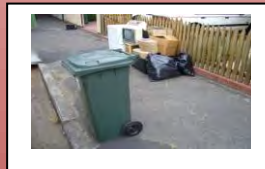
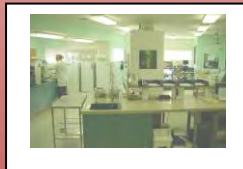
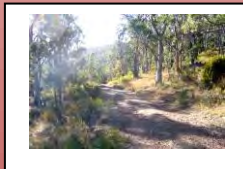


Based from Subordinate AMPs prepared in March 2016



# OVERARCHING ASSET MANAGEMENT PLAN 2016 - 2036



March 2016



## Forward

This document represents the ninth annual review of the Overarching Asset Management Plan.

The Overarching AMP is prepared as an internal reference document to provide a summary overview of all physical infrastructure under the control of Council and corresponding "State of the Assets Report" at the date of preparation. Key financial outputs are linked into the Council's Long Term Financial Plan.

The review incorporates the following 10 asset portfolios:

AMP Title	Asset Manager
Buildings	Building Asset Engineer
Bushland Infrastructure	Manager Bushland & Reserves
Information & Communication Technology	Coordinator Internet & Client Support
Parks Infrastructure	Manager Parks & Recreation
Plant, Vehicles & Equipment	Manager Fleet & Fabrication Services
Roads Infrastructure	Road Asset Engineer
Solid Waste Management	Cleansing & Solid Waste Policy Coordinator
Sporting Facilities	Program Leader Recreation & Projects
Stormwater Reticulation & Rivulets	Manager Road & Environmental Engineering
Miscellaneous Items	No formal Asset Manager. Activities of relevant Function Officers coordinated by Asset Financial Officers

This document has been prepared by the Manager Asset Services based on the March 2016 updated versions of the Strategic Asset Management Plans prepared for the Roads, Buildings and Stormwater asset portfolios, and State of the Asset reports prepared for all remaining portfolios as listed in the table above.

**CHAIRMAN** (Nick Heath)

### ELT/AMSC Membership:

Nick Heath	General Manager (Chairman)
Heather Salisbury	Deputy General Manager / Director Corporate Services
Glen Doyle	Director Parks and City Amenity
Neil Noye	Director City Planning
Mark Painter	Director City Infrastructure
David Spinks	Director Financial Services
Philip Holliday	Director Community Development

### Support:

Scott Morgan	Group Manager Infrastructure Planning
Colin Jones	Manager Asset Services

**Hobart City Council**

# January 2016 ASSET REGISTER



AMP Title	Asset Groups	Jan 2016 No. Assets	Jan 2016 Renewal Value
Buildings	Admin Offices, Car Parks, Depot Buildings, Grand Stands, Halls, Investment Properties, Public Conveniences, DKHAC. Other	201	\$291,178,444
Bushland Infrastructure	Bollards & Barriers, Bridges, Bush signage, Bushland Infrastructure, Fire Trails, Tracks	3,221	\$32,703,580
Information & Communication Technology	Laptops, Monitors, Multifunctional centres, Personal computers, Printers, Servers, Other IT assets	1,826	\$4,974,045
Miscellaneous Minor Items	Other Assets (Valuation Roll, Christmas decorations, Valuables, etc)	727	\$16,101,274
Parks Infrastructure	Fences, walls & edgings, BBQs, Bins, Lighting, Seating, Signage, Irrigation & drainage, Nursery & Skill Centre, Park & Street Trees, Pavement, Playground Items, Structures & Fountains, General Items	2,964	\$47,652,510
Plant, Vehicles & Equipment	Cars, Major Plant, Minor Plant, Trucks, Utilities & Vans	1,788	\$20,431,642
Road Infrastructure	Footpaths, Asphalt Footpaths, Concrete Footpaths, Parking Equipment, Road Bridges, Chip Seals, Drainage, Handrails/Guardrails, Overlays, Pavements, Retaining Walls, Structures & Fountains, Stormwater Pits & Other Assets	24,480	\$976,816,285
Solid Waste Management	Buildings, Landfill Site, Organic Waste, Recycling, Refuse Disposal, Wheelie Bins, Other Assets	612	\$10,181,065
Sporting Facilities	Fences, walls & edgings, BBQs, Bins, Lighting, Seating, Signage, Irrigation & drainage, Pavement, Sporting Equipment, Other Assets	1,011	\$52,043,330
Stormwater Reticulation & Rivulets	Reticulation Pipe work, Rivulets/Air Space, Other Assets	24,862	\$338,743,207
<b>Total Renewal Value (01/01/2015)</b>		<b>61,692</b>	<b>\$1,790,207,616</b>

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## ABBREVIATIONS

<b>AM</b>	Asset Management
<b>AMDP</b>	Asset Management Development Program
<b>AMP</b>	Asset Management Plan
<b>AMS</b>	Asset Management System
<b>AMSC</b>	Asset Management Steering Committee
<b>AVP</b>	Annual Variance Potential
<b>BAP</b>	Best Appropriate Practice
<b>BPM</b>	Business Process Manual
<b>CapEx</b>	Capital Expenditure
<b>CBC</b>	Council Business Centre
<b>CBD</b>	Central Business District
<b>CCTV</b>	Closed Circuit Television
<b>DKHAC</b>	Doone Kennedy Hobart Aquatic Centre
<b>ELT</b>	Executive Leadership Team
<b>FAIR</b>	Financial Asset Information Review
<b>GIGO</b>	Garbage In Garbage Out
<b>CoH</b>	City of Hobart
<b>ICAP</b>	Inner City Action Plan
<b>ICT</b>	Information and Communication Technology
<b>IIMM</b>	International Infrastructure Management Manual
<b>LTFMP</b>	Long Term Financial Management Plan
<b>LTRD</b>	Long Term Renewal Demand
<b>MAV</b>	Municipal Association of Victoria
<b>MEERA</b>	Modern Equivalent Engineering Replacement Asset
<b>MTRD</b>	Medium Term Renewal Demand
<b>NAF</b>	National Assessment Framework
<b>NAP</b>	New Asset Project
<b>O&amp;M</b>	Operations and Maintenance
<b>ODM</b>	Optimised Decision Making
<b>OpEx</b>	Operational Expenditure
<b>PAC</b>	Project Assessment Committee
<b>PVE</b>	Plant Vehicles and Equipment
<b>RD</b>	Renewal Demand
<b>RM</b>	Risk Management
<b>RV</b>	Renewal Value
<b>SDP</b>	Service Delivery Plan
<b>STRD</b>	Short Term Renewal Demand

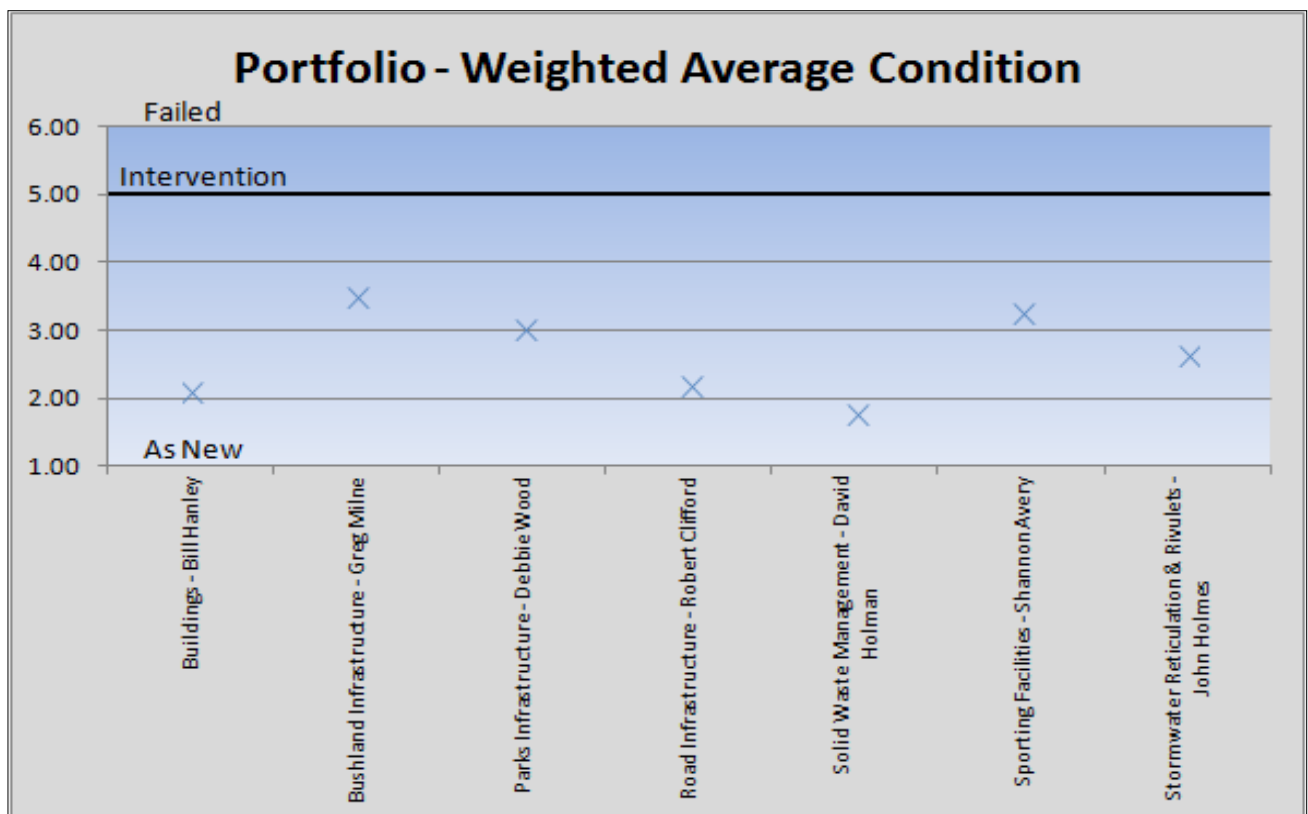
# STATE OF THE ASSETS SUMMARY REPORT - 2015

## HOBART CITY COUNCIL

### What are we responsible for?

Portfolio	No. Assets	Renewal Value	Long Term Renewal Demand
Buildings	201	\$291,178,444	\$3,052,104
Bushland Infrastructure	3,221	\$32,703,580	\$927,689
Information & Communication Technology	1,826	\$4,974,045	\$1,241,817
Miscellaneous Items	727	\$16,101,274	\$1,535,001
Parks Infrastructure	2,964	\$47,652,510	\$1,604,297
Plant, Vehicles & Equipment	1,788	\$20,431,642	\$2,636,454
Road Infrastructure	24,480	\$976,816,285	\$12,981,234
Solid Waste Management	612	\$10,181,065	\$392,534
Sporting Facilities	1,011	\$52,043,330	\$1,224,538
Stormwater Reticulation & Rivulets	24,862	\$338,743,207	\$2,987,402
<b>Total "All Portfolios"</b>	<b>61,692</b>	<b>\$1,790,207,616</b>	<b>\$28,583,070</b>

### Where are the assets within their lifecycles?



Note: Short life asset portfolios (ICT, PVE & Misc Items) are not included in this graph

## How do we perform against standards?

### Assets are Appropriate:

KPI	Result	Target	Comment
❖ Service	N/A	To be set	KPIs in Development
Functionality	N/A	To be set	
Capacity	N/A	To be set	
Quality	N/A	To be set	
❖ Condition	2.3	To be set	
❖ Defect	N/A	To be set	

### Assets are Affordable:

KPI	Result	Target	Comment
❖ Backlog	10.0%	100.0%	Data development still in progress.
❖ Premature Renewal	30.8%	0.0%	Data development still in progress.
❖ Renewal Demand Funding Indicator (20 year)	100%	100.0%	Council fully funds renewal demand over the 20 year forecast period
❖ Renewal Demand Growth Indicator	+0.5%	To be set	Target to be set to align with long term funding strategy.

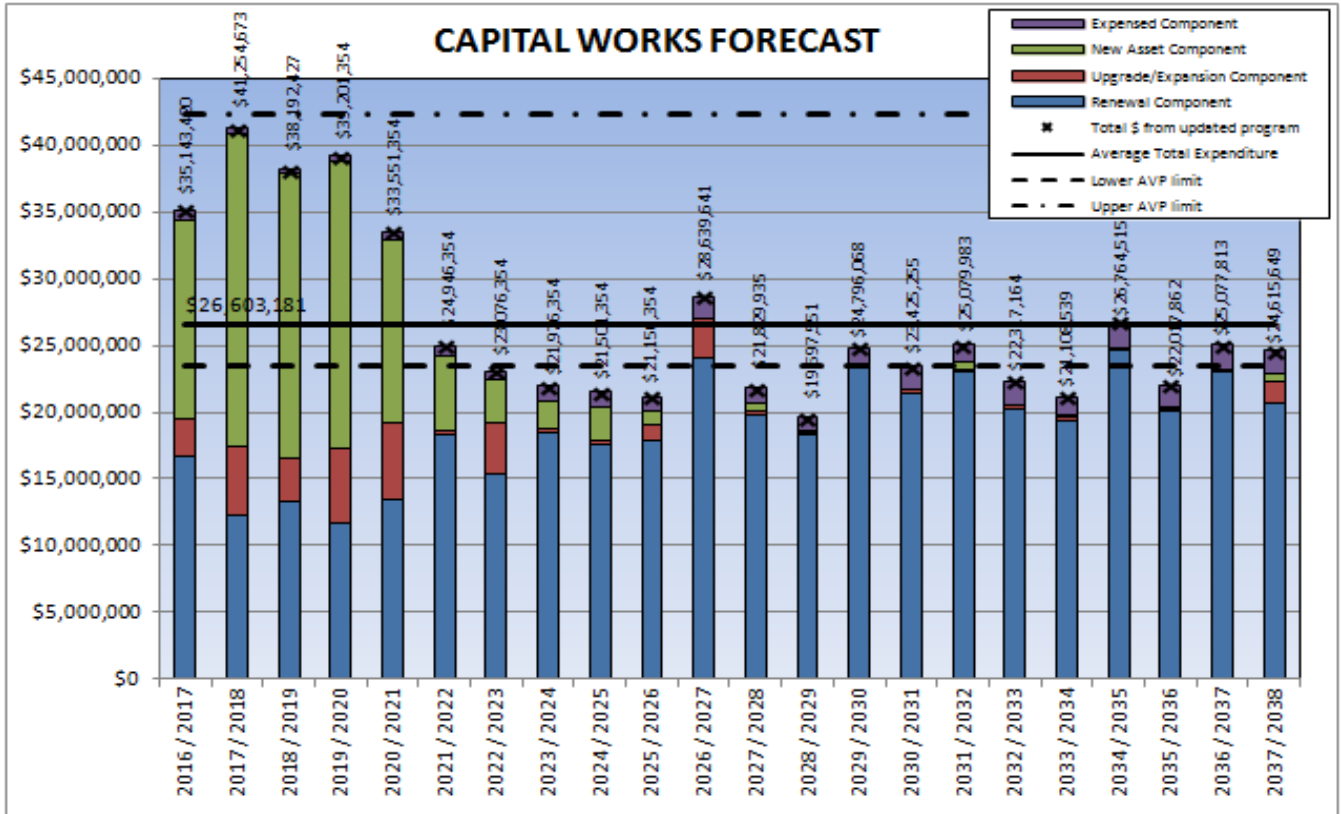
### Confident in our Data:

