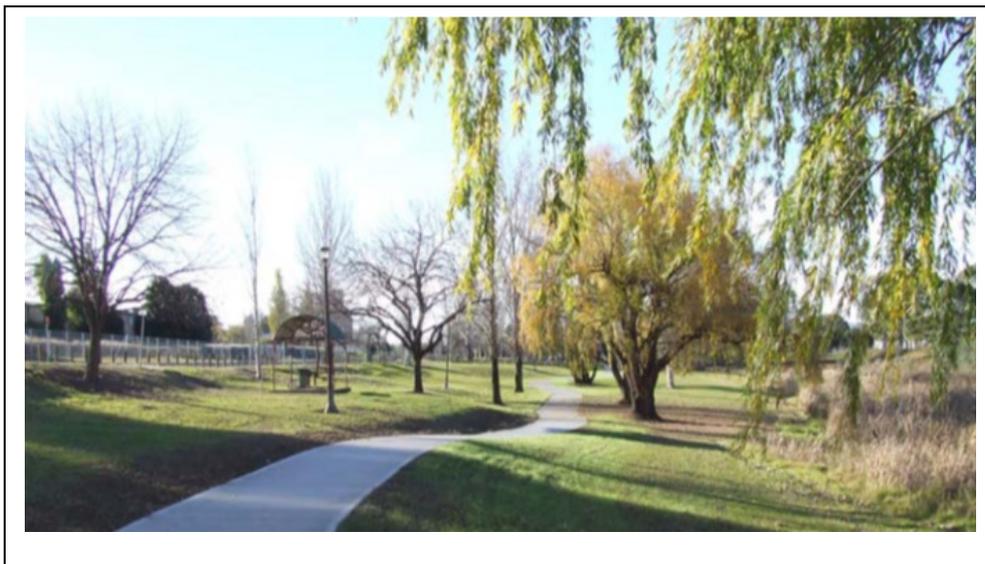


**Liverpool Plains Shire Council**



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# Footpath Asset Management Plan



Version 2.1

June 2017

Document Control

**Asset Management Plan**



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# 1 EXECUTIVE SUMMARY

## 1.1 The Purpose of the Plan

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

This footpath asset management plan details information about footpath assets including actions required to provide an agreed level of service in the most cost effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services over a 20-year planning period, focusing on the next 10 years.

This plan covers the infrastructure assets that provide the footpath network for the accessibility and mobility of pedestrians, including bicycles, prams and motorised carts.

## 1.2 Asset Description

These assets include:

The footpath network comprises:

- Concrete footpaths
- Paved footpaths
- Bitumen sealed footpaths

These infrastructure assets have significant value estimated at \$4,521,828.

## 1.3 Levels of Service

Our present funding levels are sufficient to continue to provide existing services at current levels in the medium term.

The main services consequences are:

- Maintained condition of the overall asset
- Safe network
- Ability to improve accessibility in line with the Disability Inclusion Action Plan

## 1.4 Future Demand

The main demands for new services are created by:

- Ageing population

These will be managed through a combination of managing existing assets and upgrading of existing

assets to meet demand and demand management. Demand management practices include non-asset solutions, insuring against risks and managing failures.

- Implementation of the Disability Inclusion Management Plan
- Responding to customer action requests in a timely manner

## 1.5 Lifecycle Management Plan

### What does it Cost?

The projected outlays necessary to provide the services covered by this Footpath Asset Management Plan (AM Plan) includes operations, maintenance, renewal and upgrade of existing assets over the 10-year planning period is \$950,000 or \$95,000 on average per year.

## 1.6 Financial Summary

### What we will do

Estimated available funding for this period is \$950,000 or \$95,000 on average per year as per the long term financial plan or budget forecast. This is 100% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long term financial plan can be provided. The emphasis of the Footpath Asset Management Plan is to communicate the consequences of adding to the network and the impact this will have on the service provided and risks, so that decision making is "informed".

Due to careful historical management of the footpath network, all areas of the planned operational, maintenance, renewal and capital are funded over the life of this plan. This is shown in the figure below.

### Projected Operating and Capital Expenditure

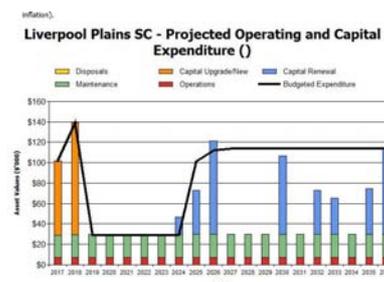


Figure Values are in current (real) dollars.

We plan to provide footpath services for the following:

- Operation, maintenance, renewal and upgrade of concrete, paved and bitumen sealed footpaths to meet service levels set by in annual budgets.
- Complete the Quirindi shared path loop in Russell Street and complete renewals as shown in Appendix B within the 10-year planning period.

### What we cannot do

We currently do **not** allocate enough funding to sustain the footpath network in condition 1 or 2, which would be a near perfect network with very little defects. Increasing the footpath network beyond the current planned expansion would also reduce the level of service from the current overall footpath network condition, unless any expansion is complimented by an increase in the maintenance and renewal budgets accordingly. Works and services that cannot be provided under present funding levels are:

- An increase in the overall condition of the footpath network
- Increase in the size of the asset, other than the completion of the link of shared path from Russell Street to Loder Street.

### Managing the Risks

Our present funding levels are sufficient to continue to manage risks in and associated with the footpath network over the next 20 years.

The main risk consequences are:

- Inability to fund maintenance and renewal works if the network is increased if there is no additional maintenance and renewal funding to accompany any future works
- In effective management of defect and renewal works

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

- Ensuring that all new construction projects impacts on the maintenance and renewal activities are funded in the long term
- That footpaths are inspected and defects are prioritised through the Liverpool Plains Shire Council Footpath Maintenance Management Plan

## 1.7 Asset Management Practices

Our systems to manage assets include:

- Authority
- Assetic
- Reflect

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 1 has been used to develop this footpath asset management plan.

## 1.8 Monitoring and Improvement Program

The next steps resulting from this asset management plan to improve asset management practices are:

- Monitor asset condition to ensure that current maintenance and renewal practices do not allow the overall footpath network condition to decline
- Improvements in the collection and management of footpath asset data through the implementation of a risk assessment process of defects, including regular inspections, assessment of defects, a systematic approach to the prioritisation of maintenance works and a comprehensive system of recording defects and their repairs to allow for improved maintenance and renewal works
- Assess new technologies and processes to ensure that Council has a best value for money process for construction, maintenance and renewal of footpath assets

## 2. INTRODUCTION

### 2.1 Background

The Community of Liverpool Plains Shire expectation is for the provision of a safe and accessible footpath network (including shared paths, cycleways and formed footpaths) of pedestrian surfaces that provide the opportunity for residents and visitors to make journeys on foot.

The footpath network is comprised of assets that are owned and managed by Liverpool Plains Shire Council as the Roads Authority. The footpath network maintenance and renewal program is fully funded by Liverpool Plains Shire Council, with Council applying to other entities for funding where available to extend the network when possible.

The management of Councils footpath assets requires the coordination of Council's technical and operational resources.

Councils Engineering Services team administer the asset management systems, determine the strategic outcomes based on community consultation, develop operational works programs and produce designs, specifications and standards. This team is also responsible to undertake maintenance, some augmentation works and coordinate any external contractors to undertake work that Council is unable to complete.

This Footpath Asset Management Plan communicates the actions required for the responsive management of assets (and services provided from assets), compliance with regulatory requirements, and funding needed to provide the required levels of service over a 20-year planning period.

The asset management plan is to be read with the following documents:

- Community Strategic Plan
- Asset Management Policy
- Long Term Financial Plan
- Management Plans (4 year Delivery Plan and Operational Plan)
- Community Engagement Strategy
- Workforce Management Plan

The infrastructure assets covered by this asset management plan are shown in Table 2.1. These assets are used to provide pedestrian and cyclist access throughout urban areas of the Shire.

