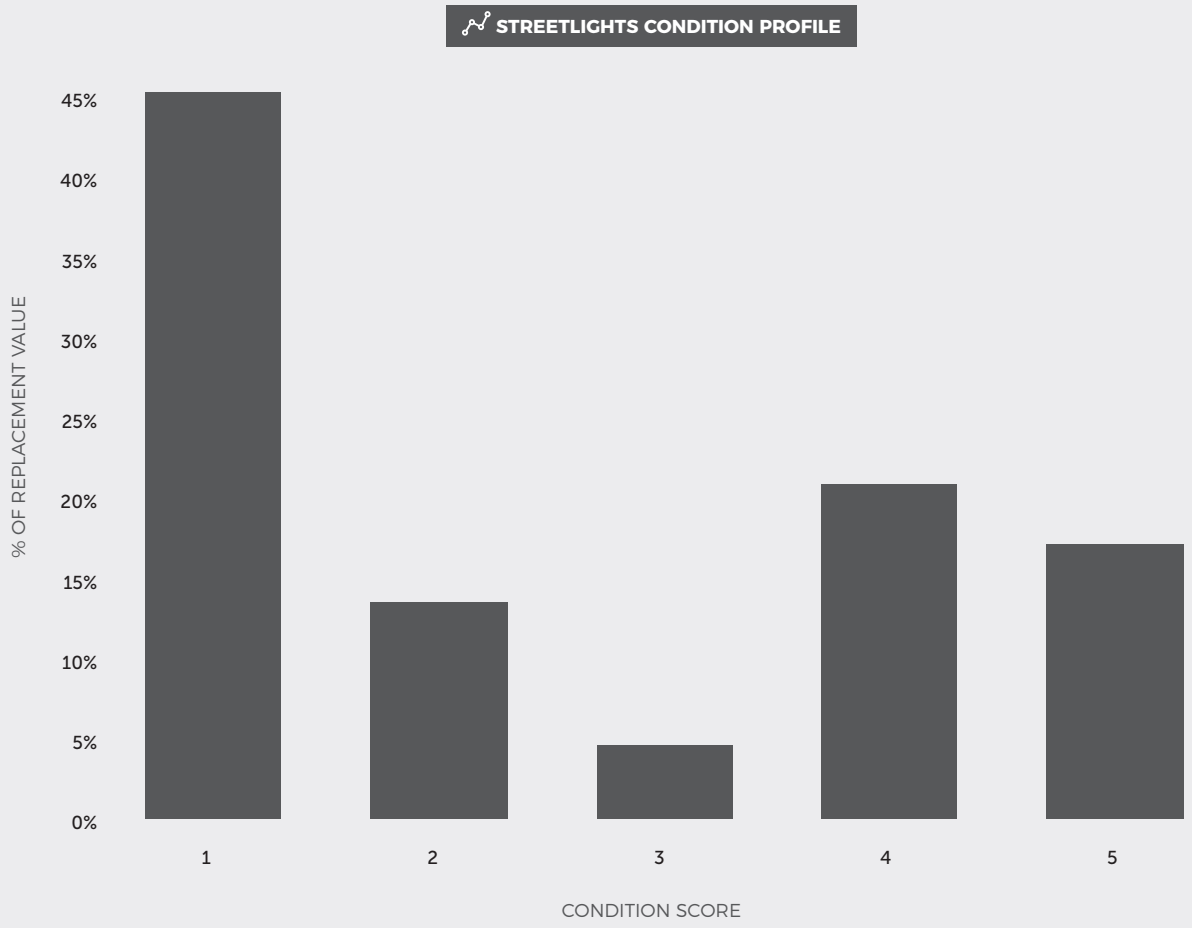
This asset sub group includes all types of public lighting such as street, car park, path, access, crossing and special airport lighting. Essentially all lighting that has a transport purpose.