Portfolio	Result	Target	Comment
Buildings	2.00	2.00	Data improvement plans are in place to address identified gaps  * 2014 values
Bushland Infrastructure	2.06	2.00	
Information & Communication Technology	1.13	2.00	
Miscellaneous Items	2.96	2.00	
Parks Infrastructure	2.60	2.00	
Plant, Vehicles & Equipment	1.06*	2.00	
Road Infrastructure	2.69	2.00	
Solid Waste Management	3.45	2.00	
Sporting Facilities	2.38	2.00	
Stormwater Reticulation & Rivulets	3.00*	2.00	
<b>Average</b>	<b>2.33</b>	<b>2.00</b>	

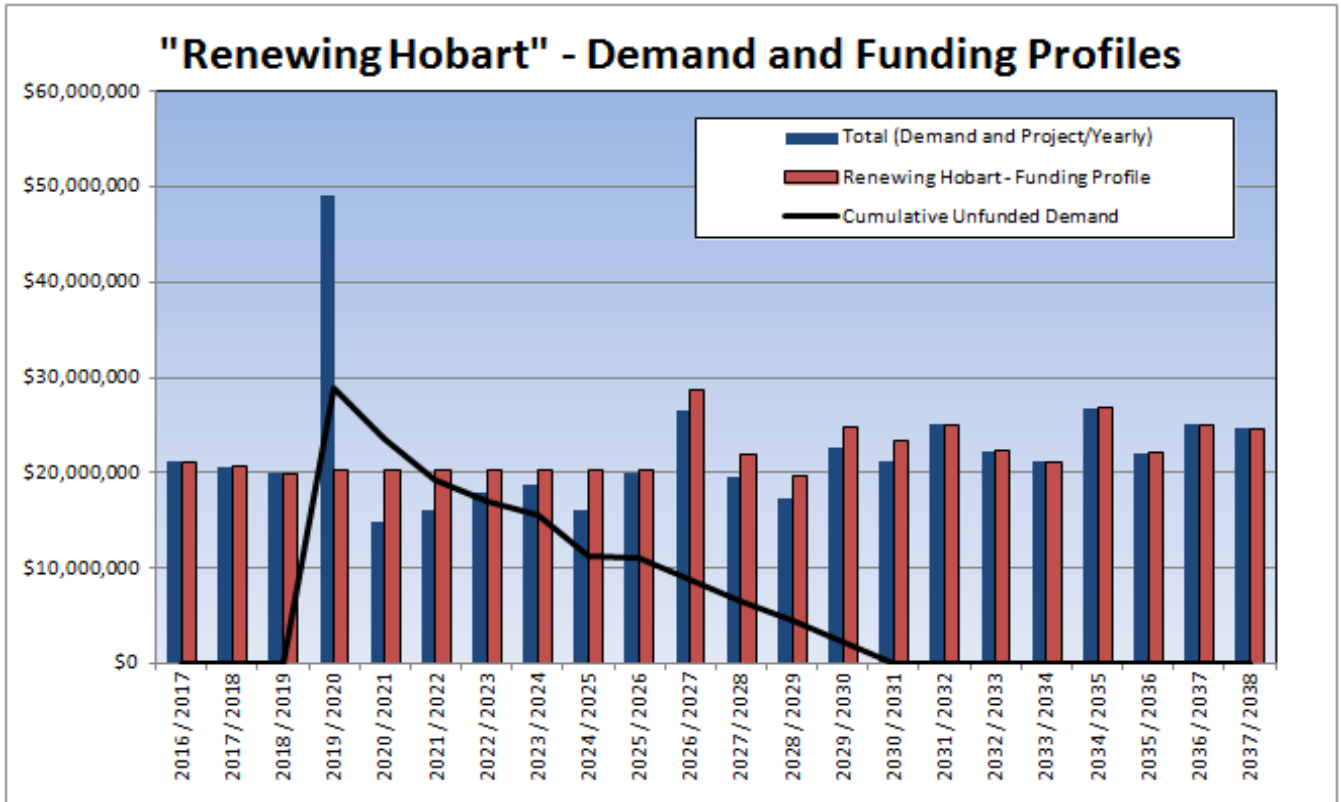
### Adopting Best Appropriate Practice (BAP):

Key Success Factor	2015 Result	BAP Target	Comment
1. Organisational Commitment	91 😞	94	Asset Management Development Program in place
2. People Issues	88 😞	88	
3. Funding	96 😞	100	
4. Quality Management.	94 😞	94	
5. Strategic Planning	90 😞	94	
6. Risk Management.	93 😞	93	
7. Service Delivery	78 😞	100	
8. Infrastructure Planning	94 😞	94	
9. Integrated Decision Making	93 😞	93	
10. Infrastructure Provision	76 😞	86	
11. Operations & Maintenance	91 😞	97	
12. Asset Performance	84 😞	85	
13. Asset Knowledge	97 😞	97	
<b>Average</b>	<b>89</b>	<b>93</b>	

# 20 Year CapEx Requirements



## Are we fully funding CapEx within the forecast period?





## What are the Key Messages for Council?

### **General State of the Assets**

- ❖ Current condition assessments indicate that Council's infrastructure, in general, is in relatively good condition. *This is characterised within the long-life asset portfolios such as roads, buildings and stormwater which account for in excess of 90% of the value of the asset base.*
- ❖ There has been little change in the assessed level of data confidence since 2010. *This observation is attributed to a number of factors which include optimistic assessment during the earlier stages of the AMP production, changing data requirements to satisfy modelling input specifications and a realisation through risk assessments that, as we gain understanding of our infrastructure performance to meet service demands, we comprehend the need to extend our understanding into areas previously considered unimportant.*

### **Variance to 20 year forecasts:**

- ❖ Forecasts are based on the best available information. *But it has been recognised that there is potential for future forecasts to vary significantly above current stated values because of uncertainties relating to a range of identified factors. The reported scenario provided within this AMP is considered to tend towards the "best case" outcome for Council.*
- ❖ As demonstrated by the extent of premature renewal, renewal expenditure forecasting adopts asset lives which are possibly extended beyond what is being experienced. *Experience is showing that some assets, particularly as we enter the Transforming Hobart phase, will be replaced before their due date primarily in response to service and other influences. Asset lives will need monitoring to determine if any adjustment is necessary.*
- ❖ Forecasts of write-off and expensed amounts, as reflected within the LTFMP, are linked to the scope of works comprising projects included within the forward works program. As many of the listed projects are still within the early stages of planning, information necessary to accurately derive expensed requirements and write-off implications are not completely reliable. Consequently, write-off and expensed forecasts provided to Financial Services are only estimates based from limited project detail and information that is currently available.

### **Funding renewal demand in the forecast period and beyond:**

- ❖ *Based from current project scoping and corresponding level of asset detail, the 3 year capital works program incorporates 31% of funding to address premature renewal resulting from service demand requirements. The prioritisation of these works is in preference to 10% of renewal backlog located within year 4 of the forecast period.*
- ❖ *At current expenditure settings Council can fund its asset renewal needs over the 20 year forecast period. However, during the earlier stages of the forecast period, there will be approximately \$30M level of unfunded renewal demand*

*which will impact the extent of renewal backlog beyond the current 10% and will need to be effectively managed, such as frequent inspections and additional maintenance.*

- ❖ *Renewal demand will remain relatively stable over the 20 year forecast period. However, the rate of asset deterioration is expected to increase beyond this period which will impose considerable financial strain on the community at that time unless adequately planned for.*
- ❖ *The rate of asset expansion can compound the problem of funding renewal demand. To date, Council has effectively controlled asset expansion through a limit placed onto new asset investment of \$1.5M annually. The renewal demand growth indicator confirms that past growth has been insignificant. The impacts of the “Transforming Hobart” initiative by Council however, will need to be analysed when fully scoped and defined to assess the renewal and O&M growth consequences. The \$96M cost of the Transforming Hobart is equivalent to 5% of the Council’s current total asset renewal value.*
- ❖ *The forecast requirements for Operations and Maintenance expenditure detailed within this document are indicative and for information only. The next stage of asset management development will need to better understand O&M requirements going forward over the forecast period, and enable predictions of the impact of new and upgrade investment decision making on future operational demands.*

# 1 INTRODUCTION

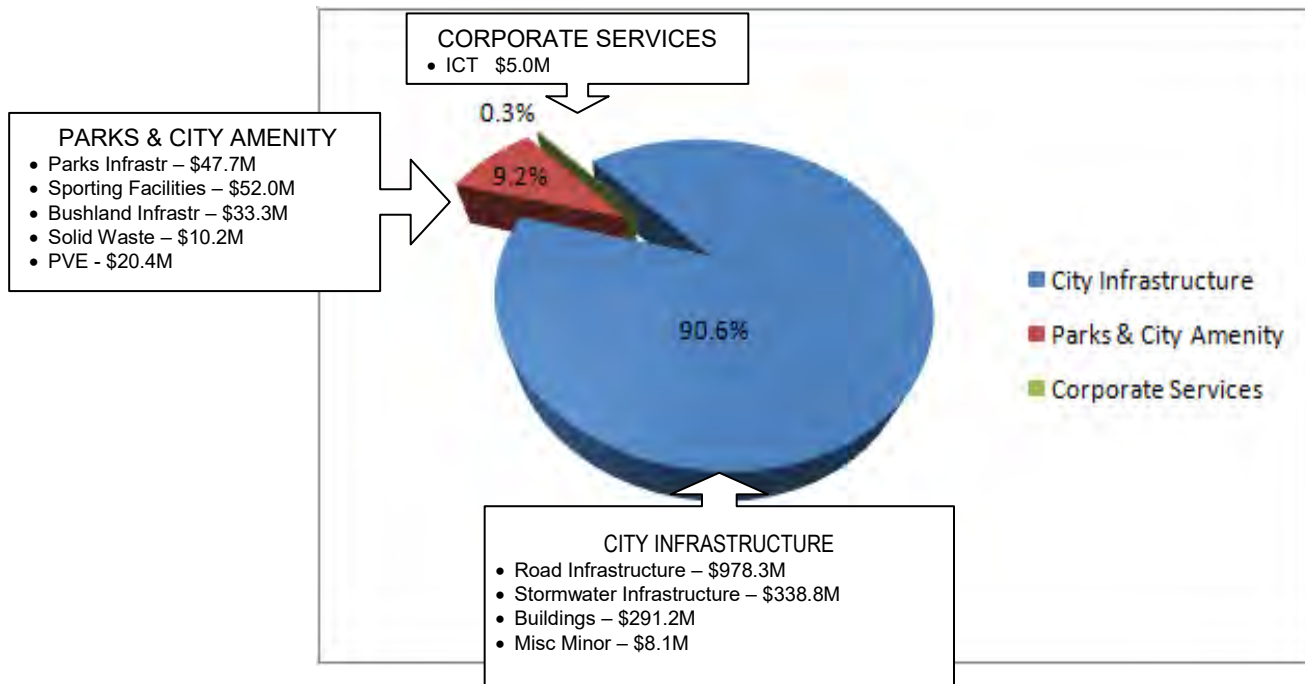
## 1.1 Scope

This Overarching AMP document provides the *corporate overview of key outputs from the 10 sub-ordinate AMPs tabled at the March 2016 “State of the Asset” report workshop between asset managers and the Executive Leadership Team. This AMP includes revised capital forecasts based from updated information and data in the Conquest AMS.*

*This document encompasses all physical infrastructure under the control of the City of Hobart.*

*The Council Divisions responsible for the respective subordinate AMPs and management of the associated infrastructure are detailed below, along with the renewal values of assets for each asset portfolio:*

### Renewal Value by Division Responsible for Asset Management



## 1.2 Background

This document represents the ninth annual revision of the overarching asset management plan. The March 2016 AMP subordinate documents have been prepared to accord with the recent amendments to the Local Government Act within a revised format.

The main objective of the AMP preparation process is to align with the Council Strategic Plan and generate annual capital works programs and medium and long term capital expenditure forecasts based on the best tools available and information which reflects current levels of service.

In doing this, the various asset portfolios apply different methods of renewal forecasting depending on the nature of the assets involved and data available. Methods range from basic annual amounts aligned with historic average renewal demands, to forecasts generated from renewal dates as derived from acquisition dates and standard lives, to more advanced methods utilising modelling software that apply deterioration curves to predict the timing and value of future renewals.

Operating and maintenance (O&M) forecasts represented within AMP documents are largely extrapolations of the allocations represented within current (2015/2016) operating budgets under the control of Function Officers. Current AMPs provide O&M forecasts for information only. It is planned that future version AMP documents will provide 20 year O&M forecast profiles based on methodologies which link O&M to new assets as well as asset condition and specified service levels.

Forecasts presented within this AMP documents must be interpreted or applied with consideration to the assumptions and limitations detailed under Section 3.

The City's level of AM maturity has been assessed relative to the "Core" standards contained within the Australian Centre of Excellence for Local Government (ACELG) National Assessment Framework (NAF) through participation within the Municipal Association of Victoria "STEP" program. The City performs well relative to comparable Victorian inner metropolitan councils but, as with many councils, has yet to achieve the "Core" level requirement against all eleven assessment criteria. Elements outstanding include the current low level of maturity in service planning which is needed to adequately guide and interface with asset management planning.

The Asset Management Strategy 2010 to 2015 established Key Actions and Improvement Tasks which focused the City's efforts on initiatives to support the achievement of best appropriate practice. Best appropriate practice is a target outcome which Council has set itself to manage assets effectively and sustainably in accordance with available resources and, if achieved, will also satisfy the "Core" level NAF requirements.

Over the term of the Strategy the annual revision of AMPs is progressively generating capital forecasts with increasing levels of confidence and incorporating the impacts of risk factors.