**Table 2.1: Assets covered by this Plan**

Asset Category	Dimension (m <sup>2</sup> )	Replacement Value
Concrete footpath	33,609	\$3,960,588
Paved footpath	1,125	\$390,960
Bitumen sealed footpath	2948	\$170,280
<b>TOTAL</b>		<b>\$4,521,282</b>

### 2.2 Goals and Objectives of Asset Ownership

Our goal in managing footpaths assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of footpath asset management are:

- Taking a life cycle approach,
- Developing cost effective management strategies for the long term,
- Providing a defined level of service and monitoring performance,

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

Liverpool Plains Shire Council has identified that all aspects of its business must have a strong focus on financial, economic, social and environmental sustainability. This will be achieved through ensuring that our footpath assets are well planned and maintained, with maintenance being integrated into Councils work programming in a well planned and timely manner, working in partnerships to explore long term solutions for the construction, renewal and maintenance of footpath assets, and develop cases for further funding.

Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 2015<sup>1</sup>
- ISO 55000<sup>2</sup>

## **2.3 Core and Advanced Asset Management**

This Footpath Asset Management Plan is prepared as a 'core' asset management plan over a 20 year planning period in accordance with the International Infrastructure Management Manual<sup>3</sup>. Core asset management is a 'top down' approach where analysis is applied at the system or network level. An 'advanced' asset management approach uses a 'bottom up' approach for gathering detailed asset information for individual assets.

## **3. LEVELS OF SERVICE**

### **3.1 Customer Research and Expectations**

This 'core' asset management plan is prepared to facilitate consultation prior to adoption by the Liverpool Plains Shire Council. Future revisions of the Footpath Asset Management Plan will incorporate community consultation on service levels and costs of providing the service. This will assist the Liverpool Plains Shire Council and stakeholders in matching the level of service required, service risks and consequences with the community's ability and willingness to pay for the service.

### **3.2 Strategic and Corporate Goals**

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

Our vision is:

That the Liverpool Plains Shire area achieves higher levels of growth and generates improved quality of life through expanded opportunities for economic and social development being realised within an environmentally and financially sustainable framework.

Our mission is:

To achieve the vision through a proactive community focus, delivering best value and practice services that are recognised by the community for their quality and positive impact on development.

Relevant goals and objectives and how these are addressed in this asset management plan are:

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<sup>1</sup> Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2 | 13

<sup>2</sup> ISO 55000 Overview, principles and terminology

<sup>3</sup> IPWEA, 2015, IIMM.

**Table 3.2: Goals and how these are addressed in this Plan**

Key Performance Measures	Objective	How Goal and Objectives are addressed in AM Plan
Customer satisfaction	Reduce customer complaints about the condition of the network	Through the implementation of a risk management maintenance system that will ensure that the highest priority defects are rectified in a timely manner
Maintain the current overall condition of the footpath network	Ensure that the footpath network condition does not decline	Through the implementation of a risk management maintenance system that will ensure that the highest priority defects are rectified in a timely manner. Ensure that any extension of the network that is not identified in this plan is accompanied by sustainable resources to ensure that the entire network can be maintained and renewed to allow for the continuation of maintaining the current network condition.

The Liverpool Plains Shire Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AM Plan. Management of infrastructure risks is covered in Section 6.

### 3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. These include:

**Table 3.3: Legislative Requirements**

Legislation	Requirement
Local Government Act 1993	Sets out the role, responsibilities and powers of local government including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery
Workplace Health and safety Act 2011	Protecting workers and other persons against harm to their health, safety and welfare through the elimination or minimisation of risks arising from work
Disability Discrimination Act 1992	To eliminate as far as possible, discrimination against persons on the grounds of disability in the areas of the provision of goods, facilities, services and land
Australian Accounting Standard AASB116	Reporting on Asset condition and consumption to Councillors, management and the community
Civil Liability Act 2002 and Civil Liability Amendment (Personal Responsibility) Act 2002	Protects the Council from civil action by requiring the courts to take into account the financial resources, the general responsibilities of the authority and the compliance with general practices and applicable standards

### 3.4 Customer Levels of Service

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

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

Customer levels of service measures used in the asset management plan are:

**Quality** Smoothness of the footpath asset

**Function** Provide pedestrian and bicycle access throughout the urban areas of the Shire

**Capacity/Use** Ensure that footpath assets are provided to ensure access is equitable across the Shire

The current and expected customer service levels are detailed in Tables 3.4 and 3.5. Table 3.4 shows the expected levels of service based on resource levels in the current long-term financial plan.

**Organisational measures** are measures of fact related to the service delivery outcome i.e. number of occasions when service is not available, condition %'s of Very Poor, Poor/Average/Good, Very good.

These Organisational measures provide a balance in comparison to the customer perception that may be more subjective.

Table 3.4: Customer Level of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years based on the current budget.
<b>Service Objective:</b> Provide pedestrian access through busy and important routes through the urban areas of the Shire				
<b>Quality</b>	Ensure that the overall condition of the network is maintained	IPWEA footpath condition assessment	Footpaths are swept by hand on a regular basis	Footpaths are mechanically swept regularly
	<b>Confidence levels</b>		Medium	High
<b>Function</b>	Provide a footpath network with pedestrian access that meets the needs of the community	Customer complaints	Reduction in Customer complaints	10% reduction in complaints related to footpath defects
		Design and construct footpaths and pram ramps to Council standards	Continue to improve accessibility and mobility opportunities to the community in line with budget constraints	Recommendations from the Disability Inclusion Action Plan 2017 implemented
<b>Safety</b>	Provide safe a safe footpath network for prams, wheelchairs and motorised carts that is all weather accessible and free from hazards	Reduced insurance claims due to footpath hazards	0 claims in 2015-2016 year	2 claims over 10 year period
		Respond to customer action requests in a timely manner	Customer action request system implemented	Improvements to customer action request system
	<b>Confidence levels</b>		High	High
<b>Quality</b>	Ensure that footpaths are constructed using Council standards	Councils standards are implemented across all footpath construction works	100% implemented	100% implemented
	Ensure that footpaths are maintained through the implementation of a risk management maintenance system	Implement risk management maintenance system for footpaths	Footpaths have been inspected and defects assessed and prioritised using a paper system	Implementation of software to ensure that footpaths are assessed for risks and maintained as required by the proposed Footpath Risk Management Maintenance Plan
	<b>Confidence levels</b>		High	medium

### 3.5 Technical Levels of Service

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

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

- Operations – the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc).
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs),
- Renewal – the activities that return the service capability of an asset up to that which it had originally (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),
- Upgrade/New – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.<sup>4</sup>

Table 3.5 shows the technical levels of service expected to be provided under this AM Plan. The ‘Desired’ position in the table documents the position being recommended in this AM Plan.

**Table 3.5: Technical Levels of Service**

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance *	Desired for Optimum Lifecycle Cost **
<b>TECHNICAL LEVELS OF SERVICE</b>				
<b>Operations</b>				
Asset management	Asset attributes are correct	Footpath asset attributes are recorded accurately	Historical footpath data is inaccurate	Improvements in footpath data collections and recognition of poor performing footpaths through regular inspections
		<b>Budget</b>	\$7,000	\$7,000
<b>Maintenance</b>				
Inspections	Footpaths are inspected for condition and defects annually	Data regarding footpaths condition and defects is updated annually	Footpath inspections using paper based system implemented in 2016-2017	Mobile data collection using tailored software to reduce time for collection and management of data
Assessment of defects	Defects are assessed using a consistent system including intervention levels	Identified defects are assessed for risk so they can be prioritised	Not yet implemented	System implemented for the assessment of defects on the footpath network
Prioritisation of defect repairs work	Defects are prioritised using a system that	Systematic prioritisation of defect repair	Not yet implemented	System implemented for the prioritisation of defects on the footpath network

<sup>4</sup> IPWEA, 2015, IIMM, p 2 | 28.

