



CITY OF  
Port Adelaide Enfield

# FOOTPATHS

ASSET MANAGEMENT PLAN

20

20



## Document Control

### Port Adelaide Enfield Council: Footpath Asset Management Plan

Rev No	Date	Revision Details	Author	Reviewer	Approver
1	Aug-2008	Adopted: Dec 2008	RK	GB	WI
2	May-2013	Adopted: June 2013	JN	GB	WI
3	Sept-2016	Adopted: November 2016	JN	GB / SD	WI
4	Sept-2020	Adopted: November 2020	JN	Footpath Custodian Group	AM Steering Group



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# EXECUTIVE SUMMARY

This fourth edition of the Footpath Asset Management Plan (AMP) continues to advance the level of service delivered to the community. It will detail what infrastructure we have, why it needs to be maintained, and what is the most efficient way to manage this asset class to deliver on the expectations of our community.

This edition also introduces a benchmarking target, to ensure the performance of the footpath network is maintained over the life of this plan to 2024.

## IN 2024, COUNCIL WILL:

*Objective 1: Achieve a minimum network OCI score of 2.4 (where 1 is good and 5 is poor)*

This objective is discussed in Section 8

The Overall Condition Index (OCI) performance target has been established by engaging with the community to understand their level of expectations, and through analysis of recent condition audit data against historic expenditure levels.

This is further explained on page 16.

This AMP reviews the infrastructure assets that form the Footpath network, which have a combined Replacement value of \$225 Million with a total Annual Depreciation expense of \$3.4 Million.

Like the 2016 Footpath Asset Management Plan, the Asset Renewal Funding Ratio of 407% is considerably high in comparison to Council's other Asset types. This is simply because the overall condition of the network is continually maintained to a relatively good condition.

The projection of planned renewal post condition audit suggests a much lower requirement for renewal spend than what is actually budgeted annually. An oxymoron is exposed, as it is the consistent level of expenditure that this Council invests into the network that maintains the network condition. Any reduction in renewal expenditure will not only rapidly reduce the level of service currently provided to the community, but will also quickly forgo the existing credit we currently have in the network. This will result in the risk of an imminent threat of unsustainable expenditure levels in the near future – as modelled in Chart 8.4 (p 42).

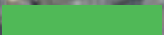
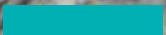
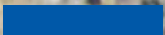
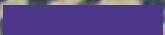
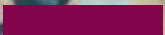
This edition identifies Annual Depreciation as a better indicator of consumption, and models the Capital Renewal of \$1.3M spend with the \$2.4M Maintenance budget to ensure that the current level of service provided by the network remains sustainable to the rate of depreciation.

The 2020 Footpath AMP has used the data returned from the 2018 footpath network condition audit, the results of the 2019 Community Perception Survey, the City Plan 2030 objectives, analysis of current and future demand factors, and evaluation of risk to establish the stated objective above.

The asset management plan follows the format for AM Plans recommended in Section 4.2.6 of the IPWEA International Infrastructure Management Manual.











This Footpath Asset Management Plan covers the infrastructure assets that provide the City of Port Adelaide Enfield community's footpath network. It details information about our Footpath assets and details actions required to provide an agreed level of service in the most cost effective manner.

The plan defines the services to be provided, the cost in maintaining these services, and what funds are required to continue providing the necessary Footpath management needs for our current and future community.

This asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements under the Local government Act 1999, and to communicate funding needed to provide the required levels of service over a 20 year planning period.

The asset management plan follows the format for AM Plans recommended in Section 4.2.6 of the IPWEA International Infrastructure Management Manual.







# Strategic and Corporate Goals

The City of Port Adelaide Enfield is guided by the City Plan 2030. The vision of the City Plan is for:

***“A city that values its diverse community and embraces change through innovation, resilience and community leadership”***

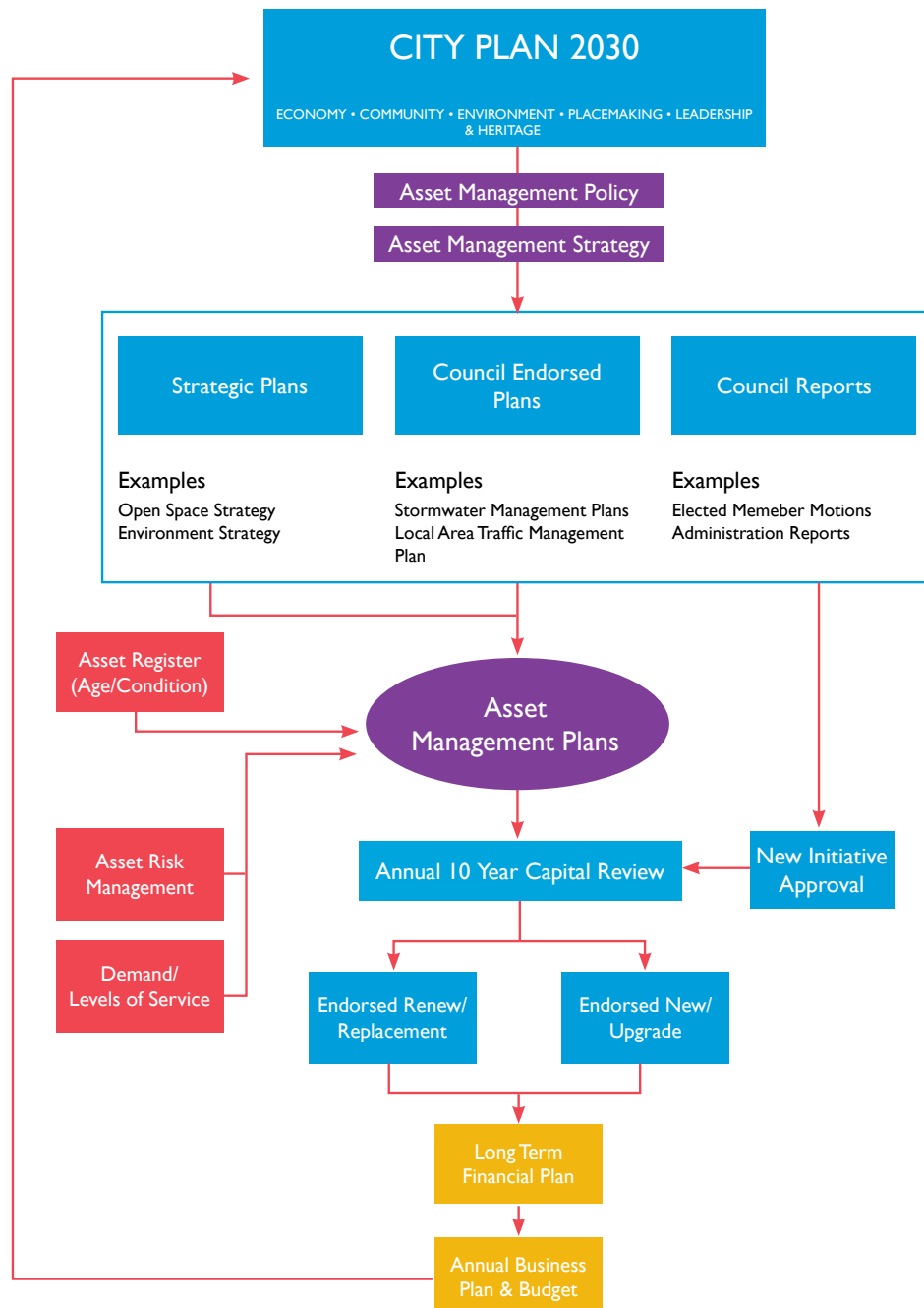
## Strategic Alignment

This Footpath Asset Management Plan primarily fits within the Leadership theme of the City Plan, contributing to decisions being made in a more strategic and accountable manner.

It also relates to a number of other Council documents including (but not limited to):

- Asset Management Strategy
- Long Term Financial Plan
- Annual Business Plan and Budget
- Inclusive Communities Plan 2019-2024
- Public Health and Community Wellbeing Plan

The adoption and implementation of the Footpath Asset Management Plan 2020 will support the City of PAE to achieve the aspirations of the City Plan 2030.



Relevant goals and objectives and how these are addressed in this Asset Management Plan are outlined below:

## ECONOMY

*We are a thriving economy and a business-friendly City*

- That the infrastructure provided under this Asset Management Plan is successfully connecting business and industry to opportunity and prosperity.
- Sourcing goods and services locally is considered when undertaking procurement.

Prosperous • Connected • Growing

## COMMUNITY

*We are a safe, vibrant, inclusive and welcoming city for our residents, businesses and visitors alike*

- To ensure that the infrastructure provided under this Asset Management Plans achieving a Level of Service that is expected by the community and its Elected Members.

Healthy • Inclusive • Cohesive

## ENVIRONMENT and HERITAGE

*We are a low carbon, water sensitive and climate resilient City and our built heritage is protected, embraced and celebrated*

- Sustainability, water and energy efficiency are considered when upgrading assets

Distinctive • Adaptable • Sustainable

## PLACEMAKING

*We are a unique and distinctive collection of active places, created and cared for through strong partnerships*

- To ensure that the infrastructure provided under this Asset Management Plan is delivering a safe environment for the community – ensuring access and linkage for people to conduct their life and business activities

Belonging • Accessible • Creative

## LEADERSHIP

*We are an innovative, collaborative and high performing leader within local government*

- To measure the organisation's performance through key financial indicators and accuracy of data and to advance Council's Asset Management Plan with a strategic improvement plan.
- To outline current levels of expenditure, and to identify projected funding requirements for future projects that will deliver sustainable infrastructure for the community.
- To connect this Asset Management Plan with the people, relevant organisations and businesses that make up the Port Adelaide Enfield community through Public Consultation and Community Survey.

Strategic • Accountable • Engaged









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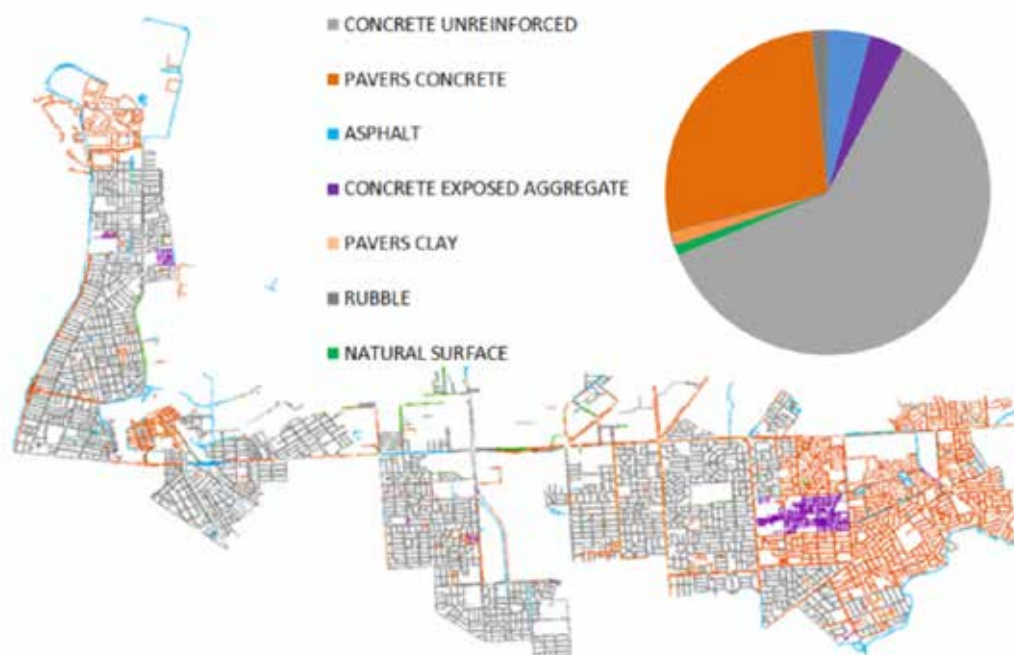
HOW MUCH  
DO WE  
MANAGE?