### 1.3 2015 Achievements

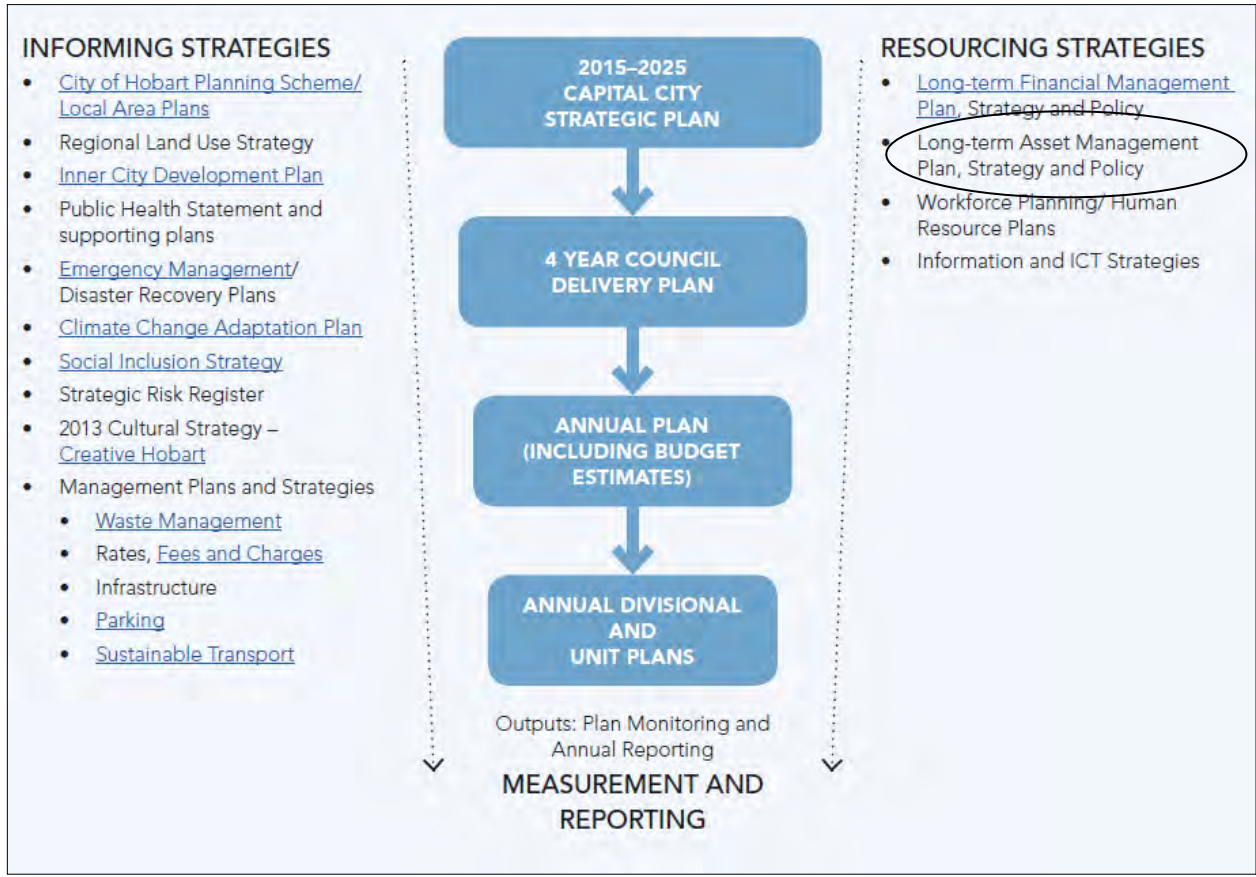
Notable improvements in asset management during the 2015 calendar year are listed below:

- Continued improvement in the level of project detail provided within Master Actions within the Conquest system from which higher accuracy level outcomes were possible in relation to capital evaluation/prioritisation, progress tracking against endorsed programs and financial forecasting (write-off, depreciation and expensed amounts),
- The application of the Risk Quantification RQ process which enabled the generation of cost : benefit ratios associated with projects associated with the New Asset Program and prioritisation for inclusion within the 2016/17 capital works program,
- The establishment of a revised 20 year capital forecast template which includes a detailed 3 year capital works program and year 4 storage silo to contain projects and renewal/service demand that has been justified but awaiting inclusion into the 3 year project planning period based on priority ranking and resourcing capabilities,
- The transition across to the two part AMP document template which accords with new state legislative requirements incorporated in the Local Government Act,
- Establishment of first cut asset operational risks for inclusion within the Corporate Risk Register associated with the Roads, Buildings and Stormwater asset portfolios, and
- Review of the annual variance potential of forecast renewal requirements associated with the Roads, Buildings and Stormwater asset portfolios.

### 1.4 Linkages with the Strategic Framework

Council's Asset Management Framework describes the manner by which asset management is implemented in accordance with the 11 elements comprising the National Asset Management Assessment Framework.

The linkage of asset management with the strategic framework is illustrated below.



## 2 EXPENDITURE FORECASTS - CONFIDENCE LEVELS

### 2.1 Introduction

A forecast is considered to be “robust & reliable” if it addresses all factors and considerations that CoH can be reasonably expected to take into account. This includes meeting the following criteria:

1. Based on data that is:
  - a. Suited to the purpose (Fit for Purpose),
  - b. Complete, and
  - c. Accurate.
2. Use of a forecasting methodology that takes into account all factors that CoH can be reasonably expected to know about; and
3. Significant variations from the forecasts are only likely if:
  - a. Currently known factors change in unpredictable ways; or
  - b. Currently unknown factors eventuate.

The 2016 forecasts have been prepared based from the best information and systems currently available to asset managers.

As part of the annual AMP review process, asset managers are required to clarify their forecasts under “Section 5.1.3 – Confidence in the data” of the Part 2 “State of the Assets” reports.

For the three major portfolios, Roads; Buildings & Stormwater, the March 2016 Part 1 “Strategic Asset Management Plan” include discussion and assessment of confidence level under the following sections:

- Section 2.5 - Data Confidence
- Section 5 – Expenditure Forecast Methods & Confidence

### 2.2 Assumptions, Limitations & Forecasting Methodology

As a general overview, key assumptions and limitations relating to all asset portfolios are summarised as follows:

- Forecasts have been prepared based on current levels of service. The impact of changes to services or service levels currently provided has not been considered.
- Class 34 & 36 minor P&E assets - forecasts do not include requirements for the replacement of some asset types which are below the \$500 threshold limit (eg office equipment).
- For minor P&E assets with renewal value <\$5,000 the forecast is based on LTRD.
- For minor P&E assets with renewal value >=\$5,000 the forecast is based on sum of renewal values in each financial year.
- Forecast values represented over the 20 year forecast period are based on the expected cost of works as at December 2016 (ie. the midpoint of year 1 of the forecast period)
- Unit rates associated with modern equivalent engineering asset replacement (MEERA) types, where established, are used as the basis of forecasting. In all other instances, like for like unit replacement rates have been used.
- Replacement valuations against some assets have been set to zero. This has been based on the assumption that a particular asset will not be replaced by the CoH upon expiry. This opinion may be reviewed at a later date subject to service demands or other influences.
- Future consideration of replacement unit rates and standard lives by the FAIR Panel, based on revised data or new information, may alter the timing or \$ amounts detailed within the current forecast.
- Assets with a standard life less than the 20 year forecast period are represented recurrently on a cyclic basis by replicating the replacement cost from the current renewal date at a frequency equal to the standard life.
- The renewal value of assets included within projects may be adjusted from default planning rates to a more detailed estimate depending on the scope, design and type works to be undertaken. This may cause either an increase or decrease to the forecast amounts during the project planning period.
- The timing and value of renewal works over the 20 year forecast period are generated from one of four approaches:

1. Annualised (Grouped) allocation:- Applies where the asset manager has established an annual allocation to cover the cost of replacing assets. This normally applies to asset groups incorporating large quantities of short life and low valued assets such as signs, bollards, bins etc. Asset portfolios predominantly incorporating annualised allocations for specific asset groups include Bushland, Sporting and Parks. Stormwater has also adopted this approach for all works associated with its forecast based on historic funding levels to address reactive works until they are further advanced with data improvement initiatives.
2. Projected Short Term Renewal Demand:- A variance of the annualised allocation approach is used by Information & Communication Technology where they are reasonably able to forecast over the first 3 year period for the range of short life assets, but not beyond. For this forecast, the average of the first 3 year period is normally projected annually over the 20 year period.
3. Renewal Date method:- Renewal dates are calculated by the Conquest system for each asset by adding the standard life to the asset's creation date. The renewal date then establishes the timing of renewal. This method is commonly utilised where formal condition assessments are not undertaken.

For assets constructed after about 1990, creation dates can generally be determined by evidence. Prior to 1990, where information regarding creation dates is not available, asset managers have either estimated the date applying limited available information or Conquest has calculated these dates based on an assessment of the asset's condition. The condition assessment represents the proportion of the standard life consumed which, when deducted from the assessment date, estimates the date of creation.

The limitations of the Renewal Date method are:

- Level of uncertainty associated with asset creation dates.
- Application of the asset type standard life to an aligned asset as a substitute for the actual useful life of the asset. The actual useful lives of assets are influenced by utilisation, exposure and site conditions which generally vary for the assets aligned with an asset type. A high level of certainty in relation to the useful life prediction is not possible until the asset approaches expiry.
- The renewal values of assets used as the default reflect the complete replacement of the asset. In many instances however, work requirements only necessitate the partial renewal or rehabilitation on an asset to address a localised defect.
- In relation to Plant, Vehicles and Equipment the replacement value (or changeover amount) is dependent on the accuracy of the "At Cost" purchase price, which is indexed from the date of acquisition, less the anticipated residual value from the future sale price.

Asset portfolios predominantly using this approach include Plant, Vehicles & Equipment, Bushland, Sporting, Solid Waste Management and Miscellaneous Items.

4. Modelling of Renewal Requirements (MyPredictor software):- Applied to the Roads Infrastructure and Buildings asset portfolios.

Modelling algorithms are reliant on specific data to generate forecasts. This information is available against these portfolios. The modelling data requirements normally include:

- Condition ratings (how deteriorated the asset is)
- Service ratings (how the asset addresses service requirements such as Functionality, Capacity and Quality aspects)
- Intervention levels (the point at which the asset is renewed)
- Deterioration curves (the rate at which the asset deteriorates over time)
- Asset quantities or dimensions
- Treatment types and related unit costs

MyPredictor enables forecasts to be generated for each asset and asset components if reduced to this level. The MyPredictor software also enables asset level scrutiny of the outcomes and has the capacity to apply "what if scenario" sensitivity analysis to key inputs.

The key outputs from the software are the annual expenditure requirements for each year of the forecast period and revised renewal dates for each of the assets/components incorporated within the forecast.

Revised renewal dates are uploaded into the Conquest AMS to represent the best estimate by the asset manager as to when the asset will be due for replacement.

## 2.3 Data Confidence

In a forecasting context, high levels of data confidence are critical to avoid GIGO. That is, “Garbage In” leads to “Garbage Out” irrespective of the capacity of the operating/processing system.

In support of robust and reliable forecasting, the data should provide for the following as a minimum requirement:

- We know what we are responsible for and are clear on our future obligations with its replacement and operation.
- We know what it is, where it is and what size it is.
- We know why we have it, what condition it is in and how long it can remain in service.

Reported confidence levels represent the judgement of the asset manager as to the quality of data associated with their respective portfolios as expressed on a scale of 1 (very good) to 5 (very poor). An assessment is made against data completeness and data accuracy rating guidelines for each group of assets within their portfolio. This then enables an aggregated weighted assessment at the “portfolio” level.

The analysis is used to trigger data improvement initiatives to achieve the target rating of “2”.

A summary of data confidence ratings across all portfolios and relationship across the period from 2010 is provided in the table below. On a Council wide basis, Long Term Renewal Demand (LTRD) provides a perspective on the relative impact of poor data on the overall renewal forecast.

Portfolio	Average Confidence Level 2010	Average Confidence Level 2011	Average Confidence Level 2012	Average Confidence Level Feb 2016	Target Confidence Level	Feb 2016 LTRD
Buildings	2.19	2.50	2.25	2*	2	\$3,052,522
Bushland Infrastructure	3.14	3.18	3.79	2.06	2	\$925,041
ICT	1.00	1.00	1.00	1.13	2	\$1,236,296
Miscellaneous Items	1.00	4.00	2.62	2.96	2	\$1,523,876
Parks Infrastructure	4.24	4.26	2.85	2.60	2	\$1,606,701
Plant, Vehicles & Equipment	1.12	1.06	1.06	1.06***	2	\$2,617,506
Road Infrastructure	2.35	2.30	2.30	2.69**	2	\$12,951,107
Solid Waste Management	2.50	1.53	1.78	3.45	2	\$392,534
Sporting Facilities	2.48	2.39	3.09	2.38	2	\$1,218,622
Stormwater Rivulets & Retic.	3.10	3.10	3.00	3.00***	2	\$2,987,643
	<b>2.35</b>	<b>2.43</b>	<b>2.32</b>	<b>2.33</b>	<b>2</b>	<b>\$28,511,848</b>

\* Relates to assessment of Level 1 component data accuracy. Level 2 components = 3.5; Level 3 components= 4.5

\*\* Although data improvement initiatives have been implemented, asset group refinement, which has resulted in separate assessments, has impacted the increase in average confidence rating.

\*\*\* Not revised in 2015. Adopt previous assessments.

The results over the four year period indicate little improvement in the overall data confidence rating as the result of data improvement initiatives undertaken over recent years since 2012.

Ideally, there needs to be a significant improvement in the level of understanding of our infrastructure, particularly associated with the legislated Buildings, Roads and Stormwater asset portfolios. Improvement plans exist within each of the Strategic AMP documents to incorporate specific additional data collection and processing initiatives to support best appropriate asset management practice requirements. However, improvement plans will require a commitment of resources and funding to implement and will rely on budget allocations going forward.

## 2.4 Forecast Assurance

Forecast assurance has been a major focus of the AMSC to ensure that information linked into the LTFMP is as accurate as possible with an understanding of those factors which may impact capital expenditure.

In 2011, the AMSC instigated an initiative which required asset managers to identify the predominant factors and then quantify the impact on the capital forecast, expressed as a variance potential to the \$ amount provided.

The process commenced in 2011 with the listing of only the predominant factors within the 2011 AMP documents.



The initiative continued into 2012 by incorporating asset and service management related personnel from each of the portfolios to further consider previously identified factors and determine the consequences of associated events, provide a best estimate of the likely cost impact on Council and the annual probability of occurrence. Adopted values are established through a consensus of opinion by the participants of the assessment groups.

The outcome of this analysis generated the Annualised Variance Potential (AVP) which is calculated as the product of the risk cost to Council by the annual probability. The AVP will represent either an Unfavourable cost (addition) or Favourable cost (reduction) variance to the 20 year renewal forecasts.