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance *	Desired for Optimum Lifecycle Cost **
	ensures that the greatest risks are repaired within Councils budget constraints	works		
Timely repair of prioritised defects	Implementation of response times for the repair of defects	Defects are repaired within response times	Not yet implemented	Response times implemented for defect repairs and monitored for compliance
		<b>Budget</b>	\$22,000	\$22,000
<b>Renewal</b>				
Works are consistent with Council standards	Council standards are implemented	Renewal works are consistent with Council standards	100% implemented	100% implemented
		<b>Budget</b>	\$72,000	\$77,000 per year
<b>Upgrade/New</b>				
Works are consistent with Council standards	Council standards are implemented	Renewal works are consistent with Council standards	100% implemented	100% implemented
		<b>Budget</b>	\$73,000	\$110,000 in 2018

## 4. FUTURE DEMAND

### 4.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc. Liverpool Plains Shire Council has an aging population, and it is proposed that this will impact on the service delivery requirements of the footpath network in the future.

### 4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in Table 4.3.

### 4.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 4.3.

**Table 4.3: Demand Drivers, Projections and Impact on Services**

Demand drivers	Present position	Projection	Impact on services
Aging population	Increasing aging population consistent with nationwide trends	Percentage of people over the age of 65 expected to increase	Requirement for improved accessibility and mobility offered by footpath network
Community expectation	Increasing community expectation for improved services	Continued pressure from community for improved services	Nil

#### 4.4 Demand Management Plan

Demand for improved services will be managed through a combination of managing existing assets and upgrading of existing assets during programmed renewals to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 4.4. Further opportunities will be developed in future revisions of this asset management plan.

**Table 4.4: Demand Management Plan Summary**

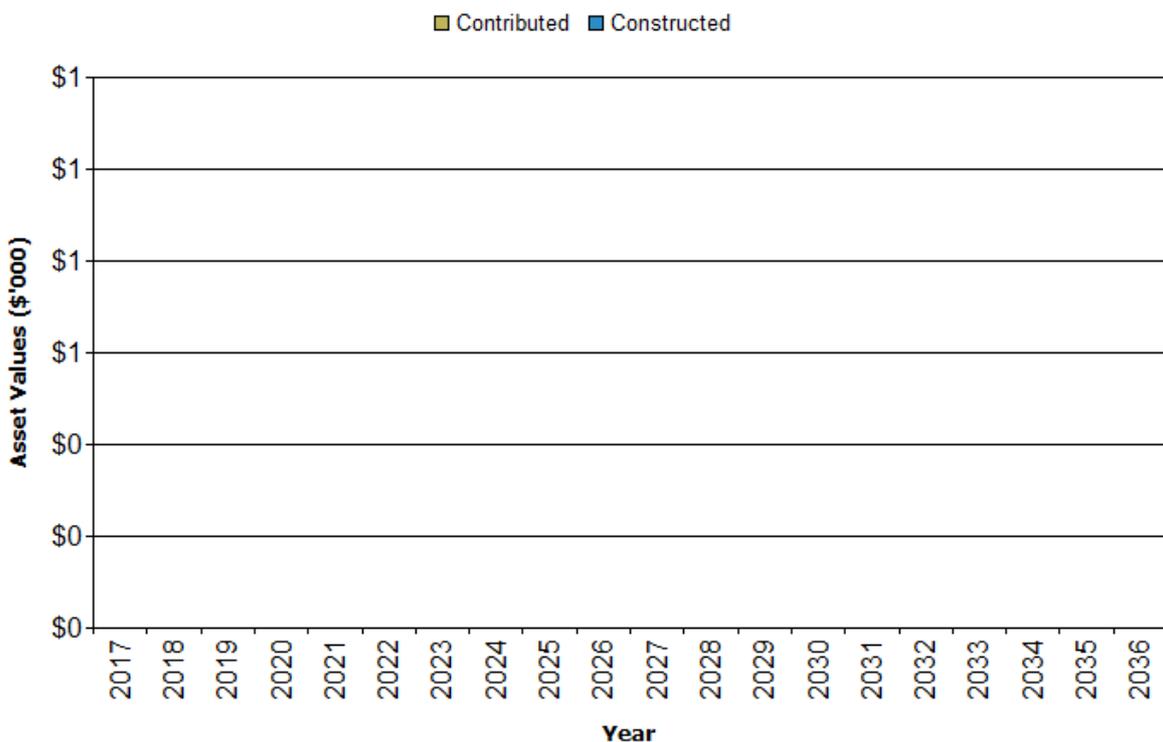
Demand Driver	Impact on Services	Demand Management Plan
Aging populations	Require improved footpath network accessibility and mobility	Improve footpath assets during renewal

#### 4.5 Asset Programs to meet Demand

The new assets required to meet demand can be acquired, donated or constructed. Additional assets are discussed in Section 5.5. There are no assets to be constructed during the plans life to meet demand requirements.

**Figure 1: Upgrade and New Assets to meet Demand – (Cumulative)**

### Liverpool Plains SC - STRATEGY - Upgrade & New Assets to meet Demand



## 5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the Liverpool Plains Shire Council plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while managing life cycle costs.

## 5.1 Background Data

### 5.1.1 Physical parameters

The assets covered by this asset management plan are shown in Table 2.1.

Council has a paved footpath network in central business districts of larger towns, with the majority of the rest of the network being a concrete footpath asset.

The age profile of the assets included in this AM Plan are shown in Figure 2.

Figure 2: Asset Age Profile

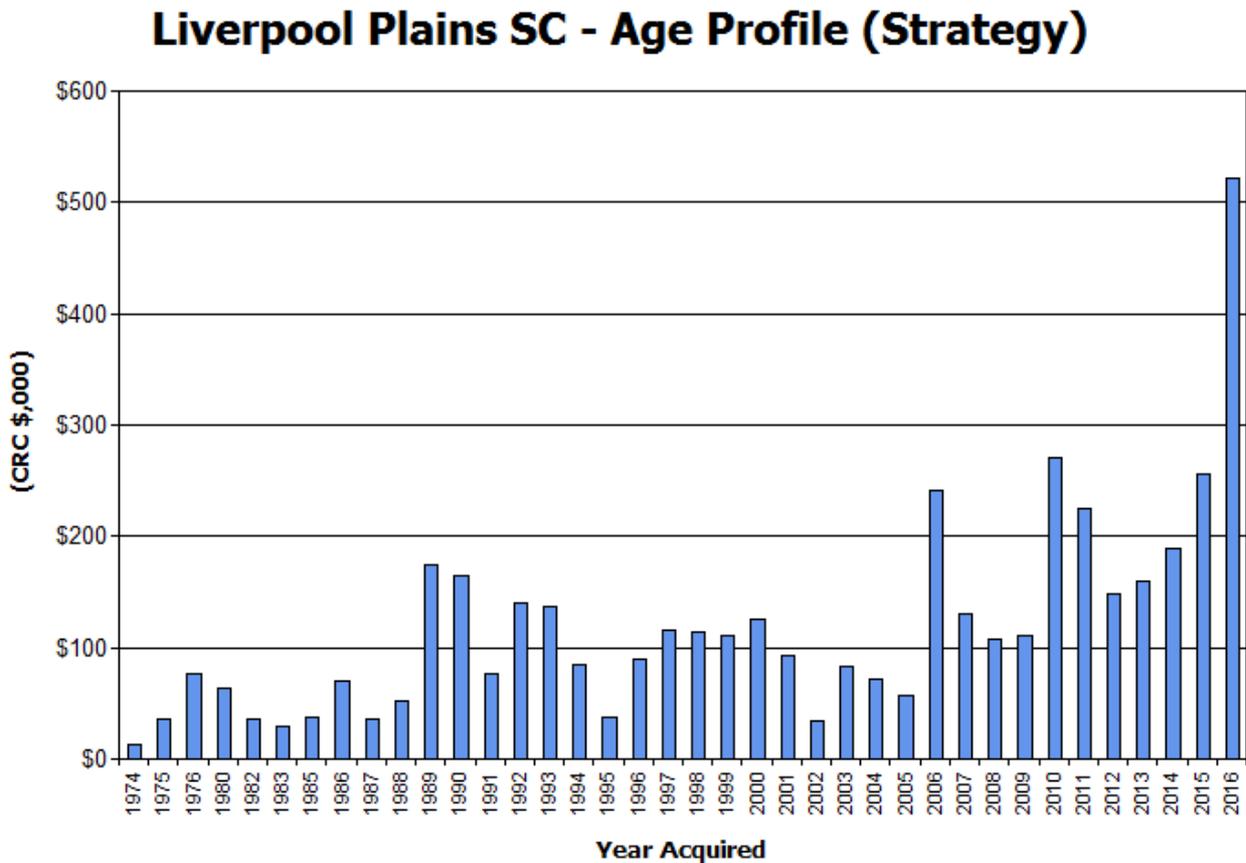


Figure Values are in current (real) dollars.