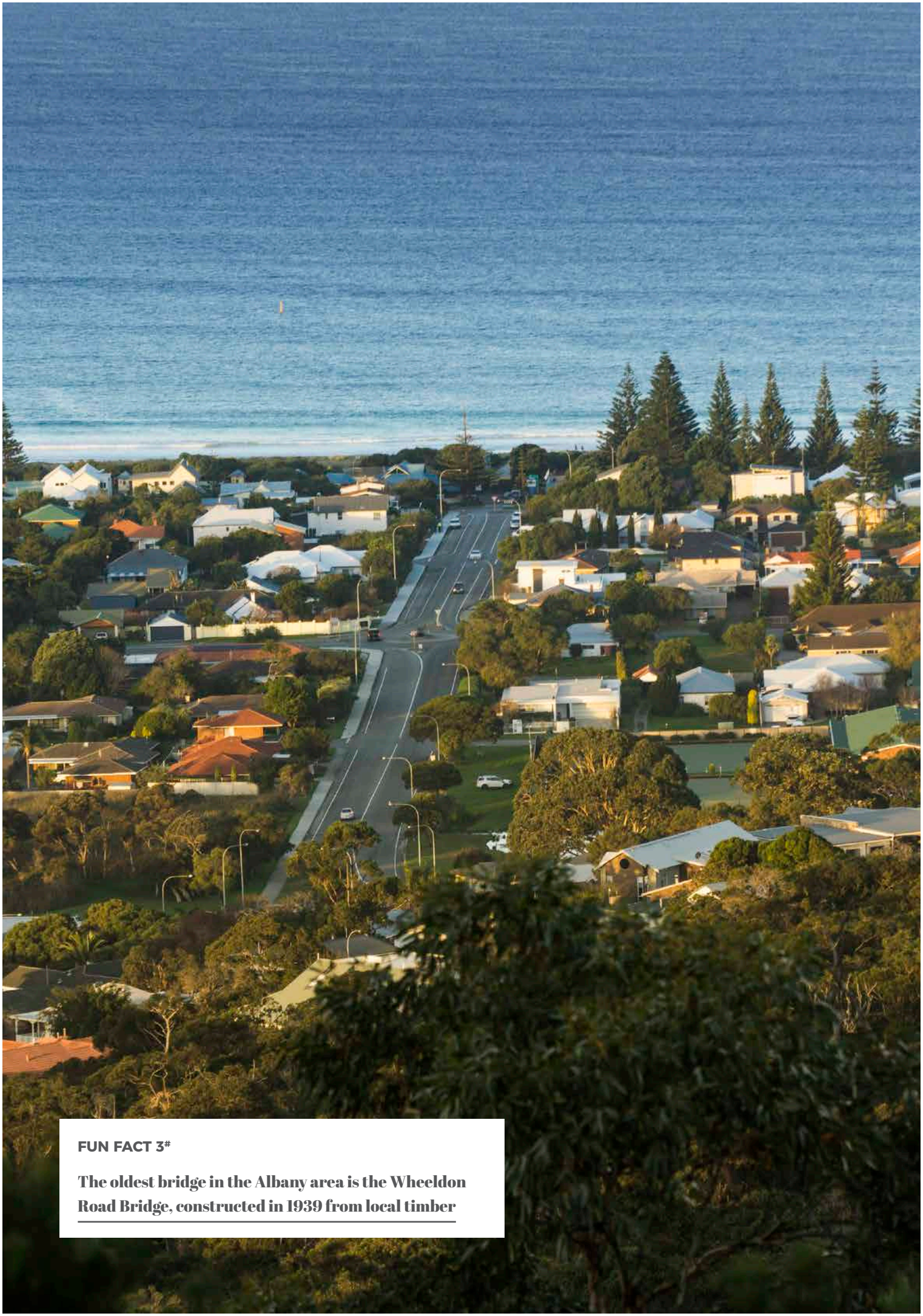
The majority of streetlights in Albany are owned by Western Power. The City is responsible for any energy costs and maintenance tariff associated with them. Energy costs are calculated based on the type and wattage of the light, based on an average hours of operation per year.

The City currently undertakes biennial audits and reports defects to Western Power for their action.

There were 186 City owned street lights at the end of the 2014/15 financial year on which the following condition profile is based. The condition is based on age and further investigation is required to improve our condition assumptions. The inventory now holds 350 assets, which is a substantial improvement in inventory data in the last 2 years.

Most street lights are in the York Street, Stirling Terrace, Princess Royal Drive, Middleton Beach and the Airport.





FUN FACT 3#

The oldest bridge in the Albany area is the Wheeldon Road Bridge, constructed in 1939 from local timber

Transport Maintenance

The City Operations team undertake preventative and reactive maintenance activities for roads, paths, carparks and other infrastructure in-house.