During 2015, a revision of the AVP relating to the major portfolios, Roads, Buildings and Stormwater, was undertaken as part of the inaugural preparation of the Part 1 "Strategic Asset Management Plans".

The result of the 2015 analysis, together with previous results in other portfolios, is detailed in Appendix 1 and summarised in the table below.

Plan Title	AVP Unfavourable	AVP Favourable	AVP Total	20 yr Av. Renewal Requirement	% Variance Potential
Buildings	\$3,452,500	-\$500,000	\$2,952,500	\$3,446,211	86%
Bushland Infrastructure	\$1,262,000	-\$55,000	\$1,207,000	\$841,223	143%
ICT	\$0	\$0	\$0	\$972,264	0%
Miscellaneous Items	\$0	\$0	\$0	\$657,487	0%
Parks Infrastructure	\$1,869,000	-\$305,000	\$1,564,000	\$1,062,665	147%
Plant, Vehicles & Equipment	\$910,000	-\$1,002,500	-\$92,500	\$2,362,626	-4%
Road Infrastructure	\$6,255,750	-\$1,201,250	\$5,054,500	\$8,493,967	59%
Solid Waste Management	\$136,000	-\$27,500	\$108,500	\$247,582	44%
Sporting Facilities	\$667,500	-\$22,500	\$645,000	\$957,732	67%
Stormwater Rivulets & Retic.	\$1,138,750	-\$0	\$1,138,750	\$874,078	130%
<b>Totals</b>	<b>\$15,691,500</b>	<b>-\$3,113,750</b>	<b>\$12,577,750</b>	<b>\$19,915,835</b>	<b>63%</b>

The aggregated outcome suggests, on average, that forecasts provided in the AMPs could be up to \$12.5M (63%) annually lower than what may actually be encountered by Council over the duration of the forecast period.

**A consequence of the imbalance between Favourable and Unfavourable variances is that current forecasts tend largely towards the "best case scenario" outcome suggesting that actual events during the forecast period will likely result in greater levels of expenditure requirement than is being reported.**

Grouping factors into 3 "demand" related categories enables a focus of effort on control measures to limit the AVP. The extent of AVP associated with each demand category is detailed in the following table together with adopted control measures.

Demand Category	Risk Factor Category	Risk Factor Category AVP	Demand Category AVP	% Variance Potential	Expenditure Type	ELT/AMSC Control Measures to lower AVP
Renewal Demand	Design Solutions	\$500,000	\$2,339,000	12%	Non-Discretionary	Continue initiatives within the AM Strategy
	Forecasting	\$2,222,750				
	Project & Contract Management	-\$1,081,250				
	AM Practices	\$22,500				
	Plan Works	\$100,000				
	Existing Infrastructure	\$575,000				
Service Demand	Service Planning & Management	\$3,535,000	\$5,290,000	27%	Discretionary	Introduce Service Management/Planning
	Service Forecasting	\$555,000				
	Resourcing	\$1,200,000				
External Demand	Political	\$197,500	\$4,948,750	25%	Imposed	2012 ELT directive that no additional controls required. Consider funding options at the time of the event.
	Economic	-\$21,500				
	Environmental	\$1,127,000				
	Legal/Regulatory	\$2,313,750				

Demand Category	Risk Factor Category	Risk Factor Category AVP	Demand Category AVP	% Variance Potential	Expenditure Type	ELT/AMSC Control Measures to lower AVP
	Socio Cultural	\$300,000				
	Other Utilities	\$1,032,000				
<b>Total AVP</b>			<b>\$12,577,750</b>	<b>63%</b>		
<b>20 year average renewal demand</b>			<b>\$19,915,835</b>			

The assessment indicates that uncertainty is predominantly associated with Service and External Demand factors.

In 2012, the decision was made by the ELT/ AMSC to exclude consideration of “External Demand” by dealing with these events separately on a case by case basis as they occur.

The “Renewal and Service Demand” factors however, remain under the influence and control of Council.

To achieve greater certainty in the accuracy of future capital expenditure forecasts, the challenge for Council will be to implement measures which can reduce the current AVP unfavourable estimate of approximately \$7.5M/yr to a more reasonable level of possible variation.

These measures should be incorporated into actions aligned with Council’s Strategic Plan under Strategic Objective 5.3 “Quality services are delivered in a safe, cost effective and efficient manner”, with particular reference to:

- 5.3.1 Optimise service delivery to ensure organisational sustainability and best value for the community
- 5.3.3 Optimise sustainability of services by enhancing asset management practices
- 5.3.4 Develop and implement an asset management strategy
- 5.3.5 Match workforce capability and fitness to operational requirements

## 3 ASSET PERFORMANCE

### 3.1 Introduction

Best practice asset management ensures that the organisation establishes and maintains documented performance measures which verify the achievement of targets that align with organisational goals and objectives.

The primary function of assets is to enable the delivery of services that are **appropriate** and **affordable** for current and future generations. To ensure that Council can achieve these objectives, it must establish processes and systems to **best appropriate practice** standards which are commensurate with its resource capacity.

In this context, the establishment of meaningful performance measures and corresponding targets is impossible without effective dialogue with service custodians under a framework of service delivery planning which formalises service level outcomes with the community and other relevant stakeholders. This is currently not in place or formally documented/reported.

In lieu of established performance measures linked to service provision with corresponding service performance targets, the following approach has been adopted to report the current status of infrastructure provision.

#### **Assets are Appropriate:**

During 2012, performance standards associated with the larger portfolios were reflected within the initial version Business Process Manuals (BPMs). BPMs include standards and guidelines associated with Hierarchies/Criticality, Service Ratings, Condition Ratings and Defect Ratings. These are reported under Section 3.2.

#### **Assets are Affordable:**

Financial sustainability indicators measure the capacity of Council to fund the short and medium term renewal demand requirements. These are reported under Section 3.3.

#### **We adopt Best Appropriate Practice:**

Assessment of Council's asset management processes and systems are undertaken against the Best Practice Framework and are reported under Section 3.4.

### 3.2 Assets are Appropriate

Council assesses whether assets are appropriate with reference to three key performance criteria which consider the current assets within the portfolio against standards established for service levels, general condition and maintenance.

These indicators include:

- Service Ratings (*How well are our assets meeting current service standards?*)
- Condition Ratings (*Is the condition of the network changing and how does this relate to strategic objectives?*)
- Defect Ratings (*How well are we meeting maintenance standards?*)

#### 3.2.1 Service Ratings:

*(How well are our assets meeting current service standards?)*

Business Process Manuals are intended to define service criteria to meet the “functional”, “capacity” and “quality” requirements of assets. Criteria may differ depending on the relative importance of the asset as expressed by hierarchy or criticality classifications.

A Service Rating is an assessment on a scale of 1 to 5 as to whether the asset is above, at or below the required standard established for that asset.

In this regard, the service rating can compare the performance capabilities of the current asset with the specified desired standard and be used to prompt whether the asset is providing higher or lower levels of service than required. This may lead to an upgrade or downgrade when next scheduled for capital works.

The service rating performance indicator is used to denote the percentage of assets aligned with a type, group or portfolio which are rated above, at or below service level standards.

The Conquest AMS facilitates the assessment of service ratings which will proceed once standards are included within respective Business Process Manuals.

Currently this performance indicator is in the development stage and is not reported.

**“Service Rating” Performance Indicator = % Asset Qty below, at & above standard** (type, group or portfolio level)

### 3.2.2 Condition Ratings:

*(Is the condition of the network changing and how does this relate to strategic objectives?)*

Condition is a measure of where the asset is within its lifecycle.

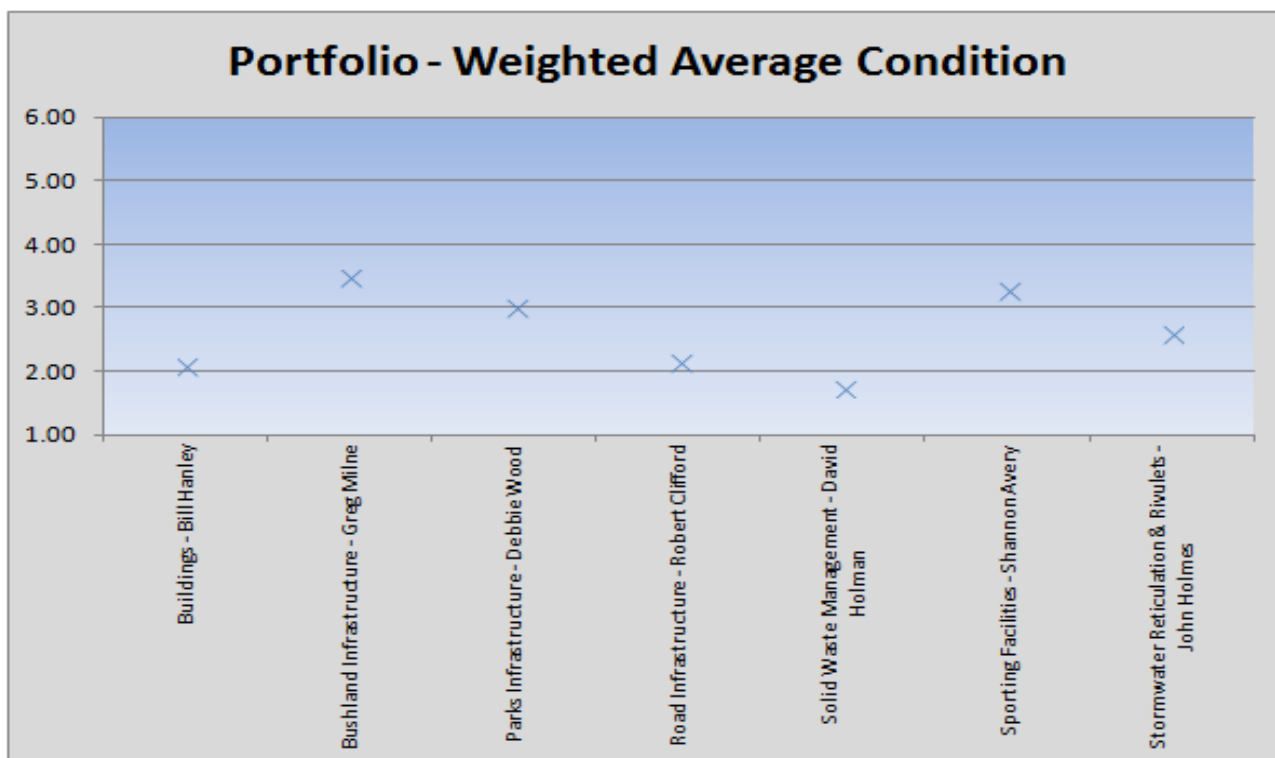
An asset condition assessment investigates for possible failure modes which cause asset deterioration to the point of ultimate failure of the asset. The presence of a failure mode in action is revealed by the existence of tell tale defects on the assets.

A condition score is expressed on a scale of 1 to 6, whereby “1” represents an asset in “As New” condition to “6” which represents “Failure” and removal from service. The intervening values reflect stages within an asset’s life, with “5” used to indicate the optimal point of intervention for renewal.

The average condition of a collection of assets, whether at the type, group or portfolio level, provides a high level assessment of the general condition of those assets, and can be used to determine whether the general condition of the collection is declining, remaining constant or improving over time.

This indicator may then be used, for example, as an analytical assessment of whether particular funding strategies are effective in achieving network condition state improvement goals.

The weighted condition indicator at the portfolio level displays the 2015 result in the following manner:



The indicator can also be applied at the asset group level to monitor trends which enable more refined levels of analysis which are distorted or obscured at the portfolio level. This more detailed level of reporting is provided within each subordinate Asset Management Plan.

The assessment is not undertaken on portfolios generally comprising short life assets, as associated with the Miscellaneous Items, Plant, Vehicles and Equipment and Information, Communications and Technology asset portfolios.

As 2015 is the first year of reporting on the 1 to 6 rating scale, comparison with previous year’s assessments cannot be made.

During the initial years of condition monitoring there may be some degree of fluctuation in the indicator as data is collected and improved through consistently applied assessment methodologies reflected within Business Process Manuals (BPMs).

A more detailed representation of condition at the asset group level within each of the portfolios is provided within **Appendix 3**.

### 3.2.3 Defect Ratings:

*(How well are we meeting maintenance standards?)*

The Defect Rating monitors compliance with specified maintenance standards.

Maintenance standards are provided within BPM documents for each major portfolio. It is the role of the asset manager to define defects which require assessment and repair when prescribed intervention levels have been met.

Defects require repair to ensure that the asset reaches life expectations. Defects on assets can also associate with service related capacity (ie clearing blocked pipes) or quality (fixing tripping hazards on walkways) which require repair to enable utilisation to meet expectations.

In terms of performance monitoring, three aspects of Defect Rating are pertinent.

1. Assets are pro-actively inspected in a timely manner,
2. Defects are recorded when intervention is required, and
3. Defects are rectified in a timely manner.

**“Defect Rating” Performance Indicator = Not yet defined**

## 3.3 Assets are Affordable

Council's AM Policy “acknowledges that the goal of asset management is to achieve the required level of service in the most cost effective way through the creation, acquisition, maintenance, operation, renewal and disposal of assets to provide for both present and future generations.”

In an effort to gauge the affordability of infrastructure provision on an ongoing basis, a series of four key performance indicators have been developed.

These indicators include:

- Backlog Indicator *(Are we adequately funding assets that have reached our intervention standards?)*
- Premature Renewal Indicator *(What value is being lost from the asset's current functional service potential?)*
- Renewal Demand Funding Indicator *(Are we keeping up with renewal demand over the period of the LTFMP?), and*
- Renewal Demand Growth Indicator *(At what rate is long term renewal demand changing over time as the result of current investment decisions?).*

### 3.3.1 Backlog Indicator (BI)

*(Are we adequately funding assets that have reached our intervention standards?)*

Backlog refers to those assets that have been assessed as being at or beyond optimal intervention levels (ie Renewal Dates in the past), are not currently programmed for renewal and are in addition to the current average annual funding provided by Council within the works program.

It indicates the % of cost of renewing assets, which have been assessed as being at or beyond intervention, currently located within the “Year 4” storage and yet to be programmed for renewal, relative to the average annual planned expenditure as represented in the following formula:

**% Backlog = (Cost to renew assets at or beyond intervention) / (Average annual planned renewal expenditure within the 4 year works program period “years 0 to 3”) x 100**

Desirably, the target outcome is to have <=100% backlog. This means that there should be less accumulated “overdue” works within year 4 than can normally be accommodated within a given financial year's works program.