Council’s databases determine that the footpath network commenced construction in 1974. Since this time, the network has been extended to meet community needs.

### 5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

**Table 5.1.2: Known Service Performance Deficiencies**

Location	Service Deficiency
<b>QUIRINDI</b>	
Link in shared pathway around Quirindi not yet complete	Shared path ends at underpass on Russell Street and on Loder Street
Henry St between Rose Street and Milner Parade	2 kerb extensions and pedestrian refuge
Loder Street between Lennox Street and Bank Street	2 kerb extensions and ramps 100m x 1.5m wide concrete path extension from shop to bus shelter along western side of Loder Street
Nowland Street between Collerene Road and Hill Street	2 kerb extensions and ramps Pedestrian refuge 50m x 1.5m wide concrete footpath construction along Nowland Street
Collerene Road between Nowland Street and Munro Street	6 kerb ramps 100m x 1.5m wide concrete footpath From Munro Street to children's crossing
Station Street between Abbey Street and Dalley Street	2 kerb extensions
Staion Street at Abbott Street intersection	2 kerb extensions
Campbell Street	40m x 1.5m wide concrete footpath linking Jacob and Josephs Creek from the underpass to the footpath in Henry Street
Various locations	Pram ramps
<b>WERRIS CREEK</b>	
Various locations	Pram ramps
Single Street between Poole Street and Coronation Avenue	2 kerb extensions and ramps
Station Street between Coronation Street and Anzac parade	1 kerb extension and ramp
<b>WILLOW TREE</b>	
Eastern side of New England Highway opposite the tourist information centre	3m x 1.5m concrete footpath linking existing footpath
New England Highway opposite the Willow tree Inn and shop	2 kerb extensions and ramps
Various locations	Pram ramps
<b>WALLABADAH</b>	
Martyn Street between the school and the New England Highway	170m x 1.5m wide concrete footpath
New England Highway between Maria Street and the entrance to First Fleet Memorial Garden	100m x 1.5m wide concrete footpath

The above service deficiencies were identified from Liverpool Plains Shire Council Pedestrian Access management Plan 2015.

### 5.1.3 Asset condition

Condition is monitored Council has completed a four year condition assessment of the footpath network in 2016.

The condition profile of our assets is shown in Figure 3.

Fig 3: Asset Condition Profile

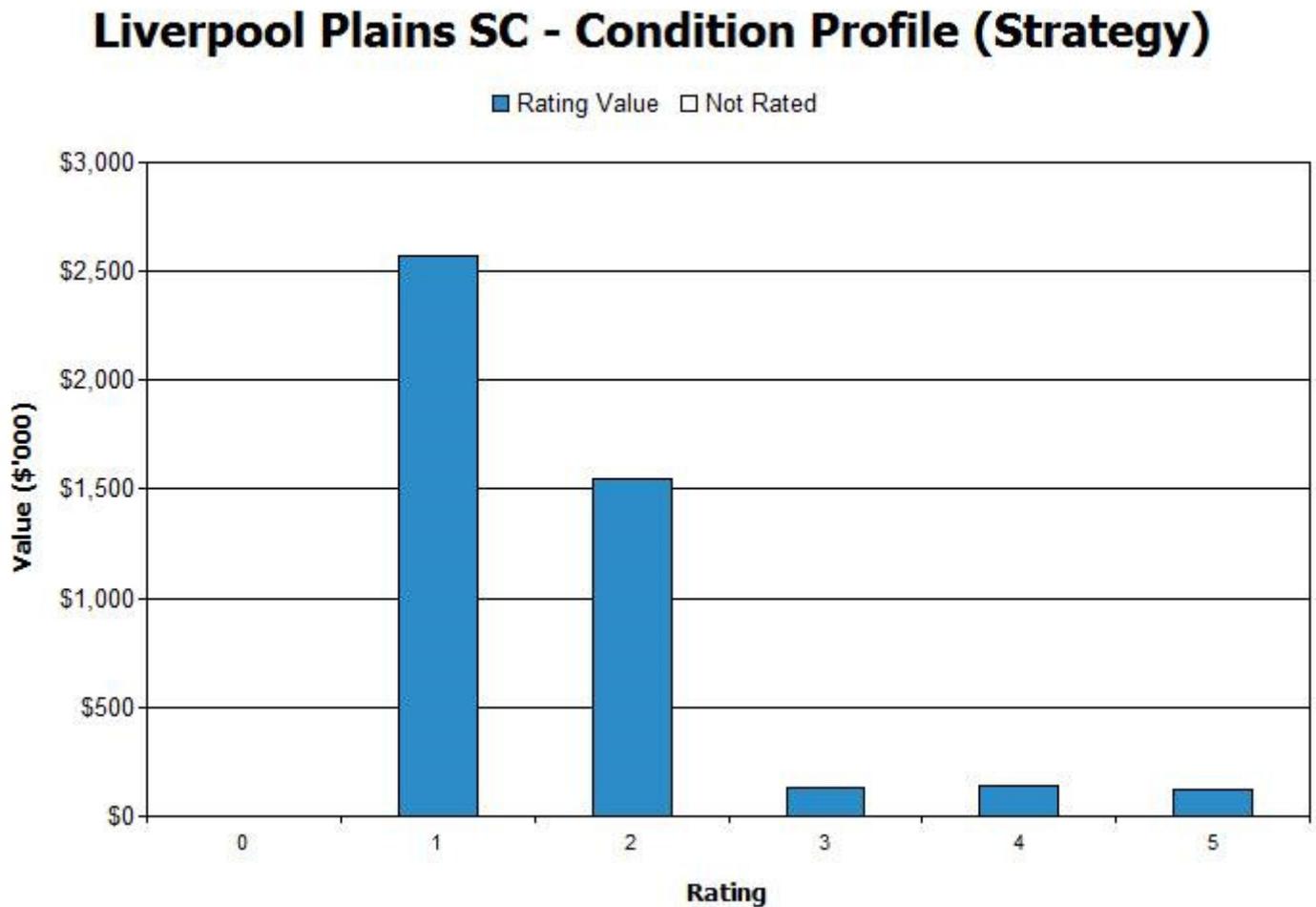


Figure Values are in current (real) dollars.

The conditions surveys have allowed Council to determine that its footpath network is generally in very good or good condition. Condition is measured using a 1 – 5 grading system<sup>5</sup> as detailed in Table 5.1.3.

<sup>5</sup> IPWEA, 2015, IIMM, Sec 2.5.4, p 2 | 80.

**Table 5.1.3: Simple Condition Grading Model**

Condition Grading	Description of Condition
1	<b>Very Good:</b> only planned maintenance required
2	<b>Good:</b> minor maintenance required plus planned maintenance
3	<b>Fair:</b> significant maintenance required
4	<b>Poor:</b> significant renewal/rehabilitation required
5	<b>Very Poor:</b> physically unsound and/or beyond rehabilitation

## 5.2 Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, e.g. cleaning and sweeping.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again, e.g. trip hazard grinding, slab replacement of high risk defects.

Maintenance includes 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.

Maintenance expenditure is shown in Table 5.2.1.