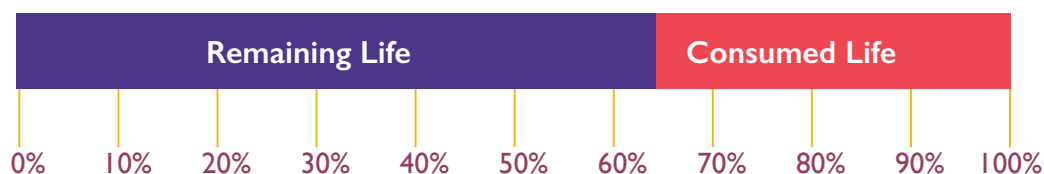


The infrastructure assets covered by this asset management plan are shown below. The following lengths and values relate to the 2018/19 valuation data

Asset category	Length (km's)	Replacement Value
Asphalt	54.75	\$19,924,284
Concrete	809.28	\$139,500,081
Pavers	359.89	\$64,600,221
Rubble	19.9	\$3,024,523
TOTAL	1243.82	\$225,049,111



Current Replacement Cost:	\$225,049,000
Current Depreciation:	\$86,948,000
Depreciated Replacement Cost <sup>1</sup> :	\$138,101,000
Annual Depreciation Expense:	\$3,388,086



Based on current age and condition, the value of the network is calculated to be 62% of its total Replacement Cost

<sup>1</sup>Also reported as Written Down Current Replacement Cost (WDCRC).

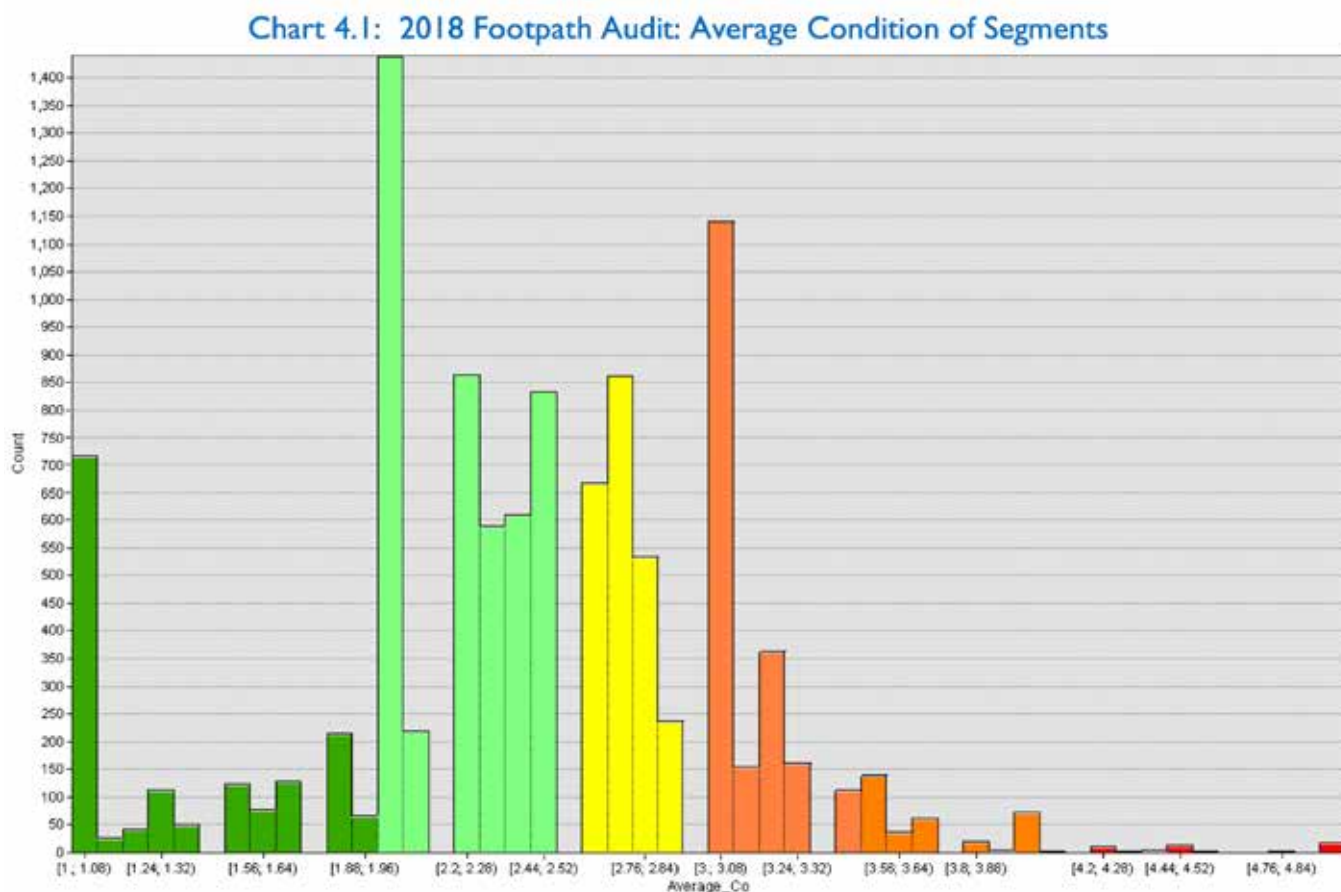


# 4 WHAT IS THE CONDITION OF OUR FOOTPATH NETWORK?





A condition rating of the entire footpath network was undertaken in 2018. The audit was performed by a Contractor using quadbikes equipped with front and rear cameras. An image of the footpath was captured every 3 metres, with the rider of the quadbike providing a visual assessment of the footpath at 20 metre intervals. Chart 4.1 depicts the condition of the footpath as at November 2018.



The chart above is a measure of segment condition – where segment is the start and end of each footpath (ie from street corner to street corner). The colour ramp indicates the average condition score of segments, by the following description:

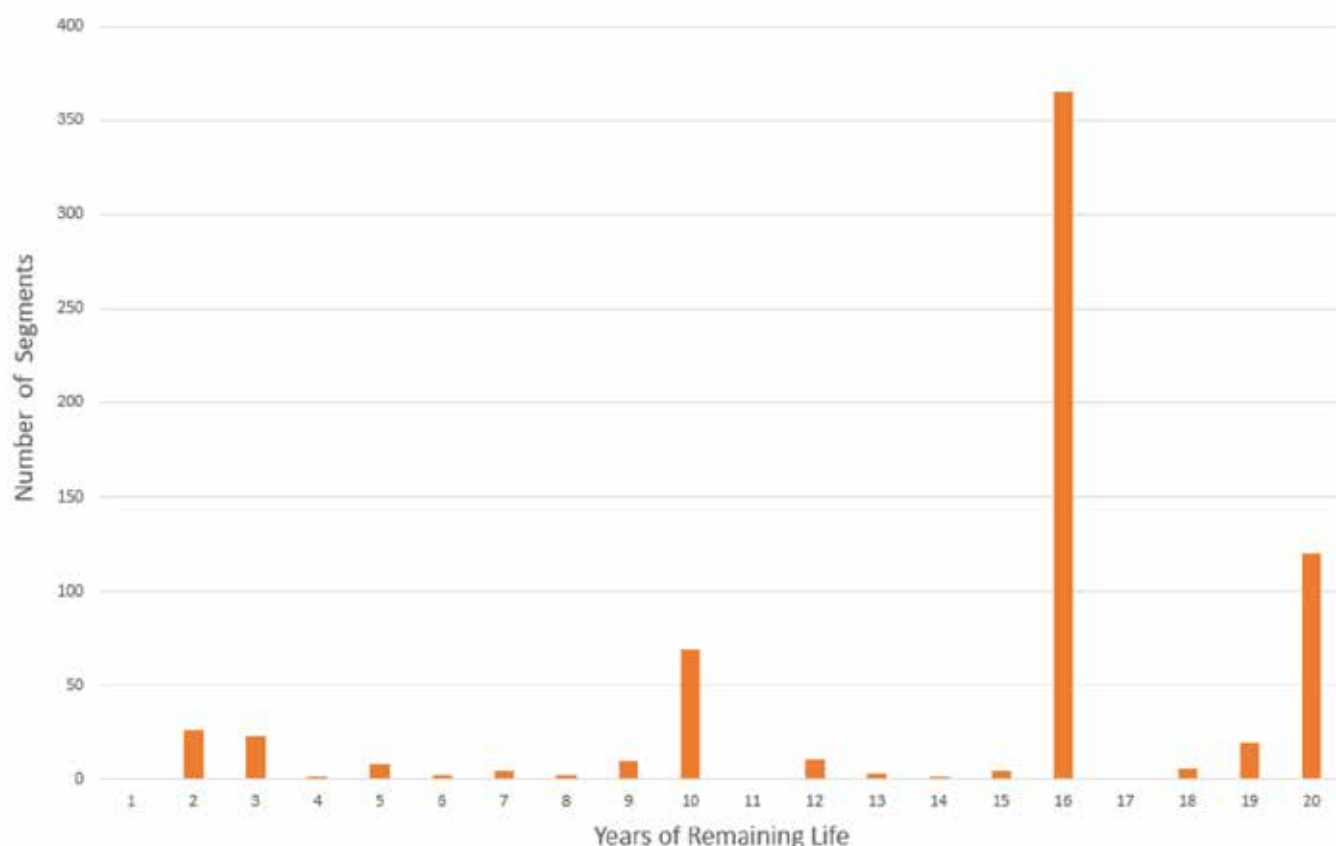
- Dark green = very good or new condition,
- Light green = good condition,
- Yellow = reasonable or average condition,
- Orange = poor condition,
- Red = immediate repair.

Of the 62,533 observations recorded of the 20 metre intervals, only 453 were recorded as a condition 5 (poor). It is important to note that a 20 metre interval can be impacted by an extreme trip hazard (or similar) which will record a condition score of 5. Thus the graph represents average segment scores, not individual observations.

Unlike other asset classes, the predicted renewal date of a footpath segment is difficult to determine, as the replacement of a section of concrete bays or small area of paving will return the serviceability of the footpath to a good condition. Hence, general maintenance will maintain the serviceability and hence life of the footpath network.

The following chart (4.2) indicates the number of footpath segments that need to be replaced in the next 20 year period. It must be specified that this is indicative only as many of these identified defects will be repaired through general maintenance activities driven by customer requests.

*Chart 4.2: Remaining Years of Footpath Segments to be Replaced*



The life and performance of a footpath segment can also be impacted by the following, which are both difficult to predict and plan for.

- environmental factors (tree root lifts or soil movement) and
- builders damage (construction equipment, service cutting)

For the reasons above Council embraces a high focus on footpath maintenance with associated budgets, further explained in Section 8.

The average condition of the entire network was calculated following each condition audit. The following overall condition scores (OCI) provides an indication of how the footpath network has been managed over the last four years. A score of 1 indicates an excellent of new network, with 5 being extremely poor. Council's network has marginally improved since 2013.

2013: 2.425

2018: 2.414

It is worth noting that other Councils have utilised the same specification for defect identification developed by the City of Port Adelaide Enfield. When the footpath network is compared to other councils it rates extremely well.

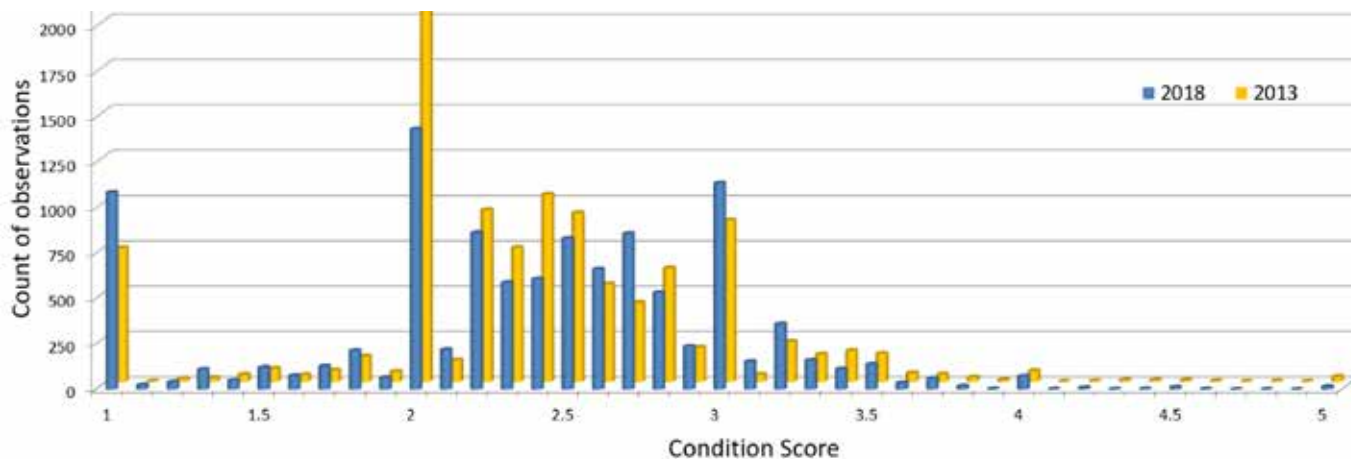
Given the difficulty in planning the replacement of the footpath network due to the unpredictable nature of environmental factors and builder's damage, Council uses the average Condition score as a guide to direct expenditure levels for the Long Term Financial Plan.