To put backlog in context however, the backlog indicator should be considered in conjunction with the renewal demand funding indicator which considers funding over the term of the LTFMP. That is, if Council is fully funding renewal demand, a short term excess backlog of renewal demand should not be of major concern as it should be capable of being funded.

The indicator is applied at the Asset Group level and aggregated for an overview at the Portfolio level in accordance with the following table. Figures are current as at 21/03/2016.

AMP	Year 4 Backlog Renewal Value	Year 0 to 3 Av. Planned Renewal	% Backlog
Buildings	\$0	\$4,426,060	0.0%
Bushland	\$30,160	\$683,843	4.4%
Information & Communication Technology	\$0	\$742,697	0.0%
Miscellaneous Items	\$0	\$1,855,316	0.0%
Parks Infrastructure	\$638,417	\$628,495	101.6%
Plant, Vehicles & Equipment	\$0	\$257,330	0.0%
Road Infrastructure	\$437,658	\$9,547,122	4.6%
Solid Waste Management	\$278,432	\$350,431	79.5%
Sporting Facilities	\$196,944	\$1,844,655	10.7%
Stormwater Reticulation & Rivulets	\$521,546	\$571,425	91.3%
<b>Total</b>	<b>\$2,103,157</b>	<b>\$20,907,374</b>	<b>10.0%</b>

**BI = 10.0% Target BI <= 100%**

Assumptions:

- Backlog assets are positioned within Year 4 of the forecast period.
- Average funding towards renewal is based from years 0 to 3 of the program period
- Condition based intervention levels are accurately reflected by Renewal Date.
- Included assets are those with an expired Renewal Date which do not have an associated 'Master Action' planned works date listed within the 3 year program period (ie years 0 to 3)
- The indicator does not apply to assets included as a 'Grouped' asset. Renewal Dates are not reviewed for those short life assets.

The outcome of the current review of the Backlog Indicator is that Council should have little concern regarding an accumulation of overdue works that cannot be accommodated within a normal year's funded works program.

There are two portfolios that will need to manage the level of overdue works to ensure that the annual accumulation does not become an issue. These portfolios include Parks Infrastructure, with backlog at a level of 101.6% of normal annual funding, and Stormwater Reticulation & Rivulets, with backlog at a level of 92.5% of normal annual funding.

### 3.3.2 Premature Renewal Indicator (PRI)

*What value is being lost from the asset's current functional service potential as a percentage of the total programmed expenditure?*

Premature Renewal is associated with those assets that are programmed for renewal well in advance of the optimal condition based intervention level. Lost service potential is represented by the renewal value remaining on assets which will be brought forward in time as the result of service related planning decisions that override optimal renewal timing.

To achieve the ideal of fully optimised AM decision making, the desired outcome is to have zero premature renewal value which assures that the full service life potential of the assets are being consumed.

The indicator represents the value lost due to premature renewal as a ratio of the planned value of works within the 4 year programmed period (years 0 to 3).

The method of calculation is as follows:

**Premature Renewal Value = ((Renewal year–Works year)/Standard Life) x Renewal Value.**

The indicator is applied at the Asset Group level and aggregated for an overview at the Portfolio level. Portfolio level summaries for all portfolios are detailed within the following table. Figures are current as at 21/03/2016.

AMP	Premature Renewal Value	Year 0 to 3 Total Planned Renewal	% Premature
Buildings	\$9,019,989	\$17,329,216	52.1%
Bushland	\$296,408	\$2,593,260	11.4%
Information & Communication Technology	\$0	\$2,970,789	0%
Miscellaneous Items	\$1,184,690	\$7,400,521	16.0%
Parks Infrastructure	\$55,314	\$2,548,793	2.2%
Plant, Vehicles & Equipment	\$0	\$1,029,320	0%
Road Infrastructure	\$13,877,837	\$38,050,742	36.5%
Solid Waste Management	\$199,661	\$1,401,726	14.2%
Sporting Facilities	\$193,874	\$7,378,620	2.6%
Stormwater Reticulation & Rivulets	\$678,353	\$2,187,757	31.0%
<b>Total</b>	<b>\$25,506,126</b>	<b>\$82,890,744</b>	<b>30.8%</b>

**PRI = 30.8%      Target PRI = 0%**

Assumptions:

- Condition related intervention levels are accurately reflected by the Renewal Date.
- The indicator does not consider assets which are beyond intervention.
- The indicator only applies to assets incorporated within the works program (yrs 0 to 3).
- The indicator does not apply to assets included as a 'Grouped' asset. Renewal Dates are not reviewed for these short life assets.

The outcome of the current review of the Premature Renewal Indicator is the extent of lost service potential from assets within the 3 main portfolios comprising Roads, Buildings and Stormwater.

Across all portfolios, in excess of \$25.6M worth of lost service potential is resulting from assets incorporated within projects aligned with years 0 to 3 of the capital works program. As a percentage of the total value of works across the 4 years of the works program, this represents 29.5% of the program value.

The financial implications of service related intervention is an increase in depreciation and write off than would normally have resulted by extending assets within service to the optimal point of renewal.

### 3.3.3 Renewal Demand Funding Indicator (RDFI)

*Are we keeping up with renewal demand over the period of the LTFMP?*

Renewal Demand is represented as the value of work required to renew assets which have reached, or are forecast to reach, optimal intervention as designated by Renewal Dates.

The Renewal Demand Funding Indicator (RDFI) compares Renewal Demand with the funds made available by Council over the term of the LTFMP.

The indicator is more appropriately aligned at the Overarching AMP level. It can be applied at the portfolio level however, based from the proportion of the total pool of funding distributed to each portfolio.

The target is to fully fund Renewal Demand (ie RDFI = 100%)

The method of calculation is as follows:

**RDFI = Total Budget Allocation / Total Forecast Renewal Demand** (expressed as a % of annual averages)

where

Total Budget allocation over the 20 year period = \$ proportion from LTFMP **RDFI(20 year)**

Council currently fully funds renewal demand within the term of the LTFMP.

**RDFI = 100%**

### 3.3.4 Renewal Demand Growth Indicator (RDGI)

*At what rate is long term renewal demand changing over time as the result of current investment decisions?*

The Renewal Demand Growth Indicator (RDGI) is a measurement of the rate at which the Long Term Renewal Demand (LTRD) expands or contracts from one reporting period to the next.

Monitoring of growth/contraction of LTRD over time provides a reflection of Council infrastructure investment decisions and the potential positive/negative impact on generational capacity to fund replacement.

The target will be derived from Council policy directives and long term strategies aimed at controlling renewal demand growth.

The indicator compares the calculated LTRD each year against the compounding impact of annual indexation from the 2010 base year.

For each successive year beyond 2010, two values will be calculated:

1. 2010 LTRD (base year) with annual indexation applied as the reference, and
2. LTRD calculated for the current year from details contained within the asset register

Factors impacting renewal growth include:

- Acquisition (addition) or disposal (removal) of assets to/from the asset register,
- Increase or reduction of the size of existing assets,
- Upgrade or downgrade of performance requirements with the MEERA alignment, and
- Durability, Technological advancements, Cost control, Utilisation levels, Site & Environmental exposure controls, etc. which impact asset measurement, lives and renewal costs.

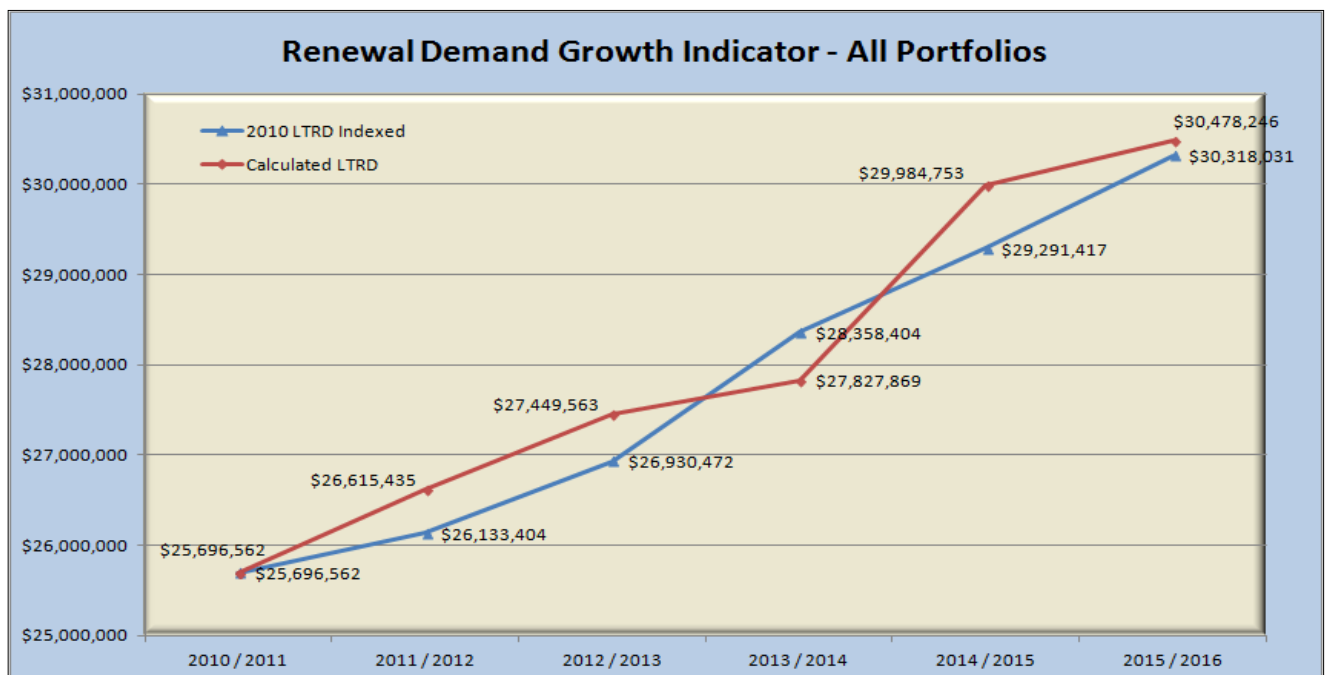
Key data attributes which result in the calculation of LTRD include:

- Asset Dimension,
- Asset Type Renewal Rate, and
- Asset Type Standard Life

Whereby LTRD is governed by the following relationship:

$$\text{LTRD} = (\text{Dimension} \times \text{Renewal Rate}) / \text{Standard Life}$$

The relative impact of network growth in relation to the indexed base year is graphed as follows.





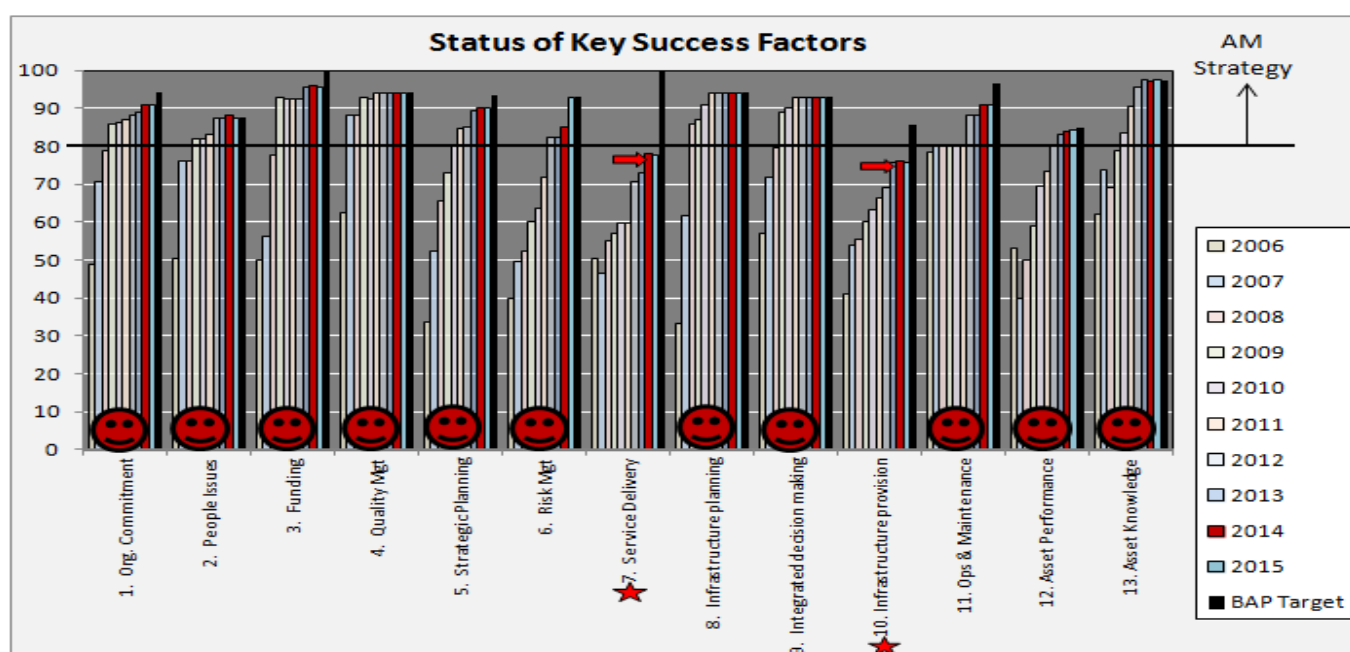
It is now apparent over the 6 year period since the 2010 base year that the reported LTRD is generally remaining consistent with indexation movements. The conclusion drawn from the trend to this point in time is that growth of the Council Asset Register is remaining low. This would suggest that the past limits on New Asset investment have been effective in restricting long term renewal growth.

Future revision of this indicator will provide a measure of the impact of Transforming Hobart capital investment on the growth of renewal demand as the result of the \$96M program.

### 3.4 We adopt Best Appropriate Practice

Council's involvement in the MAV Advanced STEP has provided the mechanism by which asset management performance is assessed against best practice standards aligned with 13 separate key success factors. These success factors were used as the basis of establishing Best Appropriate Practice (BAP) standards through the preparation of the Asset Management Strategy and were linked to the corporate measurement system for AM improvement. The goal is to ultimately achieve BAP. The 2010 to 2015 AM Strategy identifies initiatives which enable Council to achieve the "excellence" rating (80+) against all 13 key success factors.

*(Note Subsequent to the AM Strategy preparation the National Assessment Framework NAF has superseded the STEP assessment. For the purpose of measuring improvement over time against the BAP target, the STEP framework will be maintained over the duration of the AM Strategy. Improvement will be measured through a process of internal assessment and reported under this section)*



This is the final year of this assessment process with the termination of the 2010 to 2015 AM Strategy.