**Table 5.2.1: Maintenance Expenditure Trends**

Year	Maintenance Budget \$
2015-2016	\$29,000
2016-2017	\$29,000
2017-2018	\$29,000

Maintenance expenditure levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance expenditure levels are such that they will result in a lesser level of service, the service consequences and service risks have been identified and highlighted in this AM Plan and service risks considered in the Footpath Risk Management Maintenance Plan.

### Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Figure 4. Note that all costs are shown in current 2017 dollar values (i.e. real values).

**Figure 4: Projected Operations and Maintenance Expenditure**

## Liverpool Plains SC - Projected Operations & Maintenance Expenditure (Strategy)

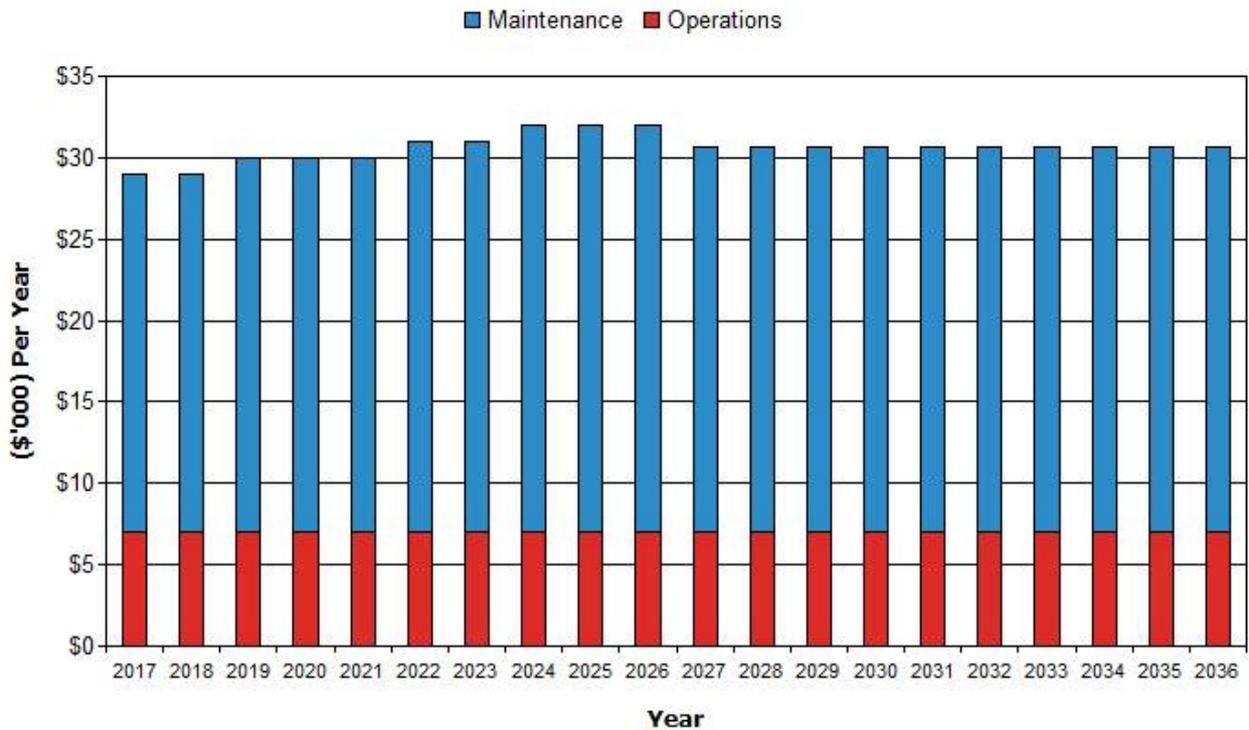


Figure Values are in current (real) dollars.

In order to maintain the footpath network at its current overall condition, maintenance costs will increase over the next 9 years, until renewals become part of the process of managing the network. Council's current long term financial plan allows for these operational and maintenance requirements to be fully funded from the operating budget over this period. This is further discussed in Section 7.

### 5.3 Renewal/Replacement Plan

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

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 1 has been used for this footpath asset management plan.

### 5.3.1 Renewal ranking criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a footpath that can no longer be maintained safely), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (the footpath surface has become deformed due to tree roots growing under the path).<sup>6</sup>

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Table 5.3.1.

**Table 5.3.1: Renewal and Replacement Priority Ranking Criteria**

Criteria	Weighting
Renewal > 50% path effected by defects	75%
Renewal > 30% of path effected by defects and receiving complaints regarding accessibility	25%
Total	100%

### 5.3.2 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures are forecast to increase over time if the footpath asset stock increases. The expenditure is required is shown in Fig 5. Note that all amounts are shown in current (real) dollars.

The projected capital renewal and replacement program is shown in Appendix B.

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<sup>6</sup> IPWEA, 2015, IIMM, Sec 3.4.4, p 3 | 91.

Fig 5: Projected Capital Renewal and Replacement Expenditure

## Liverpool Plains SC - Projected Capital Renewal Expenditure (Strategy)

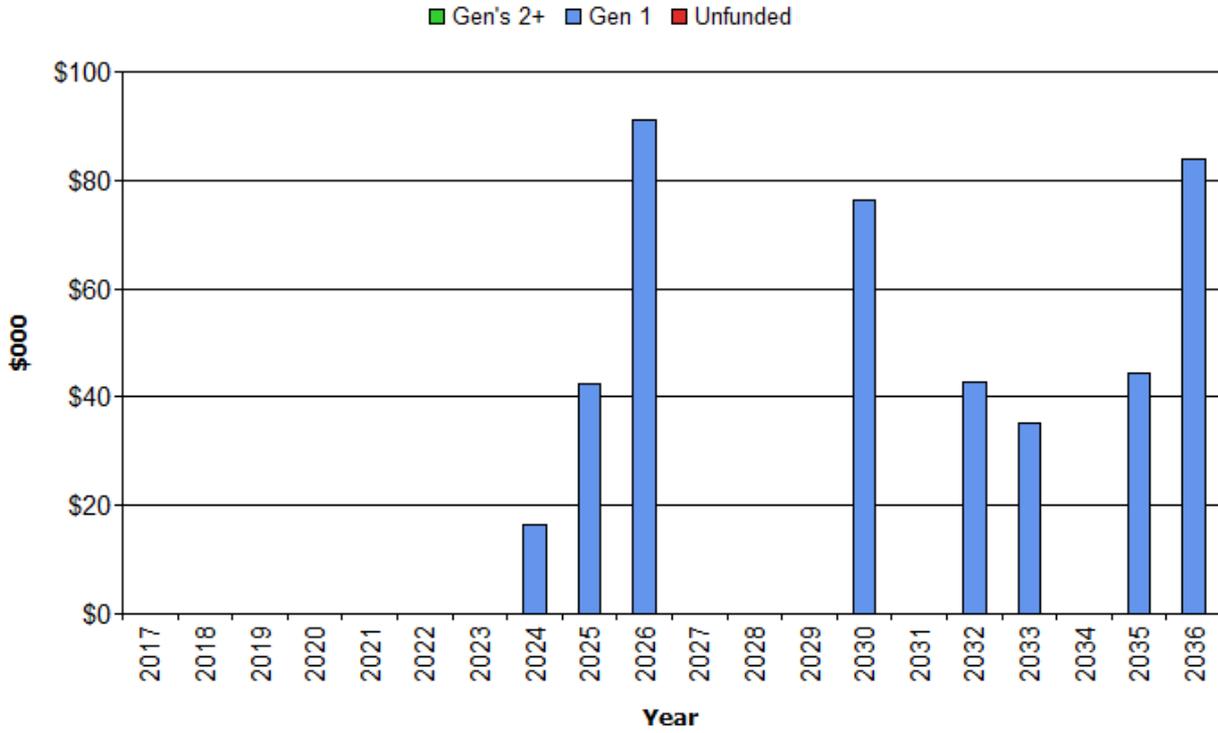


Figure Values are in current (real) dollars.