The financial modelling is discussed under Section 8.



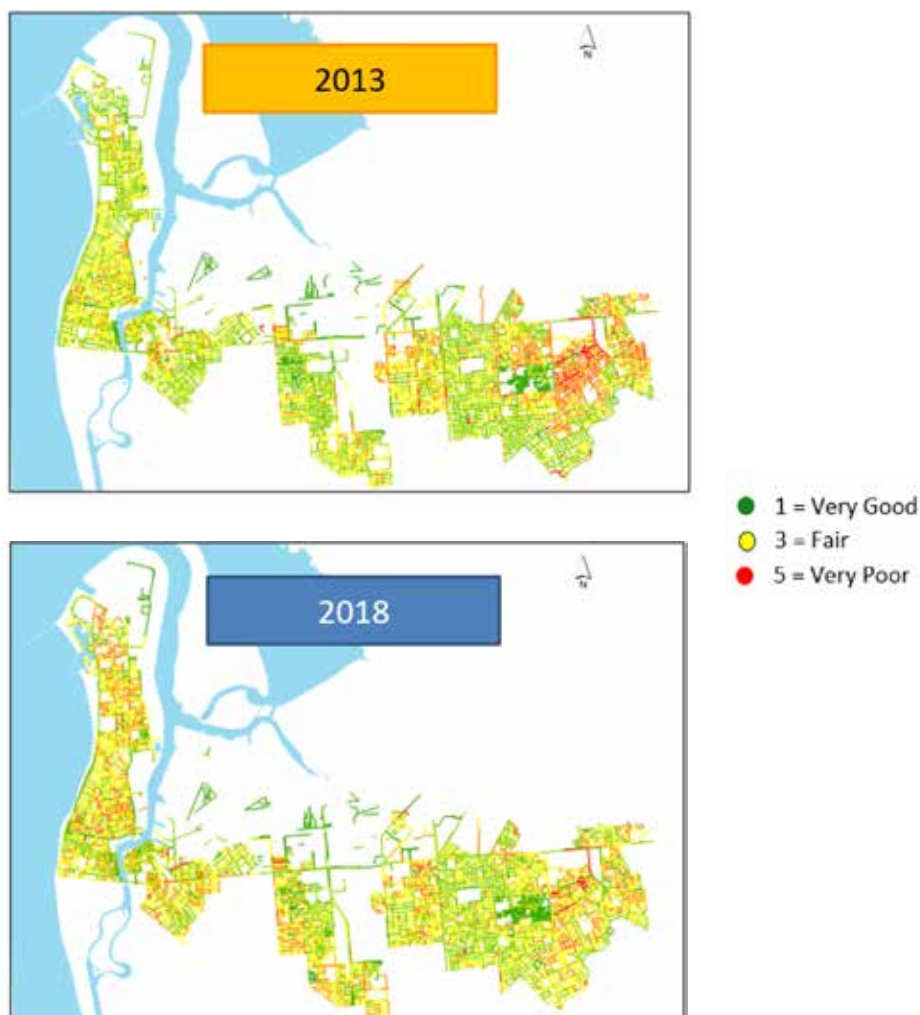


Chart 4.3: Comparison of 2013 and 2018 Footpath Condition



	2013	2018
Average condition	2.425	2.414

Image 4.1: Primary Pavement Decision Model



The comparison of the 2013 and 2018 condition maps indicate a significant improvement to the network in the Eastern zone around Oakden, Hillcrest, and Windsor Gardens. However, the northern end of the Lefevre Peninsula around Taperoo and North Haven are demonstrating a need for remedial works.

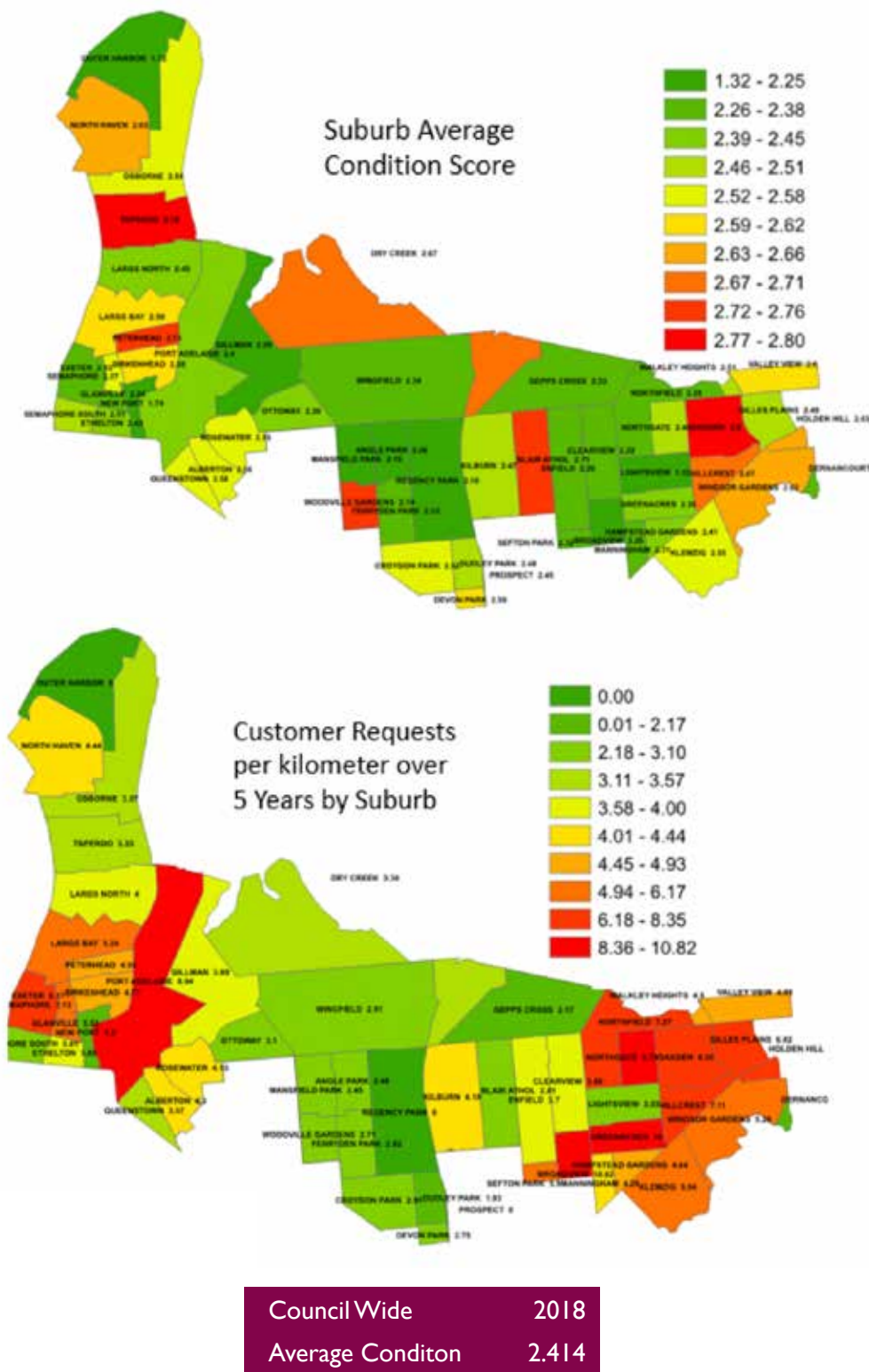


Image 4.2 compares the number of footpath related customer requests against the 2018 condition of each suburb. The map on the right illustrates the number of request per kilometre over a 5 year period. It identifies a correlation between the number of requests, the life of the asset and the underlying soil profile. As expected there are a higher number of requests in the East where there are highly reactive clays, urban infill and shorter life assets. What it also shows is that where there are higher pedestrian trafficked areas like Port Adelaide and Semaphore/Birkenhead there is an increase in requests, perhaps indicating a higher level of service is expected in these areas. It is interesting to recognise that suburbs such as Blair Athol, Woodville Gardens, and Taperoo that demonstrate less interaction through the customer request system have a higher degree of footpath degradation when comparing between the 2013 to the 2018 audit as detailed in image 4.1.

It is worth noting that the condition rating by suburb has a highly aggressive colour ramp, where a condition of 2.8 is identified as red. It must be remembered that the overall condition of the entire network is considered good at 2.414.







# 5 LEVELS OF SERVICE





# Customer Research and Expectations

In 2019, a survey was undertaken to measure Community Perception of the varying services provided by Council. The survey asked participants to rate the level of importance of Council services, and their level of satisfaction with the delivery of those services.

In order to collect the statistically relevant data, 401 households were invited to participate in a telephone interview. The survey targeted an equal number of households in each of the five SLA's (Statistical Local Area) in the Council area. These SLA's included:

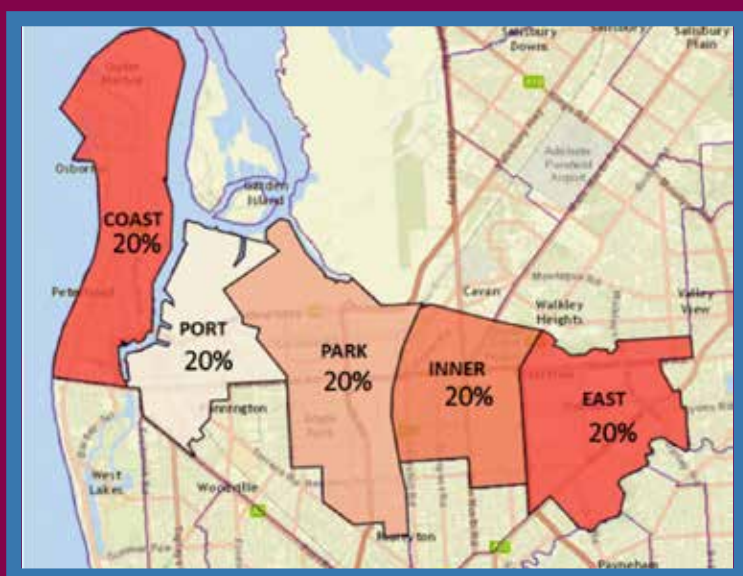
**East = 81**

**Inner = 80**

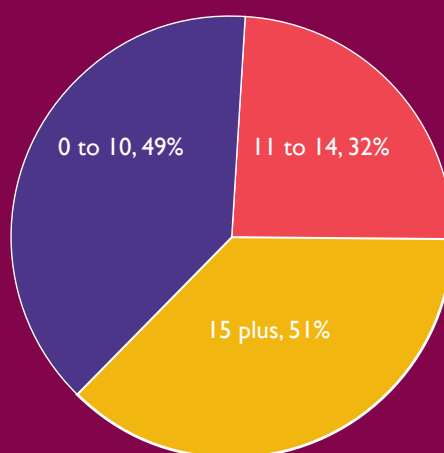
**Coast = 80**

**Parks = 80**

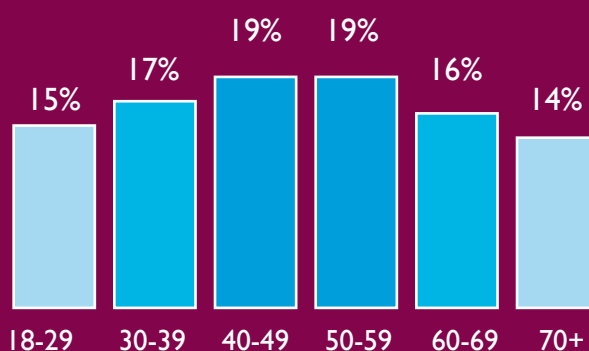
**Port = 80**



## Age of Children



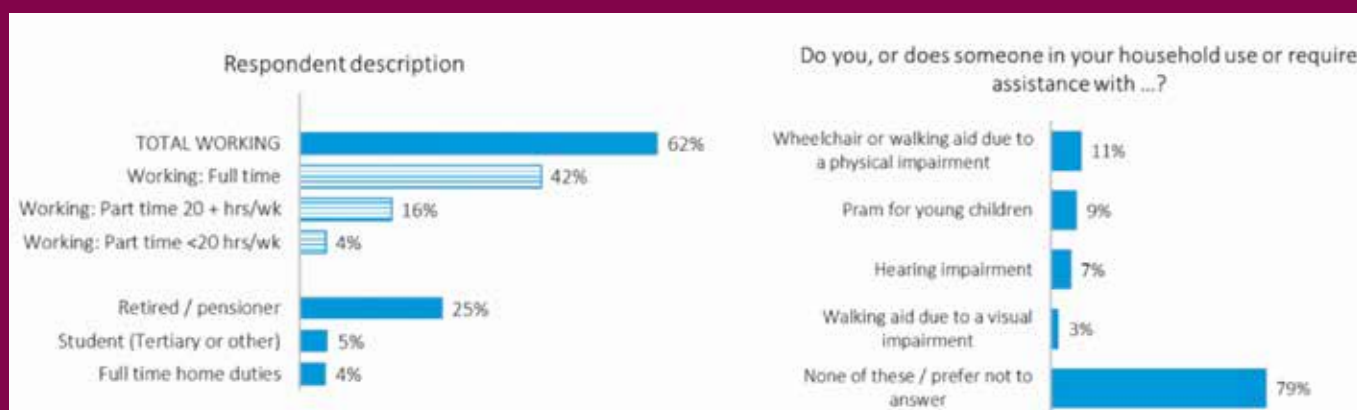
## Age



**Females**  
51%

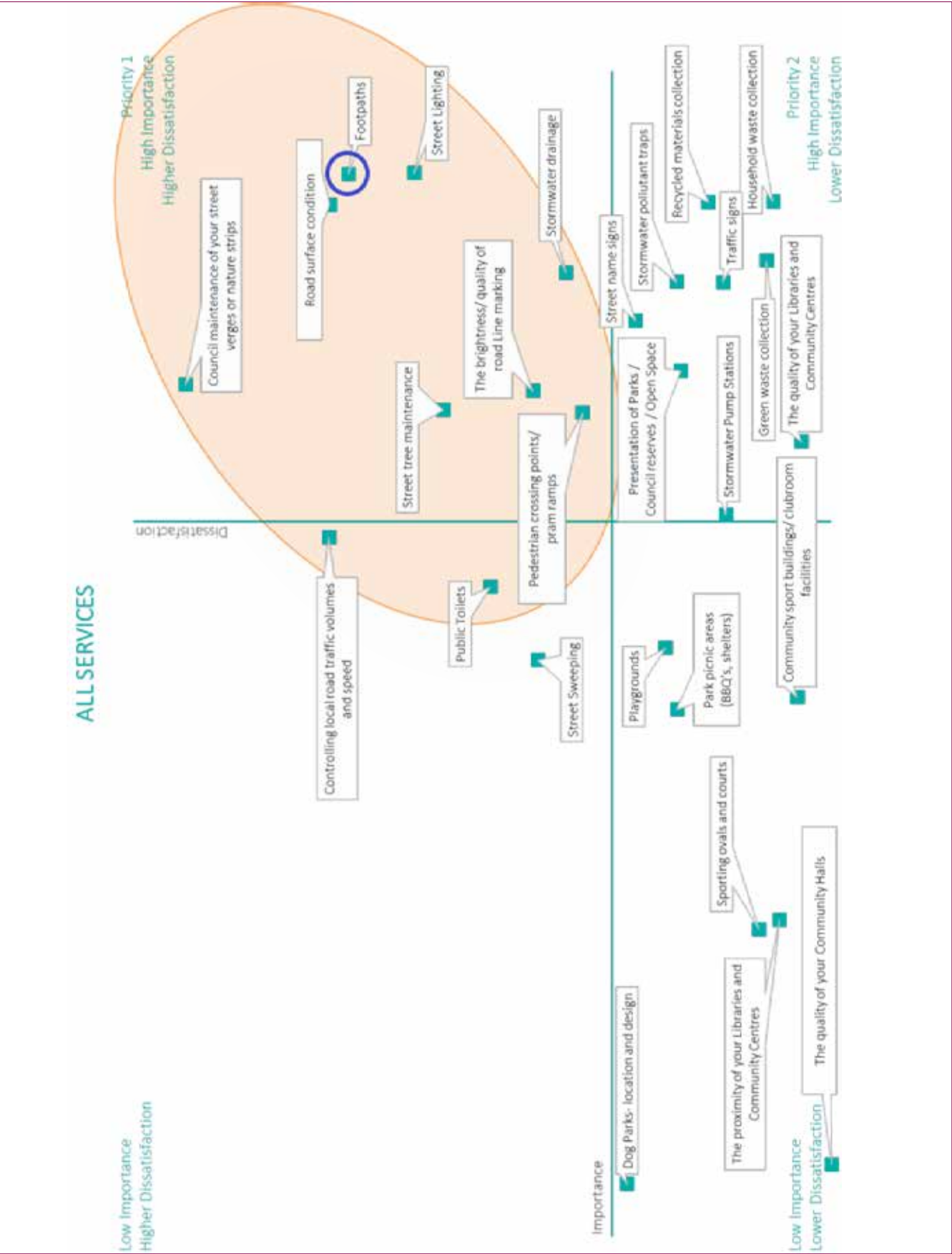


**Males**  
49%



The following quadrant chart: 5.1 shows the services surveyed, and the rating of level of importance and associated satisfaction.

Chart 5.1: Community Perception Quadrant Analysis





The survey result indicates that the community:

- places a high level of importance on footpaths.
- have a higher level of dis-satisfaction with footpaths compared to the majority of Council services surveyed.

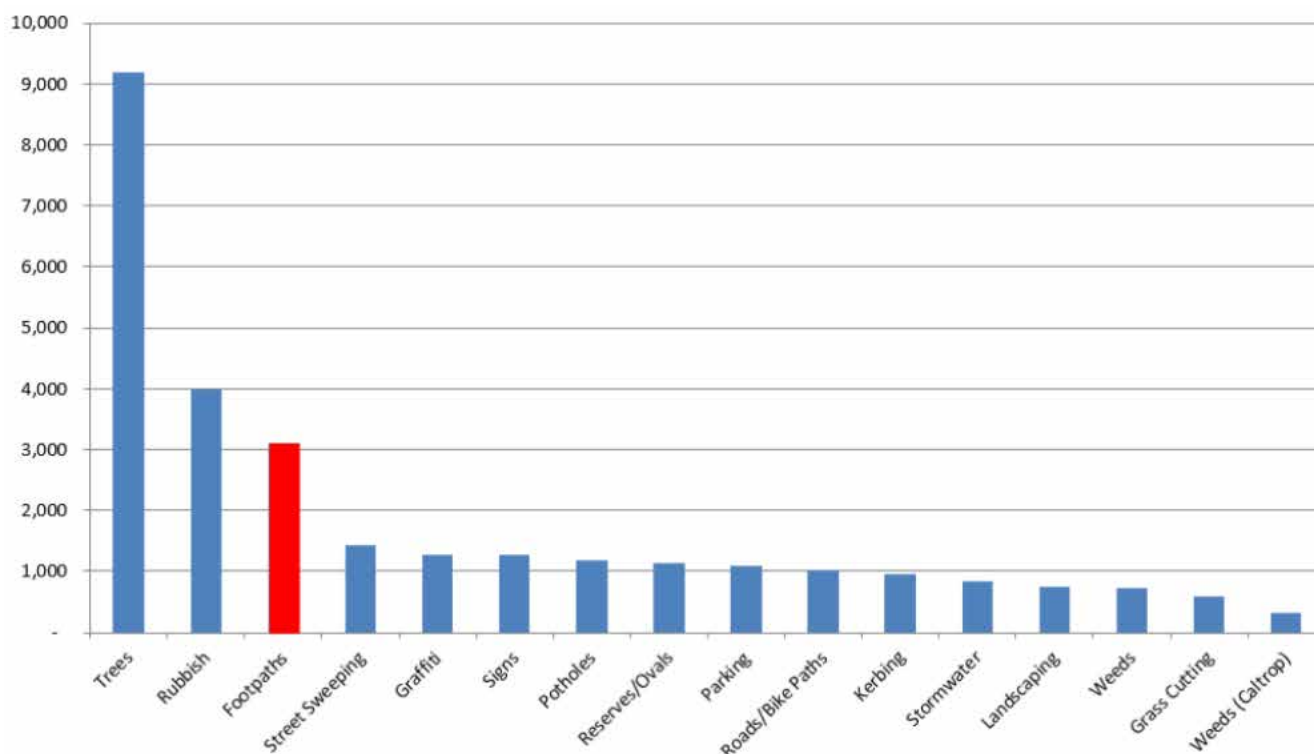
Both the importance and satisfaction scores remain consistent with the 2016 survey, which is detailed in the 2016 edition of the Footpath Asset Management Plan. An improvement to the 2016 survey ensured that qualitative feedback was received in 2018 which provided some context around the satisfaction scores. The two main themes from the community's feedback related to:

1. Tripping hazards
2. Wheelchair and mobility scooter access.

In response, measures to address these issues will be implemented as identified in the Improvement Plan (Section 10)

However, the results from the Community survey are interesting from a service level perspective. The community continue to rank a higher level of dissatisfaction with the service level provided by the footpath network. This is despite the general condition of the footpath network being in good condition over both the 2013 and 2018 condition audits.

*Chart 5.2: Number of Tasks from Customer Requests (2017/18 + 2018/19)*



The above chart: 5.2 identifies the amount of work tasks created through customer requests across the 2017/18 and 2018/19 period.

Footpaths is ranked third behind tree and rubbish related issues, with a total of 3,113 tasks created from community concerns – that equates to approximately 6 requests per working day during that time (i.e. 2 year period).

Obtaining community feedback via surveys together with monitoring the number of customer requests shows the importance of continuing the current levels of footpath maintenance and renewal. Alternative pro-active treatment options like footpath grinding will continue to improve the serviceability of the footpath network.



# 6 DEMAND ON SERVICES

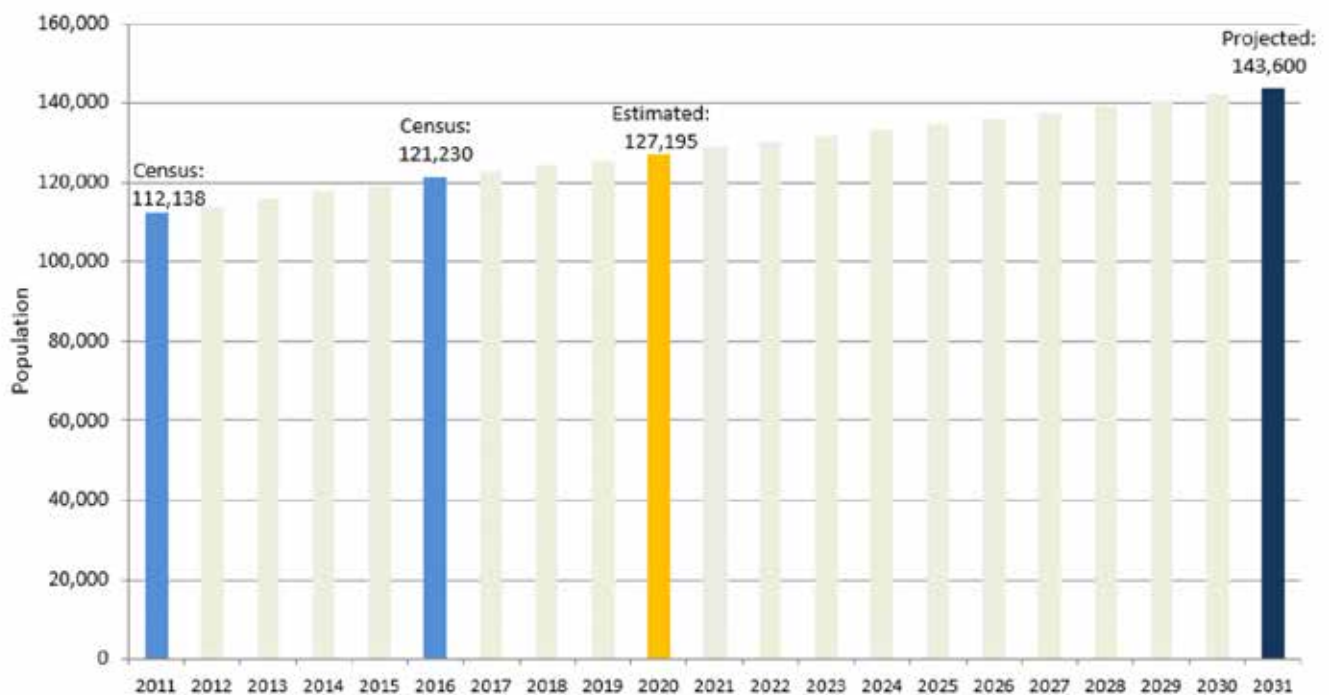




To preserve and improve the liveability of our city we need to design, plan and manage our road infrastructure assets in a strategic and innovative way that is focused on meeting the current and future needs of our diverse community. We also need to understand some of the key trends that will shape our city into the future. This includes understanding the impacts of projected demographic, environmental and technological changes.