The graphical and tabular display of the self assessment ratings is provided against BAP targets are detailed above to illustrate progression since commencement in 2006 and relationship with BAP targets. The table below provides detail of the progress made within each success factor over the 10 year period. Progress made in 2015 was related to risk management with the identification of asset operational risks within the strategic AMP documents.

Success Factors	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	BAP Target
1. Org. Commitment	49	71	79	86	86	87	88	89	91	91	94
2. People Issues	51	76	76	82	82	83	88	88	88	88	88
3. Funding	50	56	78	93	93	93	93	96	96	96	100
4. Quality Mgt	63	88	88	93	93	94	94	94	94	94	94
5. Strategic Planning	34	53	65	73	80	85	85	89	90	90	94
6. Risk Mgt	40	50	53	60	64	72	83	83	85	93	93
7. Service Delivery	50	46	55	57	60	60	71	73	78	78	100
8. Infrastructure planning	33	62	86	87	91	94	94	94	94	94	94
9. Integrated decision making	57	72	80	89	90	93	93	93	93	93	93
10. Infrastructure provision	41	54	56	60	63	66	69	76	76	76	86
11. Ops & Maintenance	78	80	80	80	80	80	88	88	91	91	97
12. Asset Performance	53	40	50	59	70	74	80	83	84	84	85
13. Asset Knowledge	62	74	69	79	84	90	96	97	97	97	97
% of BAP (Corporate Meas)	54%	68%	75%	82%	85%	88%	92%	94%	95%	96%	

At termination of the Asset Management Strategy 2010 to 2015, Council has progressed to 96% of the established target, meeting the ideal BAP target values in 6 of the 13 success factors and 5 of the remaining factors exceeding the strategic target score of 80%.

Two success factors, marked above, have not met the strategic target of 80%.

Key success factor “7 Service Delivery” and “10 Infrastructure Provision” have progressed with the production of trial service delivery plan summaries which, in the trial format, provide asset management with rudimentary service level requirements and service demand predictions.

Service planning is a new concept under development by the Municipal Association of Victoria and is being promoted within Councils associated with the STEP program.

Council references service planning objectives under 5.3 of the Strategic Plan 2015 – 2025 “Quality services are delivered in a safe, cost effective and efficient way”.

The scheduled review of the AM Strategy within the 2015/16 financial year will establish revised BAP targets for monitoring within future versions of this AMP document.

# 4 ASSET RISK MANAGEMENT

## 4.1 Factors Influencing Risk

Risk management is a critical element of advanced asset management practice that identifies, evaluates and, where possible, controls/mitigates the likelihood and/or consequence of events which impact the performance of assets to deliver services in a safe and effective manner.

Risk factors can be categorised as follows:

- Natural events: Such as extreme wind or rain storms, floods, fires, storm surges, etc.
- External organisational impacts: Dependence of Council on other organisations for the provision of goods or services (eg supplier goes out of business) or changes to legislation (eg change to building compliance requirements).
- External physical impacts. Where assets fail due to physical impacts eg deterioration, vandalism, other damage.
- Changes to service levels. For example, if an asset has to perform to a higher level it may undergo greater wear and tear than originally envisaged, needing greater maintenance and/or achieving a shorter life.



## 4.2 Risk Management

Council's corporate risk framework incorporates the following key documents:

**Risk Management Policy** – Establishes commitment and provides a high level overview of risk management framework;

**Risk Management Strategy** – Details the risk management framework processes and activities;

**Risk Registers** – Documents the key risks and controls for Council activities and processes;

**STG-F-1401/2 Unit Plan and STG-P-1102 Improvement Opportunity** – Together these document strategies to treat risks with levels that are higher than acceptable risk appetite.

Section 3.4 of the sub-ordinate Strategic AMP documents provides an overview and summary information of asset operational risks. The section is partitioned under three main headings:

### 4.2.1 Risk Register

Subordinate Strategic AMP documents provide detail of asset operational risks that could impact the ability of assets in portfolios to deliver service or required level of service.

Appendix B of each of the subordinate Strategic AMP documents incorporate full detail of the risk analysis undertaken by relevant officers associated with the management of services and assets within each of the 3 portfolio areas.

#### 4.2.2 High & Extreme Residual Risks

This heading provides a snapshot of all risks with a residual risk rating of High or Extreme from relevant risk register entries.

The following table provides a summary of the High and Extreme risks drawn from Table 3.4.3 of the respective subordinate AMP document.

Portfolio	Residual Risk Rating	Risk event	Cause
Road Infrastructure	H	Annual value of expenditure forecasts varied as the result of suboptimal decision making.	<ul style="list-style-type: none"> <li>* Inadequate data to support lifecycle analysis and ODM</li> <li>* Lifecycle analysis not conducted.</li> <li>* AMS does not support ODM analysis</li> </ul>
	H	Landslips / Rock falls	<ul style="list-style-type: none"> <li>* Burst water main</li> <li>* Wildfire killing vegetation</li> <li>* Inappropriate design</li> <li>* Drainage failure</li> <li>* Vegetation overgrowth/lack of vegetation control</li> <li>* Lack of maintenance</li> <li>* Environmental factors (ground water seepage, moisture all year round, etc)</li> <li>* Ad hoc monitoring</li> </ul>
	H	Floods / Water main bursts / sewer overflows / storm surges	<ul style="list-style-type: none"> <li>* Water over road</li> <li>* Flood debris</li> <li>* Under-capacity drainage</li> <li>* Stormwater in sewer</li> <li>* Trees down</li> </ul>
	H	Verge Damage	<ul style="list-style-type: none"> <li>* Accumulation of metal dust, debris &amp; vegetation</li> <li>* Inappropriately located trees (partially self-seeded)</li> <li>* Lack of weeding</li> <li>* Lack of footpaths, pedestrians walking on verges</li> <li>* Cyclists using verges</li> <li>* Lack of clarity about ownership, ownership transfer without budget allocation</li> <li>* Not identified as assets, not condition assessed</li> <li>* Significantly increased planning required and costs due to changing standards</li> <li>* "Green" roads on Statutory Highway Plan = Council not responsible</li> </ul>
	E	Inadequate maintenance or inspection regime'	<ul style="list-style-type: none"> <li>* Inadequate resourcing</li> <li>* Inadequate direction (BPM's, service levels)</li> </ul>
	E	Street lighting, Light poles, Banner poles, Security poles	<ul style="list-style-type: none"> <li>* Currently not fully managing them</li> <li>* Lack of clarity about who manages them</li> <li>* Vandalism</li> <li>* General electrical failure</li> <li>* Crashes</li> <li>* Other assets interfering with light reaching ground (signs, trees, ..)</li> <li>* Timber light poles (early failures, fire)</li> <li>* Bushfires</li> <li>* Lack of clarity about ownership</li> <li>* 100's of council-owned lights with unknown location, condition, renewal requirements and compliance</li> <li>* Use of poles for purposes they are not designed for (carrying capacity, flags, banners, Xmas decorations,</li> </ul>

			<ul style="list-style-type: none"> <li>cabling for events)</li> <li>* Unknown power supply, underground infrastructure associated with poles</li> <li>* Record keeping requirements probably incomplete (issue of legal cases)</li> <li>* Difficulty getting info about assets from TasNetworks.</li> </ul>
	H	Guard rails, Guide posts, Bollards, Barrier fences and Hand rails	<ul style="list-style-type: none"> <li>* Failing to meet current standards (length, etc.), eg. Pinnacle Road</li> <li>* Mostly not designed for all road users, often more visual barriers rather than protective</li> <li>* No active renewal program</li> <li>* Locations often inappropriate</li> <li>* Locations that should have guard rails don't have any</li> <li>* Standards for low speed environment may not be fully understood</li> <li>* Very low data confidence (completeness, accuracy, type, location, ...)</li> <li>* Failure to inspect/maintain for effectiveness (eg. reflectivity)</li> <li>* Topography etc. may result in inability to put in compliant structures</li> </ul>
Buildings	H	Poor understanding of the impacts of climate change on the life cycle management of the assets.	<ul style="list-style-type: none"> <li>* Lack of research on the local impacts of climate change.</li> <li>* Lack of modelling of current data/information as to the potential impact on Council assets</li> </ul>
	H	No Power * failure in external supply of power * failure in internal distribution	<ul style="list-style-type: none"> <li>* Power outage</li> <li>* Distribution board failure (board, component of board)</li> <li>* Water ingress</li> <li>* Vermin</li> <li>* Unintentional demand</li> <li>* Fire (overheating)</li> <li>* Mechanical damage</li> <li>* Ventilation failure</li> <li>* Vandalism</li> </ul>
	H	Failure of Water Supply * external supply (domestic water and fire) * internal distribution	<ul style="list-style-type: none"> <li>* TasWater issues (mains break, environmental contamination, loss of reservoirs/storage)</li> <li>* Pipe burst</li> <li>* Pipe blockage</li> <li>* Internal error (accidental disconnection, valve shut off)</li> <li>* TasWater shutting off supply when failure of backflow prevention valves</li> </ul>
	H	Flooding * inside	<ul style="list-style-type: none"> <li>* Reticulation pipes failure</li> <li>* Hot water cylinder failure</li> <li>* Fire mains fail</li> <li>* Header tanks fail</li> <li>* Taps left running</li> <li>* Effluent blockage</li> <li>* Blocked downpipes</li> <li>* Blocked gutters</li> </ul>
	E	Service standards are not acknowledged, documented and applied.	<ul style="list-style-type: none"> <li>* Service custodian not nominated</li> <li>* Service requirements not defined or fully considered over the asset's lifecycle.</li> <li>* Service requirements not documented and measured.</li> <li>* Service requirements not acknowledged by key stakeholders.</li> <li>* Performance indicators not established and monitored.</li> </ul>
Stormwater	H	Trees	<ul style="list-style-type: none"> <li>• Intrusion of roots</li> <li>• Location appropriateness, no control over this, lack of coordination</li> <li>• Heritage status</li> <li>* Species appropriateness</li> <li>* Tree planting programs increasing</li> </ul>

			* Drainage network acts as underground irrigation and attracts tree roots
	E	Extreme Weather / Climate Floods / Water main Bursts / Sewer Overflows	<ul style="list-style-type: none"> <li>• Under-capacity, upstream developments,</li> <li>• Stormwater into sewer</li> <li>• Root intrusion in pipes</li> <li>• Root impact on creeks</li> <li>• Silt build up</li> <li>• Unplanned bursts / reservoir discharges / scours</li> <li>* Extreme events</li> <li>* Ageing assets</li> <li>* Construction quality</li> <li>* Some building materials substandard quality</li> <li>* Lack of maintenance</li> <li>* Causes controlled by other authorities</li> <li>* Insufficient assets</li> <li>• Flood</li> <li>• Wind, Trees</li> <li>• Fire</li> <li>• Sea Level Rise</li> <li>• Storm surge</li> </ul>
	E	Inadequate Maintenance or Inspection Regime	<ul style="list-style-type: none"> <li>• Insufficient resourcing</li> <li>• Not inspecting unknown assets</li> <li>• No planned maintenance regime, except GPTs</li> <li>• Existing equipment not always appropriate</li> <li>• \$s insufficient</li> <li>• Service levels for table drains not defined</li> <li>• Service level definition</li> </ul>
	E	Other Service Providers (TasWater, Telstra, NBN, Gas) & Developers	<ul style="list-style-type: none"> <li>• Gas line intrusions</li> <li>• Illegal connections (sewer into SW)</li> <li>• Reservoir &amp; water main and scouring / discharge (planned &amp; notified)</li> <li>• Building over assets (private developments, a lot), Fence posts / star pickets</li> <li>• Lack of reinstatements to standard</li> <li>• Insufficient cover</li> <li>• Lack of compaction</li> <li>• Differential compaction</li> <li>• Sub-contractors – poor standard of work</li> <li>• Sewer pump station overflows, sewer manhole overflows</li> <li>• Insufficient coordination (high level) with other authorities</li> <li>* Not as community focused, mostly concerned with provision of utility service only.</li> </ul>

### 4.2.3 Critical Assets

This heading provides a list of all assets that are considered critical.

Critical Assets are defined in the AM Glossary (CBC / AM / AM Planning) as:

*“Asset for which the consequences of failure to deliver its required function or service are significant in the context of the relevant Asset Manager’s Asset Portfolio”*

A brief summary of the analysis undertaken to this point in time is as follows:

Asset Portfolio	Critical Assets – Review Summary
Buildings	Criticality Framework in development. General discussion only.
Bushland Infrastructure	Critical asset groups provided. Fire Trails considered most critical.
ICT	Core elements addressed under other corporate programs.
Miscellaneous Items	Valuation Roll only. Otherwise not addressed in this portfolio.
Parks Infrastructure	No critical assets.
Plant, Vehicles & Equipment	No critical assets.
Road Infrastructure	Criticality Framework to be developed. No assets yet identified.

Solid Waste Management	Critical asset groups provided.
Sporting Facilities	No critical assets.
Stormwater & Rivulets	Desk top criticality analysis completed. Network map provided ranking 25% High and 7% Very High criticality.

### 4.3 Asset Risk Management Framework

During 2013 CoH developed an Asset Risk Management Framework with the objectives of:

- Incorporating explicit consideration of risk appropriately into all decision-making, and
- Supporting works prioritisation across asset portfolios for:
  - Maintenance
  - Capital expenditure (renewal, upgrade & new)
  - Infrastructure planning

The Asset RM Framework has been developed in line with the following guiding principles.

- Maximum risk reduction for funds spent. ie The benefits of risk mitigation are the risk costs that are avoided less the costs to reduce the risk.
- Effective decision making using a single value indicator combining other measures in a coherent way
- Type and level of detail of risk assessment is appropriate to the risk level
  - Criticality hierarchies & broad classifications
  - Individual assessment
  - Detailed analysis
- Credible risk scenarios used
- Failure modes identified
- Documented methodology in place to guide decision making
- Keeping it simple yet meaningful

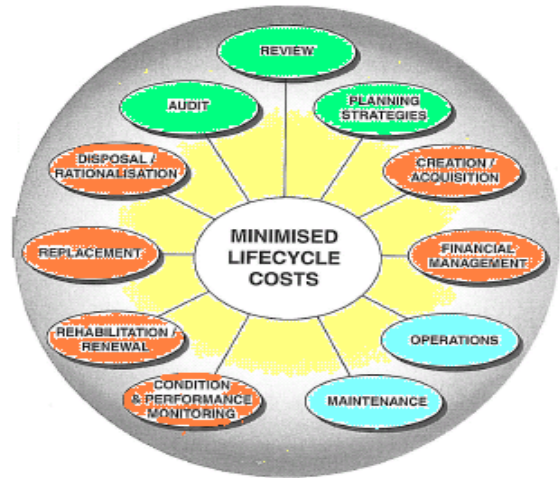
The framework was applied to 15% of the capital works program for 2015/16 financial year to further promote the methodology and establish practical examples of consequence assessments for inclusion into the matrix for future reference.