Due to the footpath network being within its useful life, until 2024, Council will commence the renewal program in 2025, combining in the 2024 and 2025 projects. From this time onwards, Council is committed to funding the renewal program, with the long term goal of ensuring that the asset is managed sustainably.

Renewals and replacement expenditure in the capital works program will be accommodated in the long term financial plan. This is further discussed in Section 7.

### 5.4 Creation/Acquisition/Upgrade Plan

New works are those that create a new asset that did not previously exist, or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost. These additional assets are considered in Section 4.4.

#### 5.4.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed below.

Table 5.4.1: New Assets Priority Ranking Criteria

Criteria	Weighting
Completion of the Quirindi Shared path link on Russell Street Quirindi	100%
Total	100%

**5.4.2 Summary of future upgrade/new assets expenditure**

Projected upgrade/new asset expenditures are summarised in Fig 6. The projected upgrade/new capital works program is shown in Appendix C. All amounts are shown in real values.

*Fig 6: Projected Capital Upgrade/New Asset Expenditure*

**Liverpool Plains SC - Projected Capital Upgrade/New Expenditure (Strategy)**

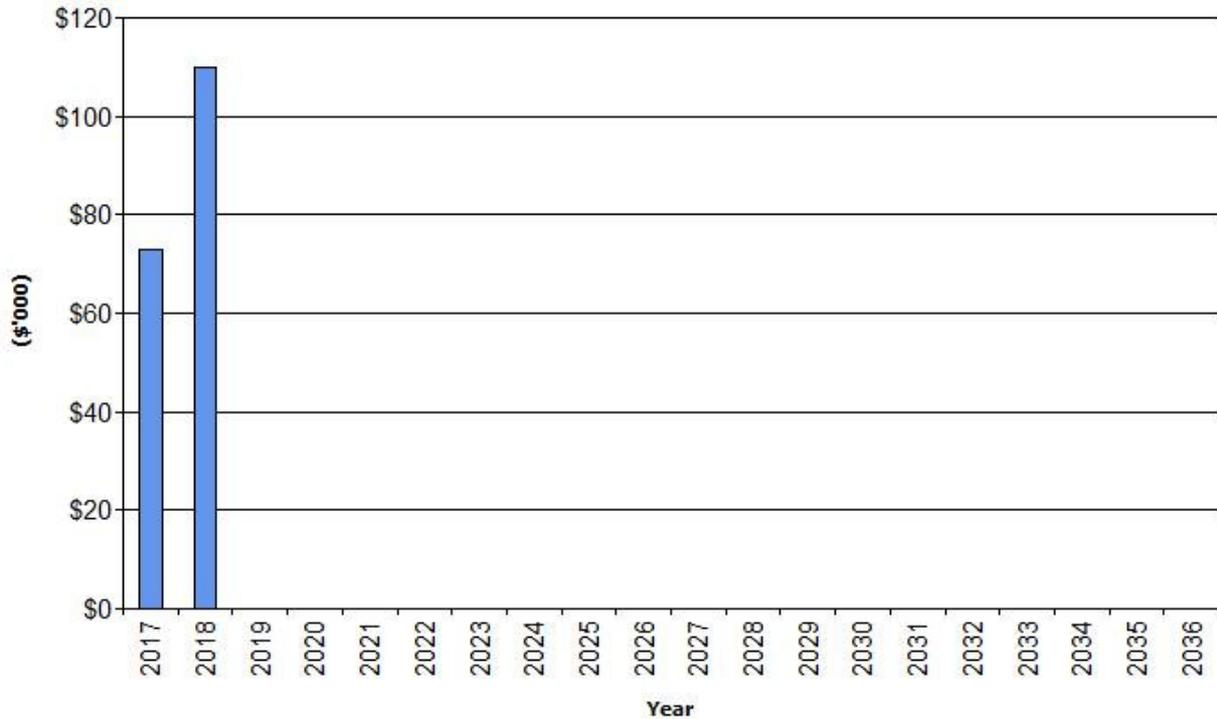


Figure Values are in current (real) dollars.

Expenditure on new assets and services in the capital works program will be accommodated in the long term financial plan but only to the extent of the available funds

Council has considered the impact of the current budgeted footpath network expansion works and has identified that the current long term financial plan budget is able to cover the maintenance and renewal costs of these assets over the next 20 years.

**5.4.3 Summary of asset expenditure requirements**

The financial projections from this asset plan are shown in Fig 7 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.

The bars in the graphs represent the anticipated budget needs required to achieve lowest lifecycle costs, the budget line indicates what is currently available. The gap between these informs the discussion on achieving the balance between services, costs and risk to achieve the best value outcome.

Fig 7: Projected Operating and Capital Expenditure

## Liverpool Plains SC - Projected Operating and Capital Expenditure ( )

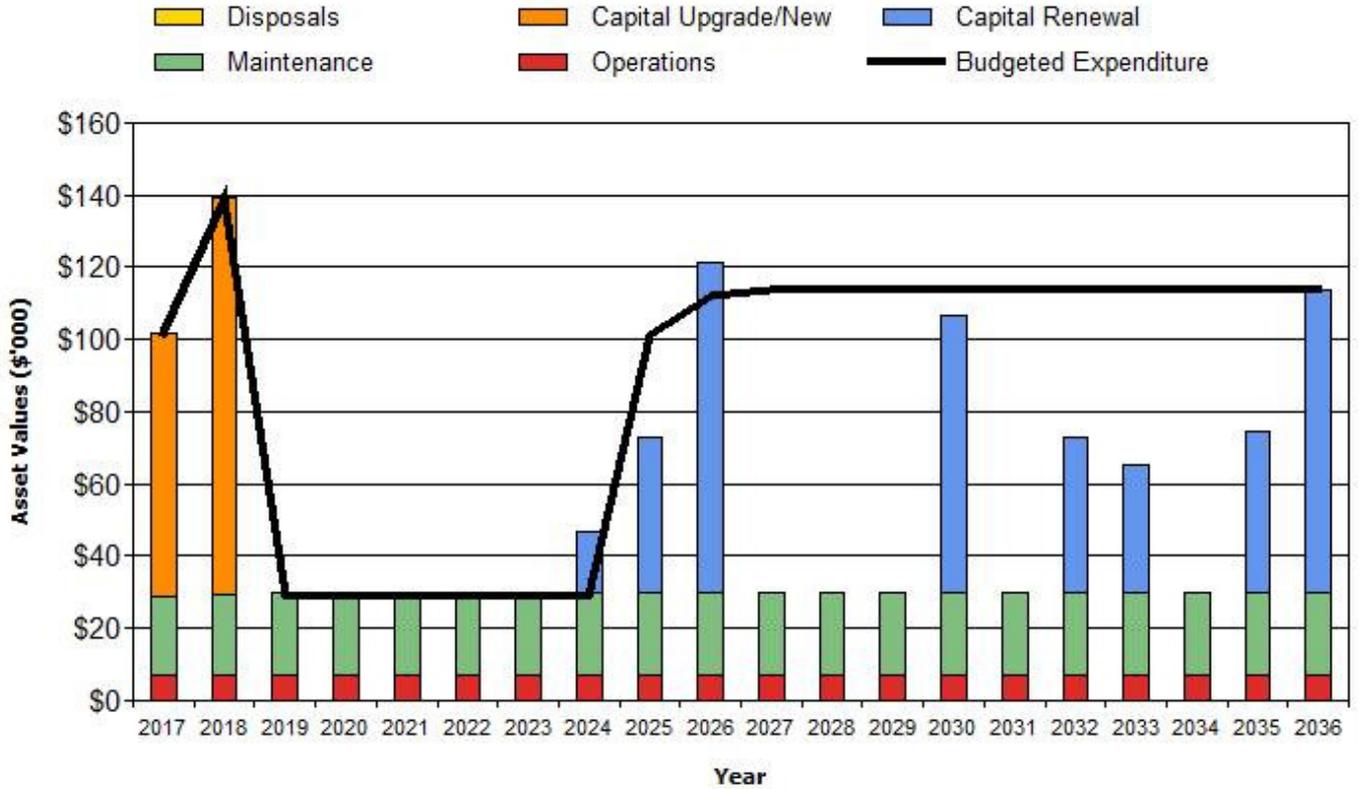


Figure Values are in current (real) dollars.