These processes are well entrenched in City Operations team. A logical improvement is to document the specifications for each maintenance activity, structuring frequencies and when we intervene with defects. This would allow the quantifying of costs for each activity over a budget period.

This would allow for maintenance levels of service to be adjusted with more accurate correlation of budget and resources.

Information from the maintenance teams greatly enhances the condition data to improve capital works programming. A formalised process for this information flow would be beneficial in generating efficiencies and optimising capital works.

Levels of service

Level of Service	How we measure performance	Previous Years		Targets	How we will meet the performance target
		2015	2017	2019	
Sealed roads & carparks will be in a condition appropriate to the hierarchy	% of sealed network over intervention level	New	**2.5%	**<3.5%	Renewal budget driven by renewal modelling based on condition
Paths will be in a condition appropriate to the hierarchy	% of path network over intervention level	New	**3.0%	**<3.5%	Prioritised based on the hierarchy
Sealed roads will be functional, safe and appropriately maintained	Maintenance of Sealed Roads Satisfaction Survey	*51%	*41%	45 - 55%	Planned maintenance program & risk based reactive maintenance system including target response times Well supervised contracts Use data to optimise maintenance and renewal works Renewal works based on hierarchy and level of risk of failure
Unsealed roads will be safely traversable in all weather conditions	Maintenance of Unsealed Roads Satisfaction Survey	*45%	*38%	40 - 45%	Initiate condition surveys to inform grading and re-sheeting practices
Paths to be functional, safe and appropriately maintained	Footpaths Cycleways & Trails Satisfaction Survey	*56%	*56%	54 - 58%	Planned maintenance program & risk based reactive maintenance system including target response times

* RESULTS BASED ON THE BI-ANNUAL COMMUNITY PERCEPTION SURVEY

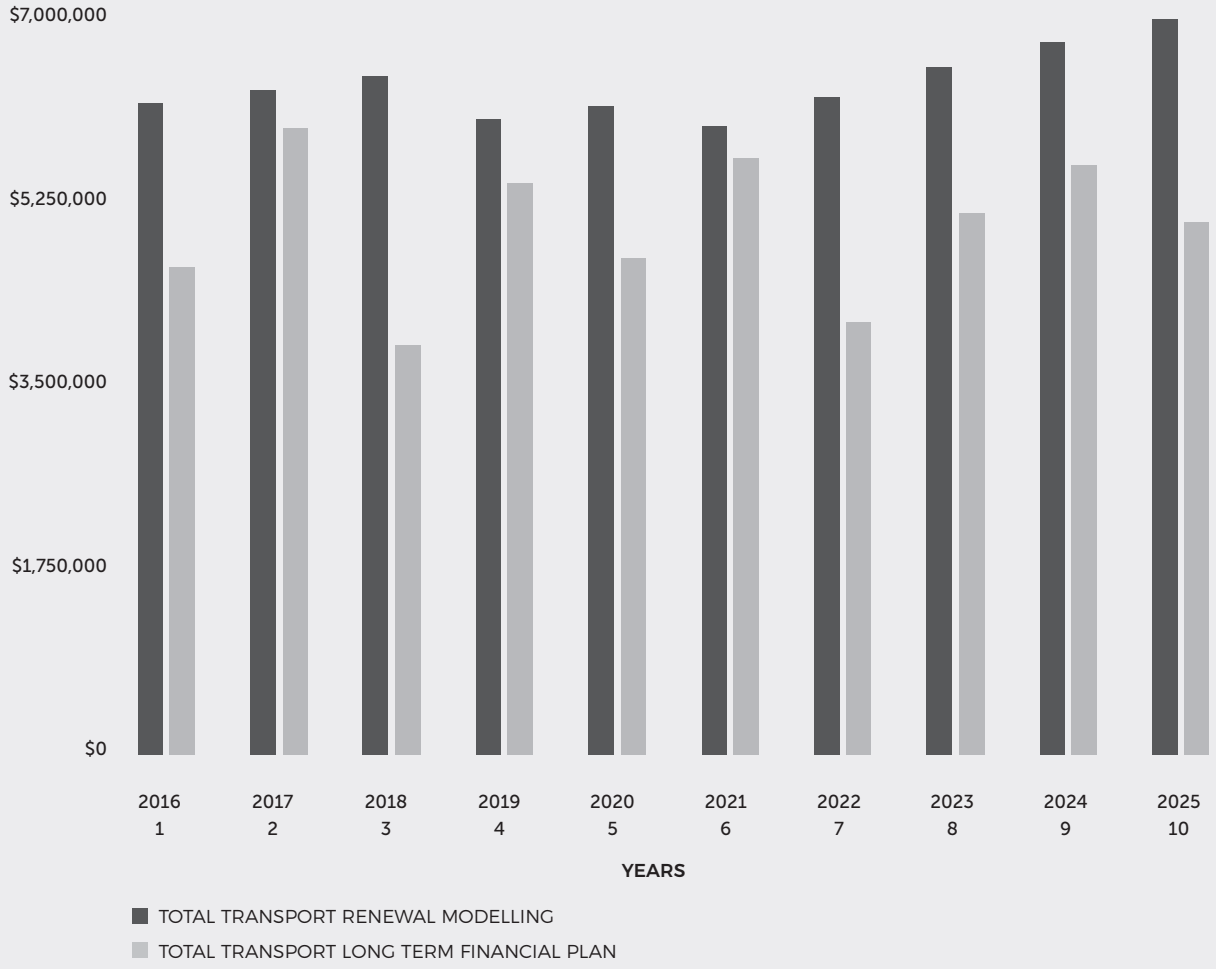
** BASED ON AN AGREED CONDITION INTERVENTION LEVEL USUALLY 4 (1 - 5 SCALE) DEPENDENT ON HIERARCHY