# 5 LIFE CYCLE MANAGEMENT PLAN

The International Infrastructure Management Manual (IIMM) defines the lifecycle of an asset as:

*“The time interval that commences with the identification of the need for an asset and terminates with the decommissioning of the asset or any liabilities thereafter.”*

Lifecycle asset management means considering all management options and strategies as part of the asset lifecycle, from planning to disposal. The objective is to look at the lowest long-term cost (rather than short-term savings) when making asset management decisions.



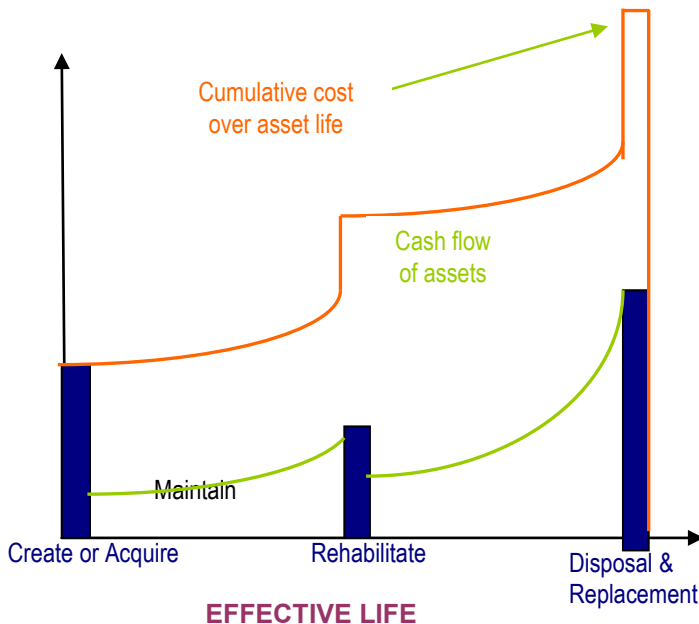
## 5.1 Lifecycle Expenditure Categories

The costs associated with the lifecycle phases of an asset can be aligned with one of the following expenditure categories:

- **Recurrent Expenditure:** Includes all small (immaterial) expenditure and expenditure associated with operation and maintenance activities which are periodically required to ensure that the asset achieves its useful life and provides the required level of service.
- **Capital Expenditure:** Includes relatively large (material) expenditure, which has benefits expected to last for more than 2 years and which include new; renewal; expansion; and upgrade work activities.

The following diagram depicts the cost accumulation of an asset over its lifecycle attributed to the various recurrent and capital expenditure activities undertaken.

Three main elements contribute to an asset’s lifecycle cost and, where options exist to enable service provision, all need to be assessed to determine which asset option will provide the least cost outcome to Council.



**Refer Section 5.3 Maintenance / Operations:** Includes recurrent expenditure activities which include planned (proactive) and unplanned (reactive) maintenance. Also includes operating activities which are continuously required (fuel, power etc) to enable the asset to provide the service function. This form of expenditure is driven by a commitment to preserve the existing register of infrastructure and meet service obligations.

**Refer Section 5.4 Renewal / Disposal:** Comprises capital expenditure programs to renew (replace or rehabilitate) existing assets during the lifecycle phases until final disposal (demolish and remove) or sale when the service function is no longer required and the assets are decommissioned. This form of expenditure may include inherent upgrade or downgrade of the existing asset. This is generally undertaken with a modern equivalent asset, driven by a commitment to meet current service or regulatory standards which are now different from that enforced originally.

**Refer Section 5.5 Creation / Upgrade:** Comprises capital expenditure programs which establish new assets which did not exist previously. This also includes the upgrade of existing assets to a standard over and above the modern equivalent standard. Both are referred to as “discretionary” works, as this form of activity expands the infrastructure network. This is generally undertaken in response to a particular decision of Council to deliver a higher level of service than that provided by existing infrastructure. If not adequately catered for



within capital expenditure forecasts, this form of expenditure may draw from allocations earmarked within the forecast period for the renewal of existing infrastructure. Discretionary works also generate higher demands on future recurrent expenditure. This outcome will distort Council's financial sustainability if not fully analysed for consequential impacts.

## 5.2 Asset Register and Asset Hierarchy

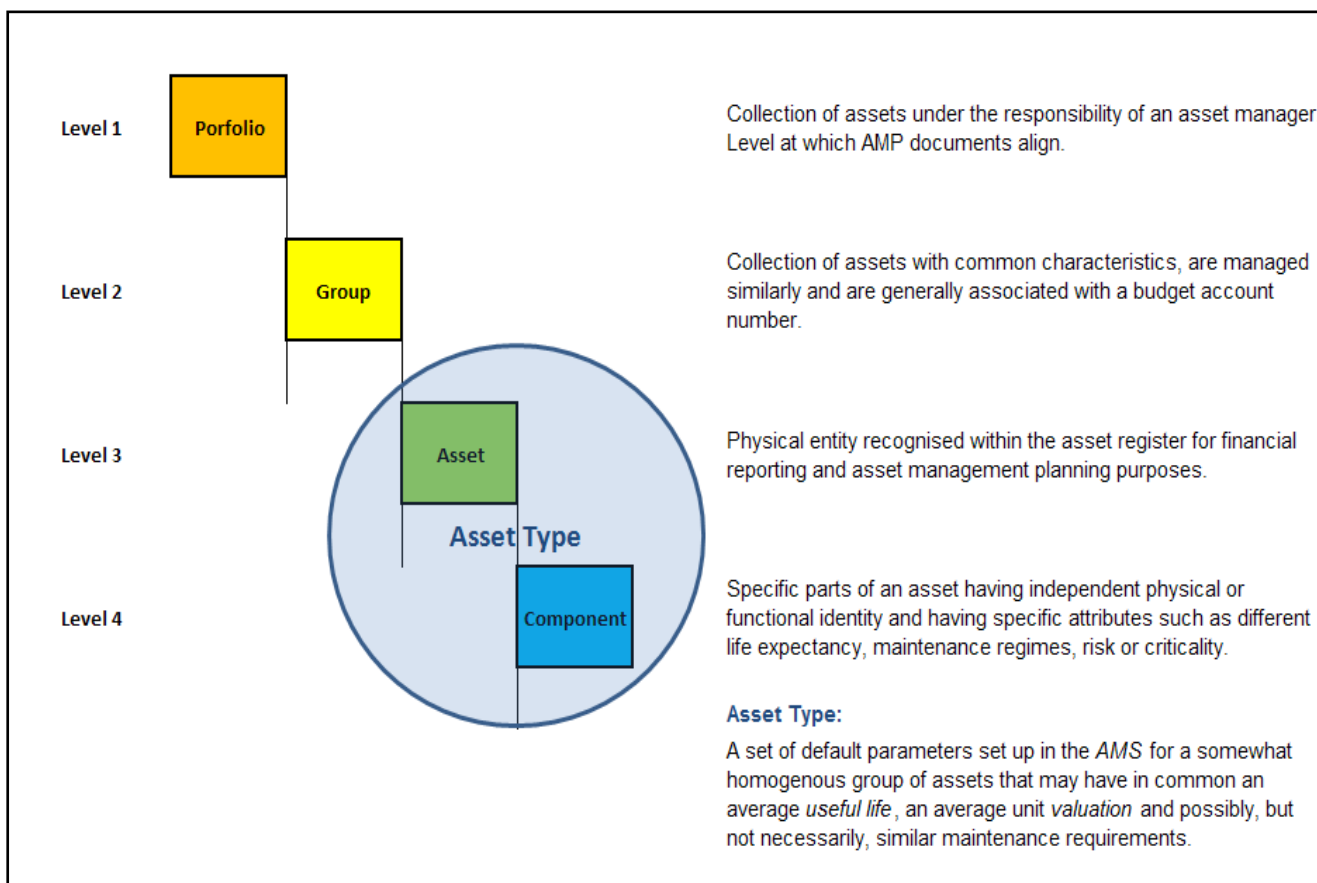
An overview of Council's asset register is provided within the front cover inset of this plan.

The renewal value of the registered assets, reflected by the replacement with modern equivalent assets, totals in excess of \$1.8B as at December 2015. There are approximately 61,700 "Valuation Assets" listed on the asset register which satisfy recognition requirements for financial reporting purposes.

In addition, "Operational Assets" are included within the Conquest AMS which are not financially recognised and cannot be capitalised, but which do draw from recurrent expenditure. These include asset types such as trees, garden beds, grassed areas, landscaping and temporary structures.

The hierarchical structure used to manage assets within the AMS is described below.

The capability of the AMS to represent assets as a collection of components (Level 4) and then sub-components (Level 5+) is unlimited. This system feature provides asset managers with the ability to effectively represent complex assets comprising a wide variety of component elements with differing lives, values and renewal / maintenance requirements.



Levels 3 and 4 of the hierarchy are represented by asset types. Each asset is aligned to an asset type and the corresponding standard life and unit replacement rate. This association provides the framework from which financial reporting and renewal forecasting can be generated and reported at any level within the hierarchy.

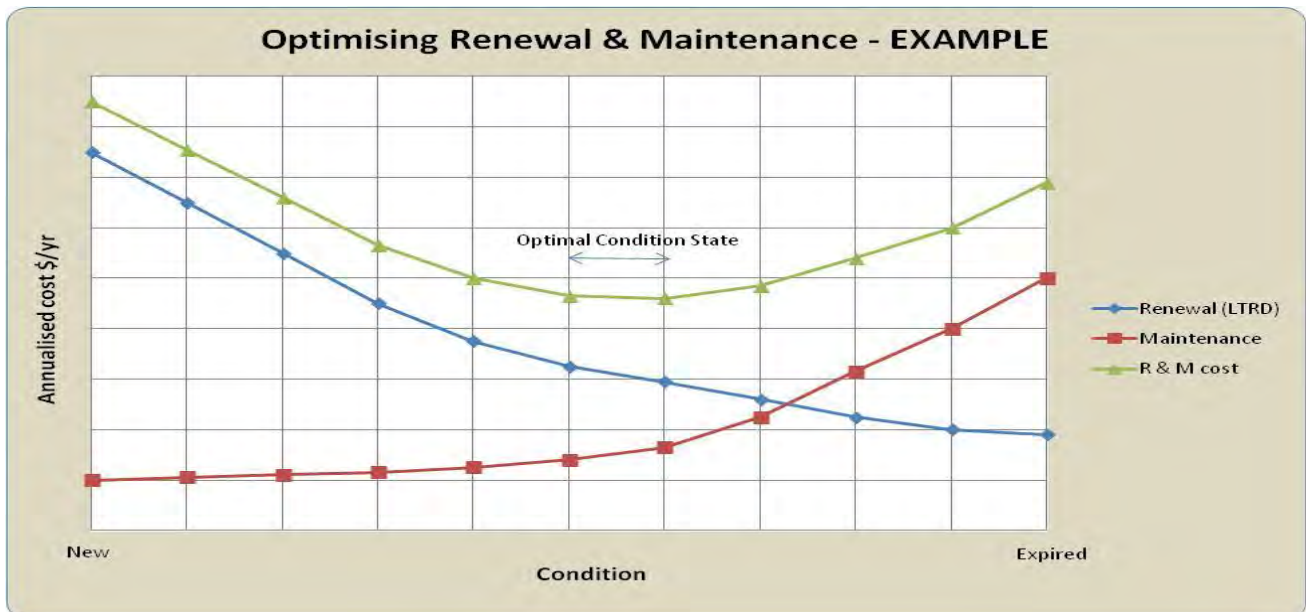
The flexibility of the system is unlimited but provides a challenge for asset managers to balance the benefits of accessing detailed information relating to assets with the capacity of the organisation to resource the collection, storage and ongoing upkeep of this information.

## 5.3 Maintenance / Operations Plan

Maintenance and operations management planning is the process of ensuring that all actions necessary are undertaken to enable assets to provide the required level of service and reach their useful lives. These actions do not increase the service or life potential of the asset.

As detailed in the graph below, the process of optimisation strikes the right point in the asset's life where the cost of renewal and maintenance provides the organisation with the best possible timing of renewal works to achieve the ideal of minimising lifecycle costs. This point may be prior to a condition state corresponding with an asset which can no longer remain in service (ie the asset has expired).

Unless dictated by service levels relating to the "Functionality", "Capacity" and "Quality" requirement of the asset (refer to Section 3.2.1), renewal decision making should be governed by the optimal condition state.



The task of forecasting O&M expenditure requires asset managers to have a clear understanding of the relationship between the cost of maintenance with respect to asset condition. Typically, higher maintenance expenditure is associated with ageing infrastructure coupled with the expansion of the network through the addition/upgrade of assets.

Maintenance forecasting involves the application of the above relationship to interpret maintenance costs with the changing condition of assets over the term of the forecast period.

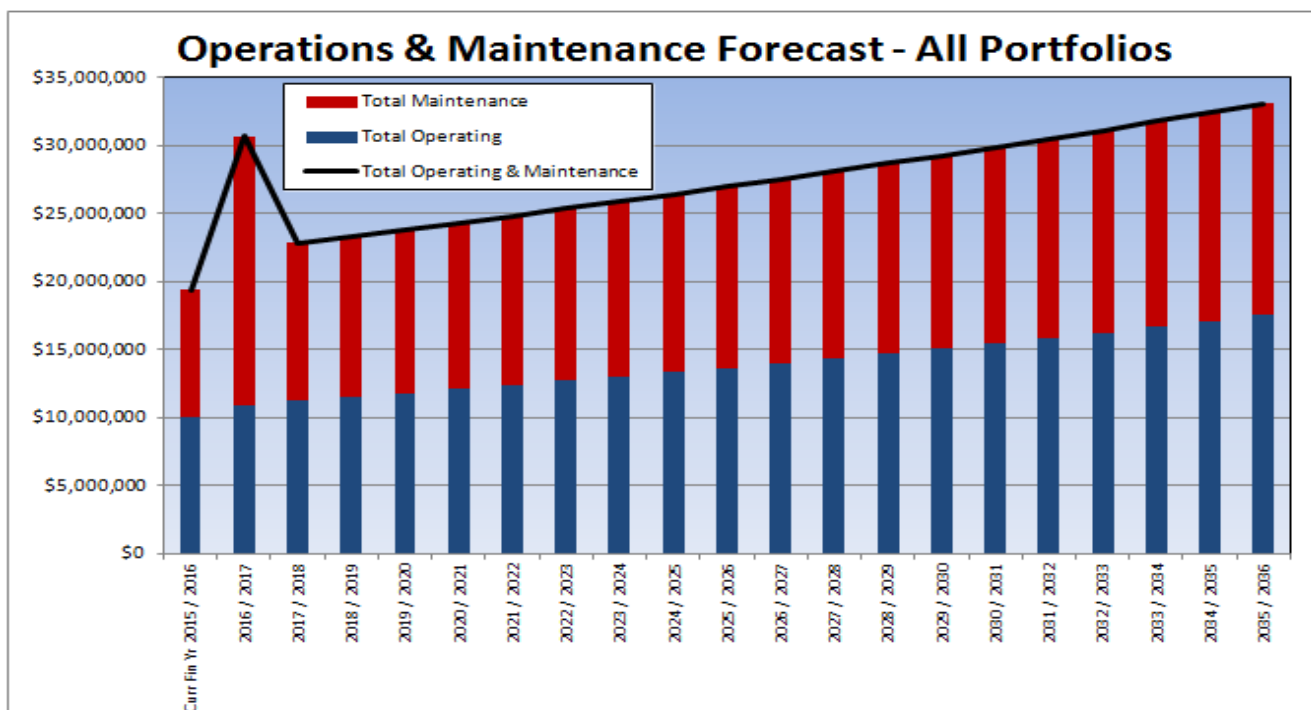
It has not been possible to determine the optimised cost relationship to date due to the lack of actual O&M cost data held at the asset level.