Council’s current long term financial model is adequate for the capital improvements, renewals and maintenance and operational costs associated with the planned managed of the footpath network. After the 10 year period to 2026, the depreciation amount for the renewal of assets has been inputted as the required funding. It is understood that although the amount of \$90,000 may not be required each year, Council should understand that past 2026, renewals will continue to ramp up as time goes by. In the next few footpath asset management plans, Council will need to consider whether it would prefer to fund renewals in a manner that follows the peaks and troughs of the historical and condition based renewal requirements, or fund renewals in a consistent manner, smoothing out the costs associated with renewing this asset.

### 5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.5, together with estimated annual savings from not having to fund operations and maintenance of the assets. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Any costs or revenue gained from asset disposals is accommodated in the long term financial plan.

Council currently has no plans to dispose of any footpath assets throughout the Shire.

## 6. RISK MANAGEMENT PLAN

The purpose of infrastructure risk management is to document the results and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2009 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2009 as: ‘coordinated activities to direct and control with regard to risk’<sup>7</sup>.

An assessment of risks<sup>8</sup> associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a ‘financial shock’. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

### 6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Similarly, critical failure modes are those which have the highest consequences.

Council has not identified any critical footpath assets within its network. Council’s footpath assets have been identified as not being able to cause Council to be unable to conduct its business activities.

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

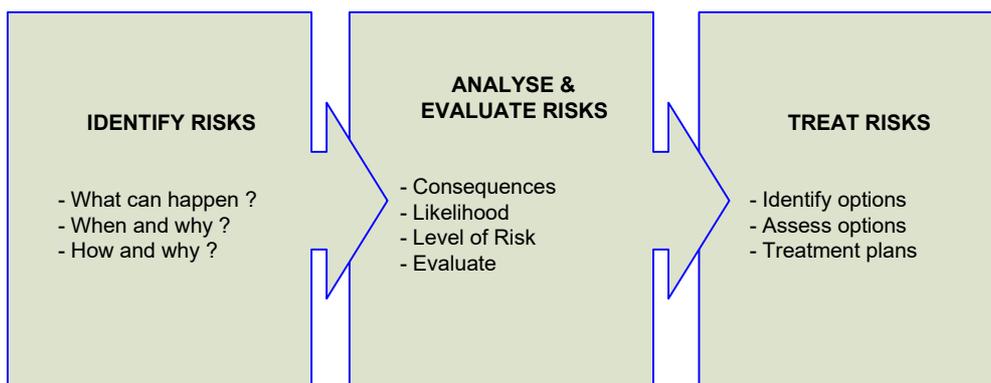
### 6.2 Risk Assessment

The risk management process used in this project is shown in Figure 6.2 below.

It is an analysis and problem solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of the ISO risk assessment standard ISO 31000:2009.

**Fig 6.2 Risk Management Process – Abridged**



<sup>7</sup> ISO 31000:2009, p 2

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

An assessment of risks<sup>9</sup> associated with service delivery from infrastructure assets has identified the critical risks that will result in significant loss, 'financial shock' or a reduction in service.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment cost after the selected treatment plan is implemented is shown in Table 6.2. These risks and costs are reported to management and Liverpool Plains Shire Council.

**Table 6.2: Critical Risks and Treatment Plans**

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
No footpath assets have been assessed as being critical to Councils operations					

Note \* The residual risk is the risk remaining after the selected risk treatment plan is operational.

### 6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to our customers and the services we provide. To adapt to changing conditions and grow over time we need to understand our capacity to respond to possible disruptions and be positioned to absorb disturbance and act effectively in a crisis to ensure continuity of service.

Resilience is built on aspects such as response and recovery planning, financial capacity and crisis leadership.

Our current measure of resilience is shown in Table 6.4 which includes the type of threats and hazards, resilience assessment and identified improvements and/or interventions.

**Table 6.4: Resilience**

Threat / Hazard	Resilience LMH	Improvements / Interventions
No footpath assets have been assessed as being critical to Councils operations		

### 6.4 Service and Risk Trade-Offs

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

#### 6.4.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Implementation of the Footpath Risk Management Maintenance Plan

#### 6.4.2 Service trade-off

Operations and maintenance activities and capital projects that cannot be undertaken will maintain or create service consequences for users. These include:

- Unplanned increases in the footpath network

**6.4.3 Risk trade-off**

The operations and maintenance activities and capital projects that cannot be undertaken may maintain or create risk consequences. These include:

- Decline in the overall condition of the footpath network

These actions and expenditures are considered in the projected expenditures, and where developed are included in the Risk Management Plan.

**7. FINANCIAL SUMMARY**

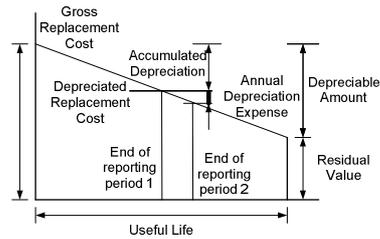
This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset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

**7.1 Financial Statements and Projections**

**7.1.1 Asset valuations**

The best available estimate of the value of assets included in this Asset Management Plan are shown below. Assets are valued at fair value to replace service capacity.

Gross Replacement Cost	\$4,522,000
Depreciable Amount	\$4,522,000
Depreciated Replacement Cost <sup>10</sup>	\$3,228,000
Annual Average Asset Consumption	\$90,000



**7.1.1 Sustainability of service delivery**

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

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

**Asset Renewal Funding Ratio**

Asset Renewal Funding Ratio<sup>11</sup> 100%

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have 100% of the funds required for the optimal renewal and replacement of assets.

**Medium term – 10 year financial planning period**

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

<sup>10</sup> Also reported as Written Down Value, Carrying or Net Book Value.

<sup>11</sup> AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

These projected expenditures may be compared to budgeted expenditures in the 10 year period to identify any funding shortfall. In a core asset management plan, a gap is generally due to increasing asset renewals for ageing assets. Fortunately Liverpool Plains Shire Council has identified that it is able to fund the maintenance and renewal of footpaths sustainably over the next 10 years.

Due to the network construction commencing in the early 1970s, renewal requirements will not commence until late in the current 10 year long term financial planning period. The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is \$155,000. Once this current 10 year period has been completed, the average renewal cost for the network will be \$90,000.

Estimated (budget) operations, maintenance and capital renewal funding is \$29,000 over the next 9 years and then rises due to renewal requirements to \$136,000 in 2026 and then again to \$147,000 in 2027. At the end of this current ten year plan, it is estimated that the required average funding amount to maintain and renew the network to maintain it within the current overall condition level is \$151,000 on average per year over the next 10 year period. Councils long term financial plan indicates that this is a sustainable position for Council. This includes the smoothing out of the costs associated with renewals in the long term. Council may decide in the next few Footpath Asset management Planning processes to only fund renewals as they become essential, with an understanding that some years will require large funding commitments, and other little. This excludes upgrade/new assets.

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

### 7.1.2 Projected expenditures for long term financial plan

Table 7.1.2 shows the projected expenditures for the 10 year long term financial plan.

Expenditure projections are in 2017 real values.

**Table 7.1.2: Projected Expenditures for Long Term Financial Plan (\$000)**

Year	Operations (\$000)	Maintenance (\$000)	Projected Capital Renewal (\$000)	Capital Upgrade/ New (\$000)	Disposals (\$000)
2017	7	22	0	73	0
2018	7	22	0	110	0
2019	7	23	0	0	0
2020	7	23	0	0	0
2021	7	23	0	0	0
2022	7	24	0	0	0
2023	7	24	0	0	0
2024	7	25	16	0	0
2025	7	25	43	0	0
2026	7	25	91	0	0

## 7.2 Funding Strategy

Funding for assets is provided from the budget and long term financial plan. Currently Councils long term financial plan is able to meet the funding requirements of the operational, maintenance, renewal and planned capital costs of the network.