Perhaps the most obvious demand driver is our ongoing population growth through urban infill. Our city has a growing population and with it an expanding local economy. This growth leads to an increase in demand for services and supporting infrastructure assets. The population at the 2016 Census was 121,230, an increase of 7.5% since the 2011 Census. The population is projected to continue to increase, with continued redevelopment of older areas and new land releases in Port Adelaide, Oakden, and Gilles Plains, with a projected population in 2031 of approximately 143,600 people.

*Chart 6.1: Population Estimates*



## Understanding current demand drivers

As discussed under Section 5: Levels of Service, Council engage with the Community to understand what assets are valued and how satisfied our residents are with the provision of these services. The feedback provided certainly assists in understanding what the Community demand from their rate contribution. Section 5 further identifies how Council uses the Customer Request system as a tool for interpreting the expectations of the community.

Further to these tools, Council administration has recently been investigating the use of cloud sourced Data from crowd sourced Applications such as Strava and the Internet of Things (IoT) data from Smart Cities programs to inform the footpath plan.

An example of this is the capture of data from applications such as Strava. Strava produce a global heat map of users activities over the last 2 years across the globe. It allows council to interrogate the data and analyse the use of our paths. The heatmap indicates users behaviour, where it is bright there is high activity, where it is dark there is little to no activity.

*Image 6.1: Crowd sourced application data*

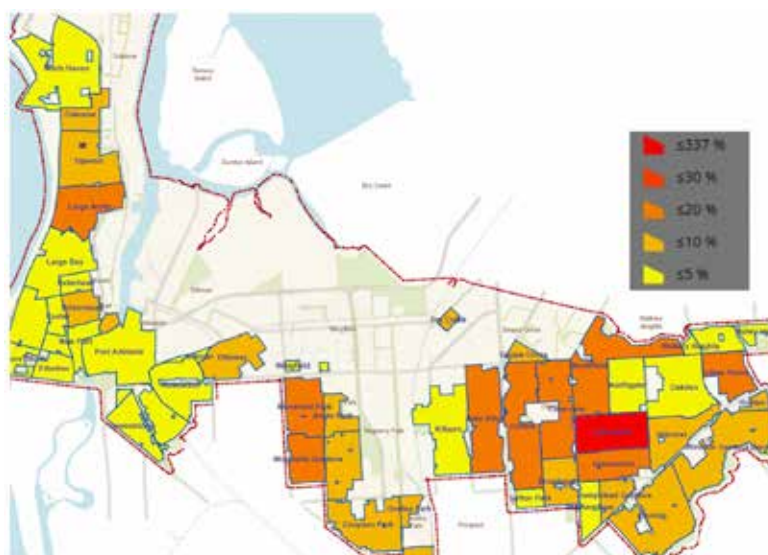


With Strava being a health related exercise app, this resource can be used to justify improvements in locations where people will be requiring a higher level of surface. The image above highlights high use by Strava users along Linear Park, the Esplanade, certain arterial and collector roads around residential areas, and sporting ovals. Whilst this is a narrow segment of the community it is envisaged that crowd sourced data such as Strava's heatmap will become more common in helping council identify high use areas and help in developing a more targeted Service standard for footpaths.





Image 6.2: Demands on Council's Footpath Service



4874

Trees and  
Shrubs

were planted by Council  
across the City's streets  
and Reserves in  
2015



18.3%

Almost 1 in 5  
Australians live  
with a disability.

- Equates to just over 23,000 people in PAE.
- Is likely to grow to about 26,000 people by 2031.



8.1%



At 30 June 2016, 8.1% of persons  
aged 16 to 64 in PAE were receiving  
a disability support pension.

(Higher than Greater Adelaide - 5.9%)

At the 2016 Census

6.9% of PAE residents reported  
needing help in their day to day lives  
due to disability.

12.6% of persons aged 15 years  
and over provided unpaid assistance  
to a person with a disability, long term  
illness or due to old age.

The City of PAE also attracts many  
workers and visitors each day and a  
proportion of these people will have  
experience with disability, either  
personally or as a carer.



# Future Demand - Looking ahead

Drivers affecting demand include:

- population change
- changes in demographics
- seasonal factors
- consumer preferences and expectations
- technological changes
- economic factors
- environmental awareness

A key Action of the Asset Management Strategy 2019-2024 has been to establish a Strategic Custodian Group to help identify and prepare for potential future demand factors that may or will impact the provision of Council services.

Image 6.2 is a snapshot of the broader social and environmental demands that the Strategic Custodian Group aim to identify, through reviewing other Council strategic initiatives and consideration of market and social trends. The Environment Strategy addresses urban temperature increases, biodiversity, and green house gas emissions by requiring an increase in tree planting. This highly supported strategy however will likely increase footpath maintenance expenditure through root growth. In addition, the Inclusive Communities Plan identifies that Council will likely have 26,000 people living with disability by 2031 and draws the need to maintain a high level of footpath condition to allow unrestricted access to the entire community.

Accordingly, this Asset Management Plan has targeted an OCI network condition score of 2.4 (page. 40) which will continue to drive process improvements and balanced expenditure levels to ensure the footpath network delivers the vital service of access and inclusion, whilst allowing for other services such as tree planting.

The following table is a list of future trends or factors that may impact the Footpath asset class. These could identify a potential gap in Council's planning or resource allocation that could cause a risk to achieving the current level of service expected [or perceived] to be expected by the community.

Demand Driver Type	Primary Factor	Relationship	How this will impact current operations	Potential response (ie Residual Treatment)
Infill Development	Smaller frontages & reduced Council owned footpath length	Urban Design	Reduced Council owned footpath lengths, where crossovers are the responsibility of the adjacent property owner. This may reduce maintenance requirements.	Review future maintenance works and require budget in relation to Council owned footpath lengths. Consider Development Plan Design guidelines, where greater row dwelling frequency will impact budget requirements in comparison to residential flat building or group dwelling developments.
Infill Development	Footpath damaged by new services trenching and poor reinstatement through new dwelling construction	Network Condition (depreciation & serviceability)	Footpath OCI reduced impacting remaining life as per accounting standards – and this increasing renew and maintenance expenditure.	Reinstatement Officer position to be appropriately resourced to follow up with utilities and builders/developers
Inclusive Communities	Increase of people living with disability	Urban Design, Maintenance	Approximately 23,000 people currently living with disability, likely to grow to 26,000 people.	Work closely with Inclusive Communities Plan. Ongoing review of condition, particularly trip hazards. Review design and construction methods of pram ramp locations, and road crossing points. Maintain tree pruning maintenance and educate private land owners to maintain access along footpaths.
Street Trees		Climate Adaptation, Infill Development	Due to smaller frontages, there will likely be reduced opportunity for streetscaping.	Requiring driveways to be paired so that they allow for the parking of one vehicle between them.





Demand Driver Type	Primary Factor	Relationship Type	How this will impact current operations	Potential response (ie Residual Treatment)
		Infill Development	Smaller Tree species replacing established trees, hence reduced tree canopy	Advocating the retention of existing street trees. Monitoring and reviewing large residential developments to maximise opportunities for trees Investigation and establishment of tree planting strategy and implementation plan
Surface temperatures	Footpath surface a contributor to surface temperature increase	Climate adaptation	Increase tree canopy in streets	Investigation and establishment of tree planting strategy and implementation plan
Surface Temperatures	Concrete footpath buckling through temperature variations	Climate adaptation	Increased maintenance	Review design and construction methods, particularly material types and expansion joints in extreme heat.
City growth	New assets from Greenfield developments	Urban Design	Increased resources required for asset management Additional maintenance & asset renewal	Documenting new assets in IPS Increasing budget for maintenance & asset renewal Increase in staff resource for maintenance & capital works projects.
Waste Management – Kerbside bins	Increased number of bins causing restriction to footpath use	Infill Development, Inclusive Communities (Access)	Increased resident complaints, Likelihood of a fourth bin for glass	LGA review of waste collection strategy – with Waste Management Industry leaders
Technology	Demand for alternative forms of transport	Demographic – Social trends	Use of electric bikes - Conflict between pedestrians and cyclists/scooters	Review bike plan and shallow routes through Integrated Transport Strategy
Financial	Asset deterioration through increase traffic, Environmental impacts, more infrastructure	Community	Impact to capital and maintenance budgets and potentially not achieving community levels of service	Continue with 4 year condition rating programs of all assets
Inclusive Communities	Well maintained footpath condition to encourage all residents the opportunity to exercise	Maintenance and Capital Expenditure	Increase Maintenance and Capital Works	Continue with 4 Year Condition audit to drive capital programs Continual review of service standards, particularly to customer requests.
Tourism	Appropriate infrastructure to support experience based tourism opportunities	Urban Design	Design of assets to support a vibrant visitor experience/economy. Creating a safe yet vibrant and active place.	Placemaking strategies in line with development of Footpath Design Guidelines.
Economic Development	High level footpaths to allow access and outside dining/display	Urban Design	Design of assets to support a vibrant economy. Creating a safe yet vibrant and active place	Review bike plan and shallow routes through Integrated Transport Strategy Design footpaths in Commercial areas and review Section 221's and 222's as per Local Government Act.



# 7 RISK MANAGEMENT





Another key Action of the Asset Management Strategy 2019-2024 has been to establish an Asset Management Risk Register that will identify critical risks that will result in loss or reduction in service from infrastructure assets or cause a 'financial shock' to the organisation.

**Diagram 7.1: Asset Management Risk Flow Chart**

Using the Corporate Risk template, the internal Footpath Custodian Group identified the following risks as summarised in Table 7.1. These risks are reported through the Asset Management Steering Group to Executive Management and Council.

RISK LIKELIHOOD TABLE			
Score	Frequency	Chance	Probability
Almost certain	Regularly and frequently occurs. Occurs 9 out of 10 times	Is expected to occur in most circumstances.	>90%
Likely	Has occurred infrequently over the past 2 years. More than 7 times in last 10 years.	There is a strong possibility that the event will occur in normal circumstances.	>65%
Possible	Has infrequently occurred on a number of occasions over the past 5 years.	The event could occur at some time.	>25%
Unlikely	History of an occurrence in the last 10 years. 2 or 3 times in this period.	There is a slight possibility that it could occur at some time.	<25%
Rare	History of an occurrence in last 25 years or no knowledge of any occurrence.	Highly unlikely will occur and only in very exceptional circumstances.	<5%