Financial

The City spends an average of $5.4m per annum on roads, carparks & bridges in capital works and $5m per annum on maintenance averaged over the last 3 years. This expenditure is a mix of state and federal government funding and municipal funds.

The expenditure in the long term financial plan is a little lower than the financial modelling is indicating. However, this modelling is conducted annually with updated condition information, inventory and reviewed unit rates. The next round of modelling will be expanded to include gravel re-sheeting.

COMPARISON OF RENEWAL MODELLING TO LONG TERM FINANCIAL PLAN EXPENDITURE



Our projects for the future

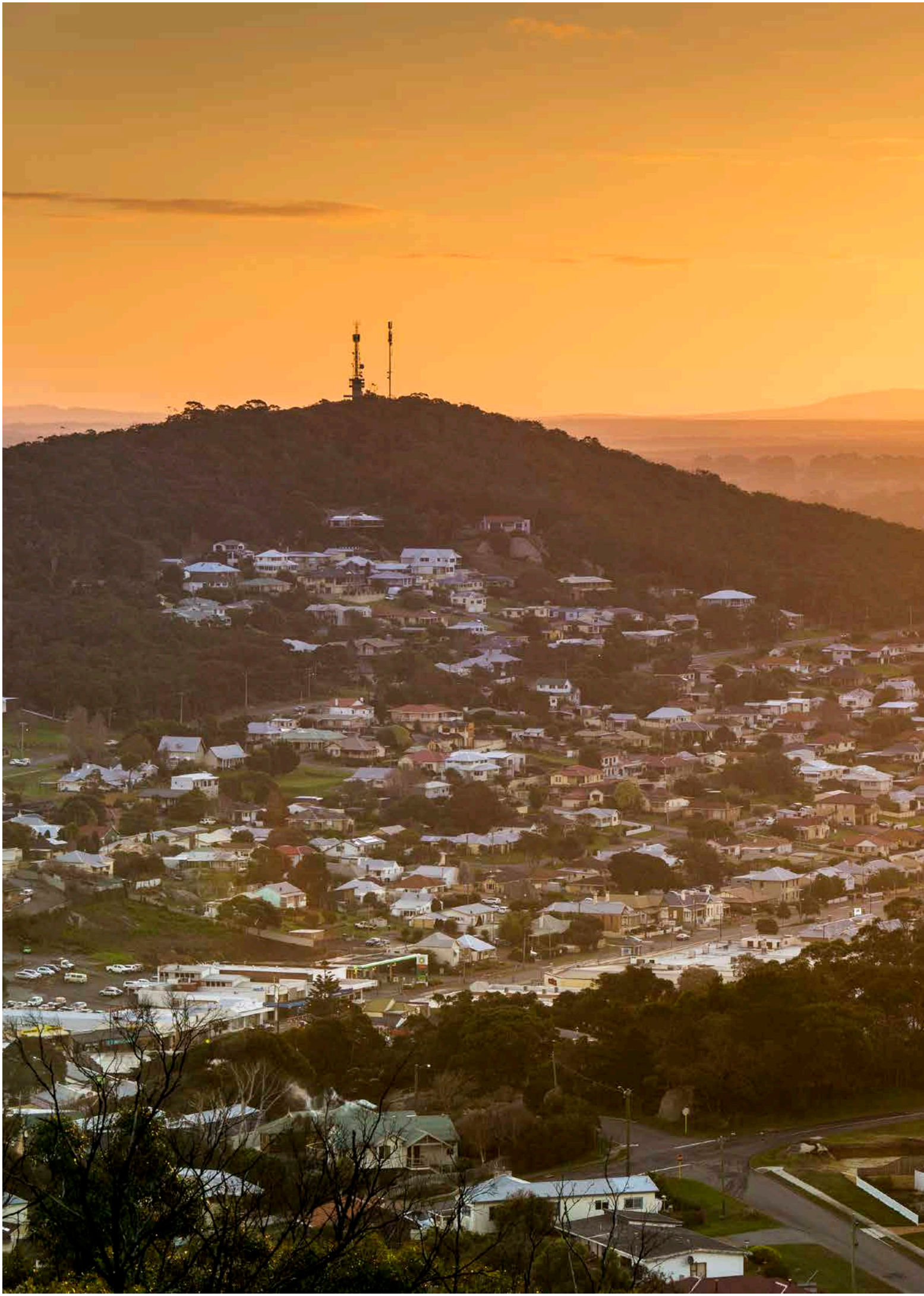
What is the project	What is the driver	When	Cost
Albany Highway reconstruction	Failure of pavement on District Distributor A Road	19/20	$1.5m
Middleton Road Overlay	Surface at end of life and past intervention levels on Local Distributor Road that serve a commercial, residential & tourist function. Inclusive of some upgrade works to meet cycle strategy and urban greening outcomes.	17/18	$2.0m
Sanford Road upgrade & North Rd Roundabout	Installation of a roundabout at the North Rd & Sanford Rd intersection, design and reconstruction of Sanford Rd.	18/19-19/20	$2.1m
Mt Elphinstone path link to CBD	Cycle City Albany highlighted the need for a pedestrian and cycle link. This project has attracted Department of Transport funding.	17/18 – 18/19	$1.2m

Threats

Threats	Description	Mitigation
Inheritance of aging assets from State Government	Increase in arterial road network due to the addition of the ring road. Such as Chesterpass Road, Albany Hwy & Roundabout.	Forward planning and sufficient reserves for increased renewal & maintenance costs. Negotiation of future funding to assist with this expenditure prior to hand over of aging assets.