## 7.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added.

Additional assets will generally add to the operations and maintenance needs in the longer term, as well as the need for future renewal. Additional assets will also add to future depreciation forecasts. The capital works included in this

plan have been used in the calculation of the operations, maintenance and renewal requirements for the network over the useful life of the asset.

## 7.4 Key Assumptions Made in Financial Forecasts

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

Key assumptions made in this asset management plan are:

- That all capital works programmed for the network are accounted for in this Footpath Asset management Plan. Any additional extension to the network will increase the operational, maintenance and renewal requirements and the long term financial implications will need to be considered, along with how any of these additional requirements are funded.
- That this plan reflects the renewal program that smooths out renewals based on the depreciation amount of \$90,000 after 2026. This ensures that Council is aware of the need to set aside this amount of money each year in order to meet renewal amounts, but Council may opt to follow the renewal program based on condition and age, which would then allow for some large renewal expenditure years and some where there is little renewal to be completed. This renewal challenge is to be considered in the next few Footpath Management Plan reviews in line with Council long term financial plan and community expectations.

## 7.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale<sup>12</sup> in accordance with Table 7.5.

**Table 7.5: Data Confidence Grading System**

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
B Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate $\pm 10\%$
C Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated $\pm 25\%$
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy $\pm 40\%$
E Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is considered to be B – reliable.

<sup>12</sup> IPWEA, 2015, IIMM, Table 2.4.6, p 2 | 71.

## 8. PLAN IMPROVEMENT AND MONITORING

### 8.1 Status of Asset Management Practices<sup>13</sup>

#### 8.1.1 Accounting and financial data sources

Council currently utilises Civica Authority to manage its finances. This system has been under review during the 2016-2017 financial year.

#### 8.1.2 Asset management data sources

Assetic

Authority

Asset inspection sheets

Councils works as executed plan drawing

## 8.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 8.1.

*Table 8.1: Improvement Plan*

Task No	Task	Responsibility	Resources Required	Timeline
	Implement Footpath Risk Management Maintenance Plan	Engineering Services Manager	Asset Inspection Officer/ Works Engineer Tablet computer and reflect	July 2019
2	Review all footpath asset data to ensure integrity	Asset Engineer	Asset Engineer Computer and Assetic	July 2020

## 8.3 Monitoring and Review Procedures

This footpath asset management plan will be reviewed during delivery plan budget planning processes and amended to show any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AM Plan will be updated every four years to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the long term financial plan.

The AM Plan has a life of 4 years and is due for complete revision and updating within 4 years of each Council election.

## 8.4 Performance Measures

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

<sup>13</sup> ISO 55000 Refers to this the Asset Management System

- The degree to which the required projected expenditures identified in this asset management plan are incorporated into the long term financial plan,
- The degree to which 1-5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the asset management plan,
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Strategic Plan and associated plans,
- The Asset Renewal Funding Ratio achieving the target of 1.0.

## 9. REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, [www.ipwea.org/IIMM](http://www.ipwea.org/IIMM)
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, [www.ipwea.org/namsplus](http://www.ipwea.org/namsplus).
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, [www.ipwea.org/AIFMM](http://www.ipwea.org/AIFMM).
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, [www.ipwea.org/IIMM](http://www.ipwea.org/IIMM)
- IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney
- Liverpool Plains Shire Council Community Strategic Plan 2016-2017
- Liverpool Plains Shire Council Delivery Plan 2016-2017
- Liverpool Plains Shire Council Operational Plan 2016-2017
- Liverpool Plains Shire Council Long term Financial Plan 2016-2017
- Liverpool Plains Shire Council Pedestrian Access Management Plan 2015
- Liverpool Plains Shire Council Bike Plan 2015

## 10. APPENDICES

Appendix A Projected 10 year Capital Renewal and Replacement Works Program

Appendix B Projected 10 year Capital Upgrade/New Works Program

Appendix C LTFP Budgeted Expenditures Accommodated in AM Plan

## Appendix A Projected 10-year Capital Renewal and Replacement Works Program

Liverpool Plains SC - Report 6 - Appendix B 10 year Renewal & Replacement Program								
Asset ID	Sub	Asset Name	From	To	Rem	Planned	Renewal	Useful
	Category				Life	Renewal	Cost	Life
					(Years)	Year	(\$)	(Years)
5	FOOTPATHS	CHURCH AVE	Thomas St	St Vinnies	7	2024	\$16,416	50
<b>Subtotal</b>							<b>\$16,416</b>	
52	FOOTPATHS	SINGLE ST	Coronation Ave	Poole St	8	2025	\$42,552	50
<b>Subtotal</b>							<b>\$42,552</b>	
110	FOOTPATHS	DARBY RD	School	Shops	9	2026	\$91,152	50
<b>Subtotal</b>							<b>\$91,152</b>	
<b>Program Total</b>							<b>\$150,120</b>	

## Appendix B Projected Upgrade/Exp/New 10-year Capital Works Program

Liverpool Plains SC - Appendix B Projected Upgrade/Exp/New 10 year Capital Works program						
Asset ID	Sub category	Asset Name	Description	Planned Construction year	New Asset value	Useful Life (years)
New	FOOTPATHS	Russell Street	Complete Shared pathway loop	2024	\$73,000	50
<b>Subtotal</b>					<b>\$73,000</b>	
New	FOOTPATHS	Russell Street	Complete Shared pathway loop	2025	\$110,000	50
<b>Subtotal</b>					<b>\$110,000</b>	
<b>Program Total</b>					<b>\$183,000</b>	

Appendix C Budgeted Expenditures Accommodated in LTFP

**NAMS.PLUS3 Asset Management Liverpool Plains SC**

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FOOTPATHS\_S1\_V6

Asset Management Plan



First year of expenditure projections **2017** (financial yr ending)

**FOOTPATHS**

**Asset values at start of planning period**

Current replacement cost	\$4,522 (000)
Depreciable amount	\$4,522 (000)
Depreciated replacement cost	\$3,228 (000)
Annual depreciation expense	\$90 (000)

Calc CRC from Asset Register  
  
 This is a check for you.

**Operations and Maintenance Costs for New Assets**

Additional operations costs	0.15%
Additional maintenance	0.52%
Additional depreciation	1.99%

Existing %ages calculated from data in worksheet

0.15%	of CRC (10 yr average)
0.52%	of CRC (10 yr average)
1.99%	of Dep Amt
0.00%	of CRC (Year 1 comparison)

**Planned Expenditures from LTFP**

**20 Year Expenditure Projections**

Note: Enter all values in current **2017** values

You may use these values calculated from your data or overwrite the links.

Financial year ending	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
<b>Expenditure Outlays included in Long Term Financial Plan (in current \$ values)</b>											<b>Average of first 10 year Expenditure Outlays from LTFP</b>									
<b>Operations</b>																				
Operations budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Management budget	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7
AM systems budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total operations</b>	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7
<b>Maintenance</b>																				
Reactive maintenance budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Planned maintenance budget	\$22	\$22	\$23	\$23	\$23	\$24	\$24	\$25	\$25	\$25	\$24	\$24	\$24	\$24	\$24	\$24	\$24	\$24	\$24	\$24
Specific maintenance items budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total maintenance</b>	\$22	\$22	\$23	\$23	\$23	\$24	\$24	\$25	\$25	\$25	\$24	\$24	\$24	\$24	\$24	\$24	\$24	\$24	\$24	\$24
<b>Capital</b>																				
Planned renewal budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$72	\$83	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90	\$90
Planned upgrade/new budget	\$73	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Non-growth contributed asset value</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Asset Disposals</b>																				
Est Cost to dispose of assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Carrying value (DRC) of disposed assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0