Table 7.1: Critical Risks and Treatment Plans

Risk Description	Consequence Category Desc	Inherent Risk	Treatment/Control	Residual Risk	Add Treatment Control	Risk Acceptable
Service Authorities works on Council footpaths	Service Delivery & Leadership	HIGH-A15	0.8 FTE x Reinstatements Officer responsible for (reactive) asset damage from service authorities Trialling 1 x FTE Civil Works Officer to proactively manage works effecting Council assets from Developments	HIGH-B12	Continue with the 1 x FTE Civil Works Officer to proactively manage works effecting Council assets from Developments Review Staff resourcing to maintain a proactive approach Improve the quality of works done by service authorities to meet Council's standards Agree on adequate time frames for service authorities to correcting poor works Review the time Council intervene's when authorities/builders have not met Council standards	No
Developers works on Council footpaths	Service Delivery & Leadership	HIGH-A15	0.8 FTE x Reinstatements Officer responsible for (reactive) asset damage from service authorities Trialling 1 x FTE Civil Works officer to proactively manage works effecting Council assets from Developments	HIGH-B12	Continue with the 1 x FTE Civil Works Officer to proactively manage works effecting Council assets from Developments Review Staff resourcing to maintain a proactive approach Improve the quality of works done by service authorities to meet Council's standards Agree on adequate time frames for service authorities to correcting poor works Review the time Council intervene's when authorities/builders have not met Council standards	No
The availability to procure the same material (eg pavers)	Service Delivery & Leadership	HIGH-A15	Custodian Group to prepare Footpath Policy and Design Guidelines- which specifies type of paver to be used in Council zone/region, colour, and size (in line with OHS requirements) Policy to limit paver selection to appropriate selection - determined by Custodian Group Policy and Design Guidelines to direct Statement of Requirements. To be used by Developers in major land divisions. Also for design of new/upgrade projects (inhouse or consultant design)	MODERATE D4	Design Guidelines and procurement practices to be monitored by Custodian Group	Yes
Residents incorrectly reinstating council footpath assets	Safety & Physical Assets	MODERATE-B8	Civil Works Officer inspection/photograph of footpath before and after private development associated with Development Application. Resident contacted to correct/make good defective works. Use of footpath imagery from footpath audits also used as a valuable resource. Condition audit every 4 years will also identify any defective work - however will be rectified at maintenance cost.	MODERATE-C6	Education of construction standards for reinstatement with Development Applications. Additional staff if deemed required.	Yes
Elected Member requests beyond adopted footpath works program	Service Delivery & Leadership	HIGH-A10	Capital program endorsed through Annual Business Plan All requests captured and considered in determining future works programs Works projected from 4 year Condition Audit program	MODERATE-B8	Promote awareness to Elected Members of the impact on budget and achieving endorsed program	Yes
Cross over rutting defects	Community Wellbeing	HIGH-A10	Reported through Customer Requests, and identified via Footpath Condition Audit (where extreme) Reinstatements Officer to review request and send letter to owner requesting restoration of defect To engage a position to oversee civil contract work for internal and developer/building works- No current position. Currently trialling the Civil Works Officer Position. To proactively have contractors comply with specifications to eliminate reactive repairs at Council cost.	HIGH-A10	Should owner not respond to letter requesting them to fix issue, Council to perform work and recover costs. Review outcome of trial of the Civil Works Officer and consider the effectiveness of the new position.	No
Managing Contractor quality of works	Safety & Physical Assets	HIGH-A10	Reinstatement Officer employed to follow up matters Some engineers adhering to Act Crossover specification referring to Sect 218 of Act	HIGH-A10	Review outcome of trial	No
Not understanding Councils legal obligation for crossovers with footpaths	Service Delivery & Leadership	HIGH-A10		HIGH-A10	Construction engineers and Footpath maintenance crew to be trained to have consistent approach. Need process to escalate to Reinstatements Officer for enforcement Footpath Policy	Yes

Risk Description	Consequence Category Desc	Inherent Risk	Treatment/Control	Residual Risk	Add Treatment/Control	Risk Acceptable
Damage to private property when undertaking maintenance	Service Delivery & Leadership	<b>MODERATE-A5</b>	Wear cost of rectifying damage	MODERATE-A5	Include design requirements in Statement of Requirement document ie offset from private boundary	Yes
Footpaths gradients not meeting Australian standards	Safety & Physical Assets	<b>MODERATE-C9</b>	Review need for footpath if gradient and straight line length considered dangerous.	MODERATE-D4	No further action	Yes
Council does not currently have a footpath policy	Service Delivery & Leadership	<b>HIGH-A10</b>	Footpath Custodian Group discussion React to Elected Member and resident requests	<b>HIGH-A10</b>	Develop a Policy through Custodian Group, that will provide direction on Replacements/Upgrades/New, Design requirements, decision processes. maintain proactive grinding program	Yes
The impact of natural assets on footpaths (trees)	Community Wellbeing	<b>HIGH-A15</b>	Reactive Maintenance Footpath Program Proactive CWP Condition rating program Proactive grinding program	MODERATE-B8	Review tree planting policy and selected tree species list Design verges to allow for room for trees Alternative footpath treatments Management of Community expectations and service standards Streamline works to work more efficiently Review budget and resources to deliver the works	Yes
The impact of natural assets on footpaths (trees)	Safety & Physical Assets	<b>HIGH-A10</b>	Same treatment as Community	MODERATE-C6	As per the Community risk	Yes
Changes in Community service standards and expectations	Community Wellbeing	<b>HIGH-B12</b>	Aim to meet service standards in an effective manner with current resource levels Attending priority requests and making area safe, attending later Grinding program being trialled	<b>HIGH-B12</b>	Look at creating a hierarchy of footpaths based on traffic and community use Review service standards Plan reactive works in a streamlined process Hazard identification program for proactive works	No
Shared use footpaths - clash of uses	Safety & Physical Assets	<b>MODERATE-B8</b>	Signage and Linemarking currently exist	MODERATE-B8	Signage and Linemarking currently exist Education through media	Yes
Lack of structural assessment of bridges	Safety & Physical Assets	<b>HIGH-C15</b>	Only visual assessments for condition and valuation purposes. Any concerning issues identified will be escalated to structural assessment.	MODERATE-E5	Identify High Risk bridges for higher level structural assessment, in accordance with the condition rating schedule in AM Strategy.	Yes
Reducing current level of capital expenditure	Community Wellbeing	<b>HIGH-A15</b>	Review funding required through Long Term Financial Plan to maintain agreed works programs Undertake regular condition audits to monitor overall condition of network	MODERATE-C6	Utilise customer requests to validate capital and maintenance programs Utilise network condition survey to validate forward capital and maintenance works programs Continue to engage with community to develop a Service Charter on Levels of Service	Yes



Risk Description	Consequence Category Desc	Inherent Risk	Treatment/Control	Residual Risk	Add Treatment Control	Risk Acceptable
Reducing current level of capital expenditure	Safety & Physical Assets	<b>HIGH-B12</b>	Review funding required through Long Term Financial Plan to maintain agreed works programs Undertake regular condition audits to monitor overall condition of network	MODERATE-C6	Utilise customer requests to validate capital and maintenance programs Utilise network condition survey to validate forward capital and maintenance works programs Track incident reports to monitor obvious trends in insurance claims	Yes
People with physical impairment having a quidable access across footpath network	Community Wellbeing	<b>HIGH-A15</b>	Program to upgrade Pram Ramps to DDA standard - current target 50 per year	MODERATE-B8	If significant community concern regarding the rate of pram ramp upgrade, to increase annual target. Consult with affected residents in determining travel routes.	Yes
Utilising recycled products and the impact on life expectancy on the asset	Service Delivery & Leadership	<b>MODERATE-C9</b>	monitor the performance of the footpaths in comparison to footpaths (not using the recycled material) Research and studies from other Councils Discontinue the rollout of this material across the road network if performance reduced significantly	MODERATE-D4	Discontinue the rollout of this material across the road network if performance reduced significantly	Yes
The impact of natural assets on footpaths (trees)	Service Delivery & Leadership	<b>EXTREME-A25</b>	Selected tree species list Design standards for footpaths and trees Root guards for trees Consult with Parks & Gardens about improved solutions	MODERATE-C9	Review tree planting policy and selected tree species list Design standards for footpaths and trees - under current review Design verges to allow for room for trees Alternative footpath treatments	Yes
Slip hazards caused by trees	Safety & Physical Assets	<b>HIGH-B12</b>	Selected tree specie list Consult with Parks and Gardens about improved solutions	MODERATE-C9	Review tree planting policy and selected tree specie list Audit paths with risk type tree locations, and introduce proactive footpath sweeping in high risk path locations - this will require a significant increase to operations budget	Yes



# 8

## WHAT DOES IT COST?





# Maintenance Plan

Routine maintenance is the regular on-going work that is necessary to keep assets at an agreed level of service, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

Maintenance includes all actions necessary for maintaining an asset to an appropriate service condition – which includes various lift and relay of paving, cutting and replacing footpath bays, and reinstating sections of asphalt paths.

*Table 8.1: Previous Years Actual Maintenance Expenditure*

Year	Planned and Specific
2014/15	\$2,297,819
2015/16	\$2,250,776
2016/17	\$2,775,204
2017/18	\$2,518,451
2018/19	\$2,100,599
2019/20	\$2,464,093

\*Average Actual spend from 2014/15 to 2018/19 has been \$2,401,000

*Table 8.2: Past Network Length by Material*

Asset category	Length (km's)		
	2012	2016	2020
Asphalt	63.84	63.02	54.75
Concrete	753.82	769.81	809.28
Pavers	297.25	349.53	359.89
Rubble	39.95	18.8	19.9
<b>Total</b>	<b>1154.85</b>	<b>1201.16</b>	<b>1243.82</b>

\*The network length has increased by 4% following each condition audit. This is approximately 11km's or 0.8% per year.



Chart 8.1: Present Value (PV) Footpath Maintenance Spend per Km

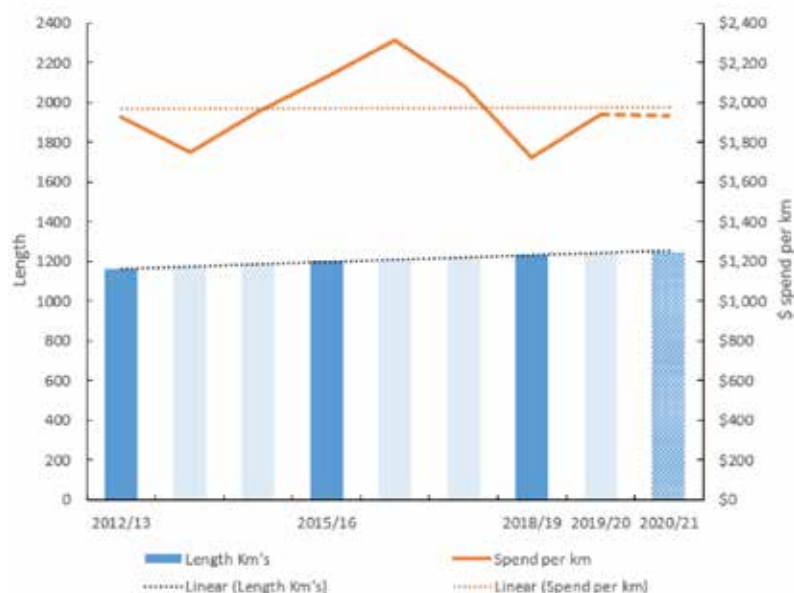


Chart 8.1 indicates that Council investment into maintaining the network had increased significantly following the 2013/14 condition audit, resulting in a slight improvement in the network OCI score post 2018/19 audit (as discussed on page 16). The increase in maintenance budget across the early stages of this period was a result of targeted action in the eastern zone of Council as a direct result of analysing the condition data from the earlier audit. This demonstrates that the level of Maintenance expenditure by Council will influence the result on the network OCI score following the next audit in 2022/23.

The above linear trend lines for both network growth (length) and spend per km appear to be narrowing in the projection of 2020/21. As discussed on the following page, this AMP is proposing that the level of expenditure should increase in line with network growth to sustain the current level of footpath condition, and ultimately achieving the OCI benchmark of 2.4 (as further detailed on page 40).

As well as the additional length of footpaths in newly constructed Greenfield development sites, the impact of tree growth in these developments will create an ongoing demand for footpath maintenance.

This is particularly relevant to adhering to community expectation levels (customer requests) and achieving the vision statement of the City Plan 2030.

As per Chart 5.2 (p.23), Customer Requests for footpath works are the third highest of all infrastructure related services, and the Community Perception Survey 2019 identified footpaths as highly important.

## Keeping up with Growth

The total length of the footpath network increases annually mostly as a result of new assets from major land developments. Since 2012 the network has grown at an average rate of 0.8% per year – providing around 40kms every 4 years, or 10km's per year. Using a conservative growth rate of 0.8%, chart 8.2 demonstrates the need to budget maintenance expenditure in-line with projected network growth.