Increases to Service levels	Increasing levels of Service have a corresponding increase in expenditure that is currently unknown.	Being able quantify the long term cost of changes to levels of service can provide the basis for informed decisions
Community Expectations	A better understanding of the expectations of the community in regard to transport assets. Particularly around the expansion of the network.	Education and communication with the public around what is sustainable. Opening a dialogue on what the community is willing to pay for any increase in service levels

Improvement Plan

- Creation of a "Maintenance Manual", that details tasks performed on the road network and how they should be performed, specific to the region's methods and materials used. Inclusive of frequency and intervention levels and response times for reactive maintenance. Associated costs so changes in maintenance levels of service can be modelled.
- Identification of key tasks that can assist in prolonging the life of high-value assets and determining a business case for their introduction based on benefit-cost ratio.
- Condition based valuation of the road network.
- Improved inventory and condition data for Transport sub groups for the next iteration of this plan.



Further reading

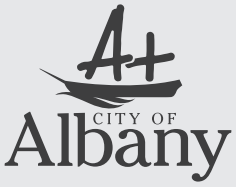
Albany Road Hierarchy (in final stages)

Upgrade Criteria for Unsealed Roads (in final stages)

Bus Shelter Guidelines (in development)

Maintenance Program (to be developed)

Streetlighting Strategy (to be developed)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Albany