Table 8.3: Growth through Major Land Development

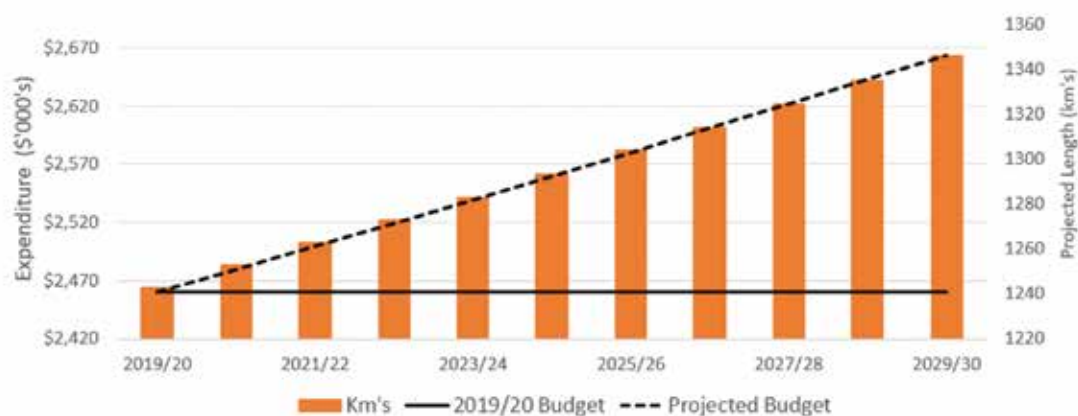
Major Land Development since 2010	New Major Land Developments
Lightsview	Dock I
Northridge (Enfield High school)	Blair Athol Urban Redevelopment
Croydon Park TAFE site	Feltchers Slip
Angus Estate (Mansfield Pk Primary School)	Neptune Tce
Osmond Tce (Gilles Plains)	Strathmont Centre site (Oakden)



Referring to the previous year's expenditure in table 8.1, the average spend over the period was \$2.46M. The 2019/20 budget of \$2.4M is in line with this average spend.

The following chart 8.2 is projecting that the annual maintenance expenditure should increase by approximately \$25,000 per year to keep pace with the projected network growth.

Chart 8.2: Maintenance Expenditure to Projected Network Growth



## Projecting Capital Expenditure for Long Term Planning

Renewal and replacement expenditure - is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original required service potential.

Upgrade Works - is defined as works over and above restoring an asset to its original service potential. This includes a major shift in asset performance, such as removing an asphalt path and replacing it with a concrete or paved path. Both concrete and pavers have a longer useful life, higher install cost, and a varied depreciation rate.

Table 8.4: Previous Years Actual Capital Expenditure

Year	New/Upgrade	Renew/Replace	Total Capital Spend
2014/15	\$2,006,832	\$1,186,239	\$3,193,071
2015/16	\$2,520,087	\$319,983	\$2,840,070
2016/17	\$2,762,689	\$157,082	\$2,919,771
2017/18	\$615,118	\$132,156	\$747,274
2018/19	\$162,563	\$2,304,169	\$2,466,732
2019/20 (Budgeted)	\$1,089,700	\$2,289,700	\$3,379,400

# What are our expenditure objectives? - Establishing a Benchmark

Comparing the 2013 Condition audit for network performance and reviewing our level of expenditure to achieve a similar, albeit slightly better condition in 2018 establishes a benchmark for network performance. This further provides a financial model to maintain what is considered a reasonable level of service for our Community.

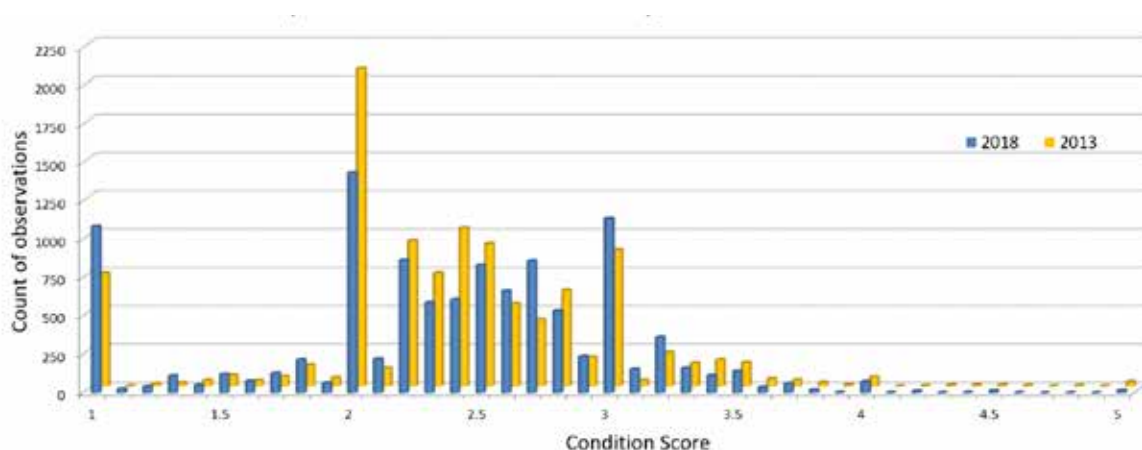
The average capital budget over the last 4 years has been \$2.6M, which in conjunction with an average maintenance spend of \$2.4M, has maintained the Overall Condition Index (OCI) of the network to a consistent condition score of 2.4.

This total expenditure has proven reliable to maintain the condition of our footpath to a service level expected by the community. This is further justified by the number of footpath tasks created through customer requests along with the results from the community perception survey that identified the footpath asset being regarded as extremely important with a higher level of dissatisfaction when compared to other asset classes.

Should the Elected Members require a higher level of service, then a higher level of expenditure will be required to achieve the desired target.

Currently, the Long Term Financial Plan is projecting a Capital renewal budget of \$2.4M for Maintenance and \$2.4M for Capital.

Chart 8.3: Comparison of 2013 and 2018 Footpath Condition and OCI scores



	2013	2018
Average condition	2.425	2.414

Having the benefit of using 2013 and 2018 OCI scores, this Footpath Asset Management Plan suggests that the Performance indicator should be targeted at 2.4

**In 2024, Council will:**

**Objective 1: Achieve a minimum network OCI score of 2.4 (where 1 is good and 5 is poor)**





# What should we budget to achieve our objectives?

## Capital Renewal

Chart 8.4 (p.42) provides a visual representation of the data captured during the 2018 condition audit. The grey shaded area depicts the expenditure budget required per year, which has been calculated using the average condition of segments (street corner to street corner) with remaining life and cost of materials. It must be noted that this is a snapshot in time, which reflects the condition of the network at the time of the audit and as such does not allow for builder's damage or environmental factors that are unpredictable and constantly impacting the life of the footpath asset or maintenance. This damage is accounted for within the 2.5M Maintenance budget.

As previously discussed under Section 4 and portrayed by chart 4.1, the overall condition index (OCI) of the network is good. This is further reflected in the following chart 8.4, where little work is identified for the first 15 years, with some minor replacement required at years 2, 3, and 10 at an approximate total cost for these three years combined of \$2.5M. However, with a significant expenditure projected in years 16 and 20, the average expenditure required to replace the footpath across the first 20 years using this static example of footpath degradation is estimated at \$630,000 per year.

The current network condition reflects the Maintenance and Capital Renewal investment made over previous years towards rectifying defects and replacing large sections of footpath. By continually adding life to the network through this ongoing investment, there is minimal expenditure forecast for the initial 10 years which is reflected at a nominal \$320k per year across this period. However, should this level of expenditure determine the LTFP Renewal budget, Council will incorporate a high level of risk by failing to establish a budget that takes into account the longer term renewal requirement based on the current remaining life of the network. The future forecast from years 2035 onwards begins to identify extreme expenditure levels to maintain large portions of the network. The expenditure requirements in the final 20 year projection is equivalent to approximately a third of the total network replacement cost.

Using Annual Depreciation as an indicator of consumption, the proposed Capital Renewal spend of \$1.3M in conjunction with the \$2.5M Maintenance budget will continue to sustain the network to its current service level. Despite the average renewal spend for the initial 10 year period being \$320k, chart 8.4 demonstrates the need to continue with past Maintenance and Renewal expenditure levels, to ensure that the annual rate of depreciation is matched.

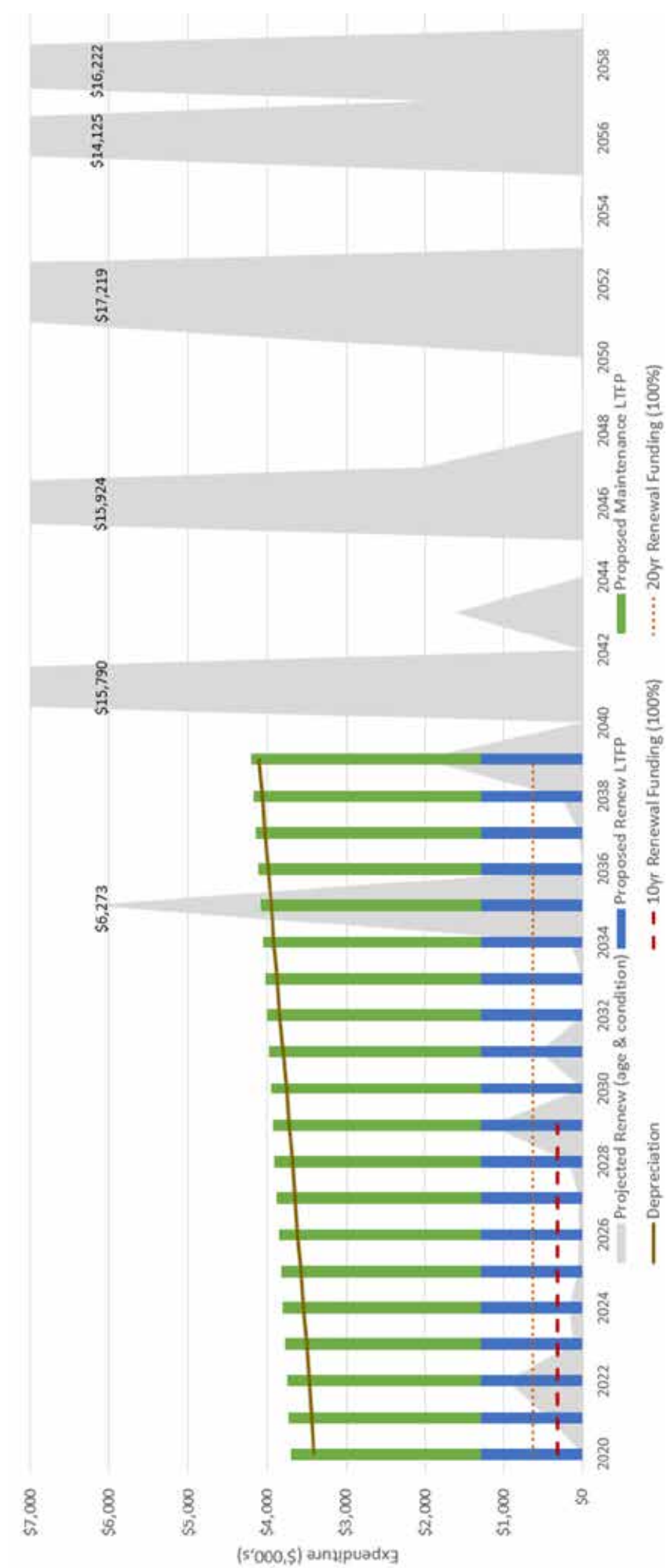
As Depreciation and Maintenance are both operational expense types, investigation towards capitalising a higher percentage of Maintenance work has been identified as an improvement strategy in Section 10. It will be important to consider the cost effectiveness and resource requirements to capture this information, given the impact on the asset register and valuation records.

In reference to chart 8.4, the funding required for the initial 10 year projected renewal period is approximately \$320k a year. This is a representation of the current good condition of the network which is a result of previous year's investment into Maintenance and Capital projects towards rectifying defects and replacing entire footpath segments. However, as the above projected renewal forecast is based on the remaining life of the network, the future forecast from years 2035 onwards begins to identify extreme expenditure levels to maintain large portions of the network.

Using Annual Depreciation as an indicator of consumption, the proposed Capital Renewal spend of \$1.3M in conjunction with the \$2.5M Maintenance budget will continue to sustain the network to its current level.



Chart 8.4: Proposed Renewal Budget against Projected Depreciation Expense



Note: This is a static model and does not allow for environmental or builder degradation which is regulated by ongoing maintenance.





## Capital Upgrade

At the time of preparing this AMP, the 2020/21 LTFP had yet been adopted by Council. Accordingly, the 2019/20 LTFP had been used as the comparison of the expenditure proposed from the analysis performed in developing this AMP.

The 2019/20 LTFP has Council's upgrade budget at \$1.45M per year – which has been based on previous year's Actual annual spend. Council has been highly committed to the undergrounding of overhead power lines under the ESCOSA PLEC (Essential Services Commission of South Australia, Power Line Environment Committee) program, and has contributed significant upgrade budget to secure grant funding opportunities. The undergrounding of powerlines has driven the strategic upgrade of asphalt paths to longer life materials along arterial roads.

With the PLEC projects finalising, and through the process in developing this AMP, Council staff have reviewed the need to maintain the \$1.45M as contained in the previous 2019/20 LTFP. Administration do however believe that a \$1M (PV) budget should be maintained to allow for Placemaking opportunities and Streetscape upgrades, such as the current Jetty Rd Largs Bay project. The upgrade of pram ramps to DDA standard, and improved paths in high pedestrian traffic locations, are of significant focus, aligning with the Inclusive Communities Plan 2019-2024.

This AMP is proposing to reduce the LTFP Capital Upgrade projections from \$1.45M to \$1M per year for the next 10 years, to enable strategic upgrade projects.

## Informing the Long Term Financial Plan

The proposed Capital Renewal expenditure of \$1.3M per year will deliver the following Renewal Funding Ratio's

**10 year: 407%**

**20 year: 206%**

Although the 10 year Renewal Ratio appears high, the proposed \$1.3M both correlates with past expenditure and is justified through the number of Customer Requests received. The footpath asset is unique, where its replacement need is usually driven by other factors rather than the age based deterioration of material. Tree root lifts, reactivity of soil, and builder's damage are all determining factors for the unpredictability of reduced life. Thus, maintaining a high renewal budget is important to ensure that the condition of the entire network will satisfy the expectations of the community.

Using the Annual Depreciation to determine the combined total of Maintenance and Renewal budget provides a strong indicator to measure whether Council is appropriately funding replacement against consumption – given that depreciation is a factor of consumed life. The combination of these budget types will match the annual depreciation expense. There is concern that Maintenance is an operating expense, like depreciation. The Improvement Plan has established a review of how this Council could better capture maintenance activities that can be capitalised through contributing additional life to the asset. The cost benefit of doing so will be analysed.

A Capital New/Upgrade budget of \$1M is further proposed to ensure that beautification and place-making activities can continue in street upgrade projects, along with satisfying access and inclusion initiatives across Council's strategic platform.

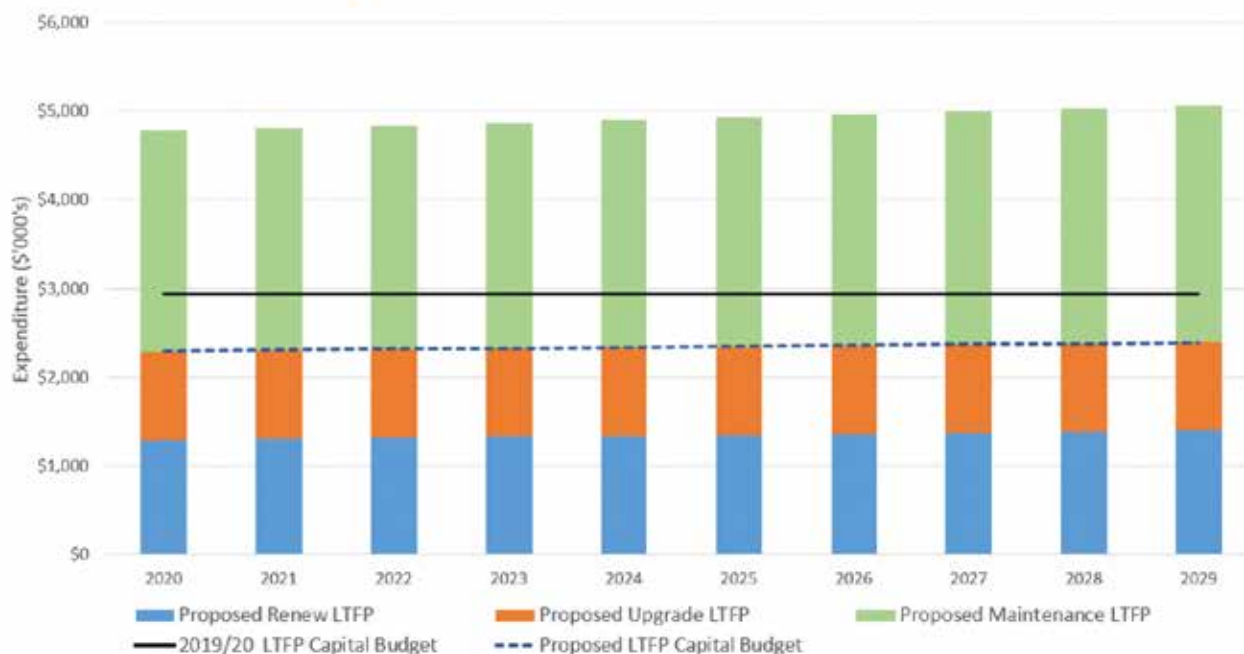




Chart 8.5 depicts the total expenditure proposed from this AMP, against the current LTFP forecast. It must be noted that this AMP is reducing the Capital Upgrade/New budget by \$450k.

The expenditure projected will continue to deliver the current level of footpath condition captured within the past 2 network condition audits – thus, achieving the benchmark objective of total OCI score of 2.4.

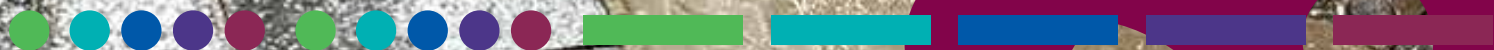
Chart 8.5: Projected Maintenance and Capital Expenditure for LTFP





# 9

## FINANCIAL SUMMARY





YEAR END 30 JUNE	MAINTENANCE BUDGET	LTFP RENEWAL BUDGET	LTFP UPGRADE BUDGET
2020/21	\$2,480	\$1,300	\$1,000
2021/22	\$2,500	\$1,310	\$1,000
2022/23	\$2,520	\$1,321	\$1,000
2023/24	\$2,540	\$1,331	\$1,000
2024/25	\$2,560	\$1,342	\$1,000
2025/26	\$2,580	\$1,353	\$1,000
2026/27	\$2,601	\$1,364	\$1,000
2027/28	\$2,622	\$1,375	\$1,000
2028/29	\$2,643	\$1,386	\$1,000
2029/30	\$2,664	\$1,397	\$1,000

All dollar values are in (\$'000)'s

Please note that the above figures are in present value, and are subject to CPI increase each year

A network growth rate of 0.8% has been applied to the Renew and Maintenance budget

Important to note that the above table is exclusive of Bus Stop and Shelter improvements which are costed to the Footpath construction program.



# 10 IMPROVEMENT PLAN





Item Ref	Item Description	Responsibility
1.	Investigate the potential of capitalising a higher percentage of Maintenance work	Asset Planning
2.	Investigate crowd sourced data as an input towards network performance, or locations of high usage	Asset Planning
3.	Capture of Strategic initiatives across Council, that will require New or Upgraded footpath assets	Strategic Custodian Group
4.	Formalise the definition for Upgrade works, in comparison to Renewal	Asset Accountant
5.	Capture cost recovery from Builder and Utility damage	Reinstatements Officer
6.	Develop a Footpath Policy	Asset Planning
7.	Develop design guidelines that will control procurement practice and be provided to external stakeholders that will control material and construction methods across Council	Asset Planning
8.	Annual review of unit rates	Asset Accountant / Asset Planning
9.	Research and trial 'recycled' material options in line with the Environment Strategy, with a focus on permeable surface types and reduced heat capture. To consider the climate resilient initiatives within the AdaptWest Climate Change Adaptation Plan.	Asset Planner / Design / Custodian Group



# GLOSSARY





## Annual service cost (ASC)

### 1) Reporting actual cost

The annual (accrual) cost of providing a service including operations, maintenance, depreciation, finance/ opportunity and disposal costs less revenue.

### 2) For investment analysis and budgeting

An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operations, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

## Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

## Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

## Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

## Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

## Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

## Asset management (AM)

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

## Asset renewal funding ratio

The ratio of the net present value of asset renewal funding accommodated over a 10 year period in a long term financial plan relative to the net present value of projected capital renewal expenditures identified in an asset management plan for the same period [AIFMG Financial Sustainability Indicator No 8].

## Average annual asset consumption (AAAC)\*

The amount of an organisation's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life (or total future economic benefits/service potential) and totalled for each and every asset OR by dividing the carrying amount (depreciated replacement cost) by the remaining useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

## Borrowings

A borrowing or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

## Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.



## Capital expenditure - expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future operations and maintenance costs, because it increases the organisation's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

## Capital expenditure - new

Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

## Capital expenditure - renewal

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

## Capital expenditure - upgrade

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the organisation's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

## Capital funding

Funding to pay for capital expenditure.

## Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

## Capital investment expenditure

See capital expenditure definition

## Capitalisation threshold

The value of expenditure on non-current assets above which the expenditure is recognised as capital expenditure and below which the expenditure is charged as an expense in the year of acquisition.

## Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

## Class of assets

See asset class definition

## Component

Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

## Core asset management

Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision-making).

## Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes one-off design and project management costs.

## Critical assets

Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than non-critical assets.





## Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

## Deferred maintenance

The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset.

## Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value.

## Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

## Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

## Economic life

See useful life definition.

## Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital outlays.

## Expenses

Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or increases in liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

## Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

## Financing gap

A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

## Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

## Impairment Loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

## Infrastructure assets

Physical assets that contribute to meeting the needs of organisations or the need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no separate market value.

## Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business.

## Key performance indicator

A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

## Level of service

The defined service quality for a particular service/ activity against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental impact, acceptability and cost.

## Life Cycle Cost \*

1. Total LCC The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.

2. Average LCC The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises average operations, maintenance expenditure plus asset consumption expense, represented by depreciation expense projected over 10 years. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

## Life Cycle Expenditure

The Life Cycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long term financial plan over 10 years. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.

## Loans / borrowings

See borrowings.

## Maintenance

All actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating, eg road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

- **Planned maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

- **Reactive maintenance**

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

- **Specific maintenance**

Maintenance work to repair components or replace sub-components that needs to be identified as a specific maintenance item in the maintenance budget.

- **Unplanned maintenance**

Corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required service or to maintain its level of security and integrity.

## Maintenance expenditure \*

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

## Materiality

The notion of materiality guides the margin of error acceptable, the degree of precision required and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

## Modern equivalent asset

Assets that replicate what is in existence with the most cost-effective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques





## Net present value (NPV)

The value to the organisation of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows after deducting the value of the discounted total cash outflows arising from eg the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

## Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

## Operations

Regular activities to provide services such as public health, safety and amenity, eg street sweeping, grass mowing and street lighting.

## Operating expenditure

Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, eg power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is on the other hand included in operating expenses.

## Operating expense

The gross outflow of economic benefits, being cash and non cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

## Operating expenses

Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

## Operations, maintenance and renewal financing ratio

Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

## Operations, maintenance and renewal gap

Difference between budgeted expenditures in a long term financial plan (or estimated future budgets in absence of a long term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).

## Pavement management system (PMS)

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

## PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

## Rate of annual asset consumption \*

The ratio of annual asset consumption relative to the depreciable amount of the assets. It measures the amount of the consumable parts of assets that are consumed in a period (depreciation) expressed as a percentage of the depreciable amount.

## Rate of annual asset renewal \*

The ratio of asset renewal and replacement expenditure relative to depreciable amount for a period. It measures whether assets are being replaced at the rate they are wearing out with capital renewal expenditure expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

## Rate of annual asset upgrade/new \*

A measure of the rate at which assets are being upgraded and expanded per annum with capital upgrade/new expenditure expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

## Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

## Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operations and maintenance expenditure.



## Recurrent funding

Funding to pay for recurrent expenditure.

## Rehabilitation

See capital renewal expenditure definition above.

## Remaining useful life

The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining useful life is useful life.

## Renewal

See capital renewal expenditure definition above.

## Residual value

The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

## Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

## Risk management

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

## Section or segment

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

## Service potential

The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/ public sector to value assets, particularly those not producing a cash flow.

## Service potential remaining

A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).

## Specific Maintenance

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

## Strategic Longer-Term Plan

A plan covering the term of office of councillors (4 years minimum) reflecting the needs of the community for the foreseeable future. It brings together the detailed requirements in the Council's longer-term plans such as the asset management plan and the long-term financial plan. The plan is prepared in consultation with the community and details where the Council is at that point in time, where it wants to go, how it is going to get there, mechanisms for monitoring the achievement of the outcomes and how the plan will be resourced.

## Sub-component

Smaller individual parts that make up a component part.

## Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.





## Value in Use

The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits.

Source: IPWEA, 2009, Glossary

Additional and modified glossary items shown \*





CITY OF  
Port Adelaide Enfield