However, this is currently being addressed within some of the main portfolios which should result in improved forecasts within future years.

The current 20 year maintenance / operational forecasts split against all portfolios are graphed below. This forecast is indicative only and is not linked to the LTFMP.

When interpreting the graph, the following assumptions and limitations apply:

- Amounts aligned with the current 2015/2016 financial year are generally drawn from budget allocations. This does not necessarily represent the required level to fully fund O&M demand and could be understated.
- O&M forecasts were not provided by all portfolios. Missing from the data is information aligned with PVE, Misc. Items, ICT and Stormwater Infrastructure.
- The spike in 2016/2017 is primarily associated with the maintenance backlog of approximately \$10M identified within the Roads portfolio. An annual increase in O&M requirements of \$1.7M is built into the Roads portfolio forecast from year 2 onwards to account for the possible level of funding required to meet current Asset Register O&M demand going forward.
- Forecasts provided by the Open Space series of asset portfolios include an allowance for indexation which results in the steady increase in O&M from 2016/2017 onwards.
- Forecasts from some portfolios include service operational costs which have not been isolated from asset operation costs.
- Forecasts do not include allowance for new infrastructure and the O&M impact of the Transforming Hobart investment of \$96M during the first 10 years of the forecast period.



## 5.4 Consolidated Capital Works Plan

The consolidated capital works plan comprises all capital related expenditure requirements over the forecast period which incorporates:

Asset renewal:- the like for like replacement or rehabilitation of existing assets,

Upgrade/downgrade:- the alteration or extension of existing assets to accommodate adjusted service level requirements,

New:- the acquisition or creation of assets not previously recorded on the Council's Asset Register, and

Disposal:- cost or income resulting from the demolition or sale of assets no longer required for the delivery of Council services.

Forecasts and works programs are based on the best current information, forecasting methodologies and systems currently available to Council officers.

Renewal forecast requirements presented in this plan do not apply optimised decision making through lifecycle cost analysis or outputs from service delivery planning which would be characteristic of more advanced asset management practices.

Where information is not currently available, assumptions have been applied to enable the generation of forecasts. Refer to Section 2.2 for further detail.

Renewal dates are in place against all assets based on current condition assessments, field inspections or through the application of the standard life to the creation date of the asset. A variety of forecast methods have been undertaken using available information and modelling software. Refer to Section 2.2 for detail.

Council officers have undertaken preliminary analysis of factors which may impact capital forecasts and have quantified the likelihood and consequence of occurrence as an annualised risk (annual variance potential) for identification of the variance limits of the forecast should they occur. Refer to Section 2.4 for detail.

ELT has considered discretionary work proposals, which incorporate discretionary elements valued >\$20,000, and approved projects for inclusion within the forward work program commencing 2016/17 financial year.

The consolidated capital works plan comprises three parts, namely:

- ➔ 4 year consolidated works program – Years 1 to 3 incorporating projects within the 3 year planning horizon with either a detailed or planning estimate depending on the extent of initial planning and scoping that has been undertaken. Year 4 of the program period contains projects and renewal demand that have been confirmed as being required but are held in storage awaiting inclusion into the 3 year works program planning period based on priority ranking against future available resource/funding allocations.
- ➔ 20 year capital forecast – Years 5 to 20 expenditure profiles based from projects or asset/service manager established renewal/service dates contained within the Conquest AMS. Forecasts apply the default MEERA renewal rates listed within the AMS for the calculation of expenditure requirements.

Overdue (or backlog) renewal, which cannot be included within the Year 1 to 3 works program, are located in year 4 of the forecast period.

- 100 year funding profile –Years 21 to 100 expenditure profile derived from system generated renewal dates within the AMS which have been established via modelling or by adding asset type standard lives to asset creation dates as the default value. Allowance for repeated expenditure occurrence over the 100 year period of short to medium life assets at their standard life frequency is included within the forecast.

### 5.4.1 Consolidated Capital Works Program

The objective of the works program is to provide Council with a high level of certainty in relation to capital expenditure projects over the short term and enable resource allocations to be established and managed to accommodate the work flow through the various stages of project planning.

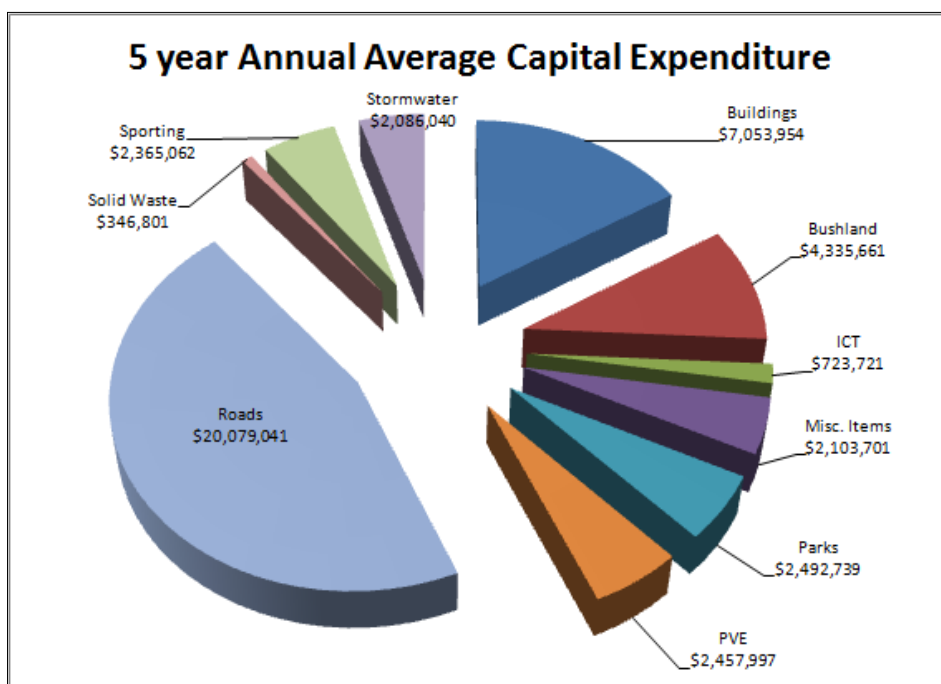
The expectation is for project clients to have in place a costed and detailed list of works for year 1 of the program period with allowance for less certainty as the program extends to year 3. Works must be represented as a Master Action within the Conquest AMS to generate a capital expenditure request.

Master Actions provide the estimated cost of a project, which may comprise a number of child actions where multiple assets are included in the scope of works. Child actions describe the nature of work being undertaken on each asset whether renewal, new, upgrade or expensed and include an estimate to undertake associated works. Logically, the sum of the child action estimates should equal the project amount.

Master Actions also include a funding plan which enables identification of the funding requirements in nominated years to complete the project. Funding plans provide the capacity to source funding either side of the construction year to address the need for preliminary investigations, reserving of large funding requirements or repaying loans post works completion.

Funding plans form the basis of funding requests throughout the program period, and can incorporate allowance for external funding sources, such as grants, to offset elements of the total expenditure requirements from Council sources.

The pie chart below details the distribution of funding associated with the annual average of the next 5 year capital expenditure requests incorporating the 10 asset portfolios.



Projects included within the consolidated works program are driven from sources throughout Council which include:

- Renewal projects primarily derived from asset management planning,
- New / Upgrade projects driven by service custodian clients as drawn from Master Plans, Strategies or Council reporting, and
- New / Upgrade projects driven by the Council in conjunction with the Executive Leadership Team.

The result of the Major Projects initiative (referred to as “Transforming Hobart”) has added considerable demand for project work over the foreseeable future with respect to previous year’s reporting. Most of this

work is aligned with New / Upgrade expenditure, with some major projects also incorporating the premature renewal of some assets to complement project scope requirements.

Forecast project and renewal funding requirements, as aligned with asset portfolios over the 5 year period commencing 2016/17, are tabled as follows:

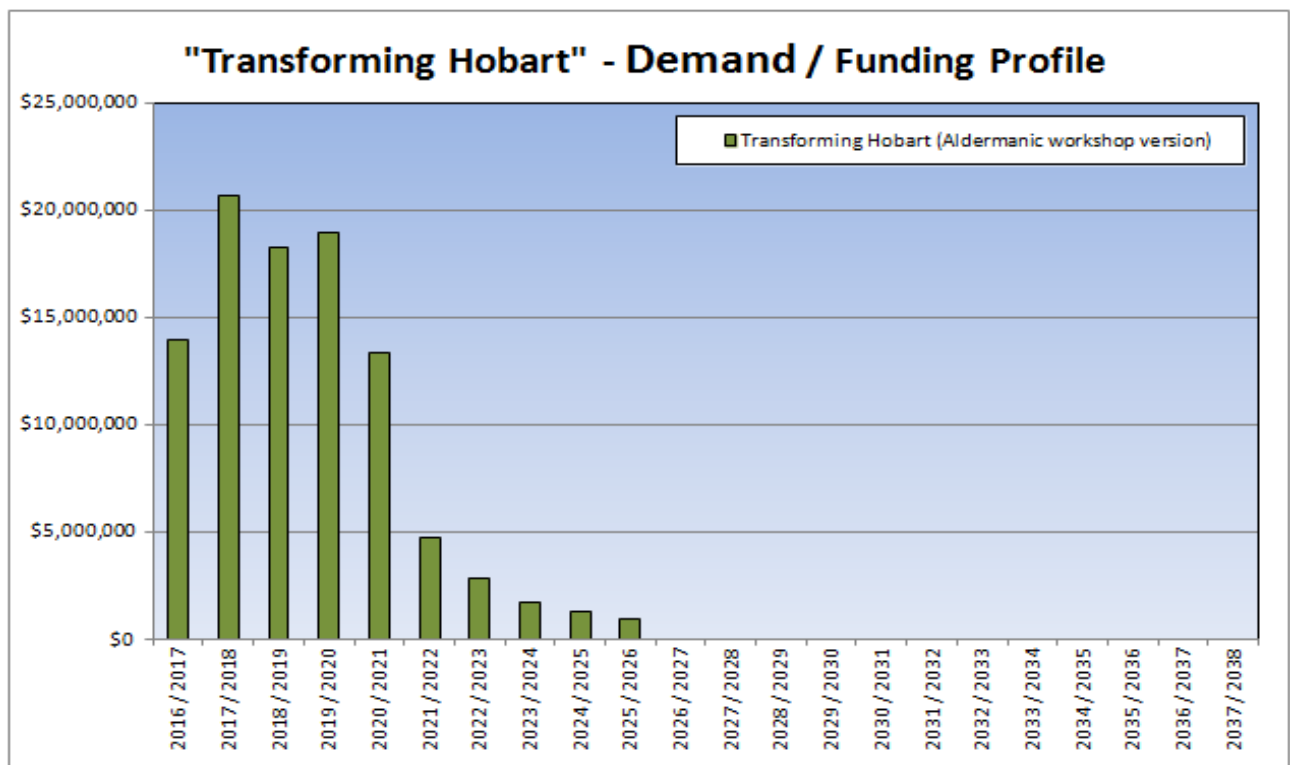
	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
<b>Transforming Hobart (Aldermanic workshop version)</b>	\$14,002,472	\$20,645,000	\$18,290,000	\$18,975,000	\$13,325,000
<b>Renewing Hobart - Funding Profile (Aldermanic workshop version)</b>	\$21,140,948	\$20,609,673	\$19,902,427	\$20,226,354	\$20,226,354
<b>Total \$</b>	<b>\$35,143,420</b>	<b>\$41,254,673</b>	<b>\$38,192,427</b>	<b>\$39,201,354</b>	<b>\$33,551,354</b>
<b>Renewal Component</b>	\$16,697,697	\$12,283,368	\$13,340,594	\$11,661,721	\$13,390,928
<b>Upgrade/Expansion Component</b>	\$2,768,372	\$5,179,967	\$3,190,500	\$5,544,036	\$5,845,004
<b>New Asset Component</b>	\$14,941,022	\$23,347,280	\$21,311,026	\$21,515,737	\$13,677,751
<b>Expensed Component</b>	\$736,330	\$444,059	\$350,309	\$479,860	\$637,671

As can be seen, the amounts have increased two fold from typical annual levels of programmed expenditure as represented by the Renewing Hobart funding profile.

The “Transforming Hobart” increases are primarily attributed to the following service driven initiatives within Council with corresponding 10 year funding requirements:

- Inner City Action Plan \$30,539,000
  - Local Retail Precinct Upgrades \$12,510,000
  - Public Toilet Strategy 2015 – 2025 \$ 9,415,000
  - Wellington Park – One Mountain \$ 4,282,800
  - Queen’s Domain Program \$ 5,923,874
  - Other Transforming Hobart Projects \$34,091,798
- Total 10 year funding \$96,762,472

The distribution of the Transforming Hobart projects as shown as follows:



The implications of these programs are to substantially increase the level of new / upgrade and premature renewal works above that traditionally experienced. This will have consequential impacts on future renewal demand, O&M, depreciation and asset write-off. At the time of preparation of this overarching document, the level of impact had not been calculated due to insufficient levels of scoping and asset detailing incorporated within these projects at this point in time.

The “Renewing Hobart” funding profile is derived from asset renewal demand as drawn from the 10 portfolios.

Funding renewal demand in accordance with the ‘ideal’ timing as established by the renewal date is not always possible. This means that some level of smoothing may be required to level out the troughs and peaks that are characteristic of a renewal demand expenditure profile.

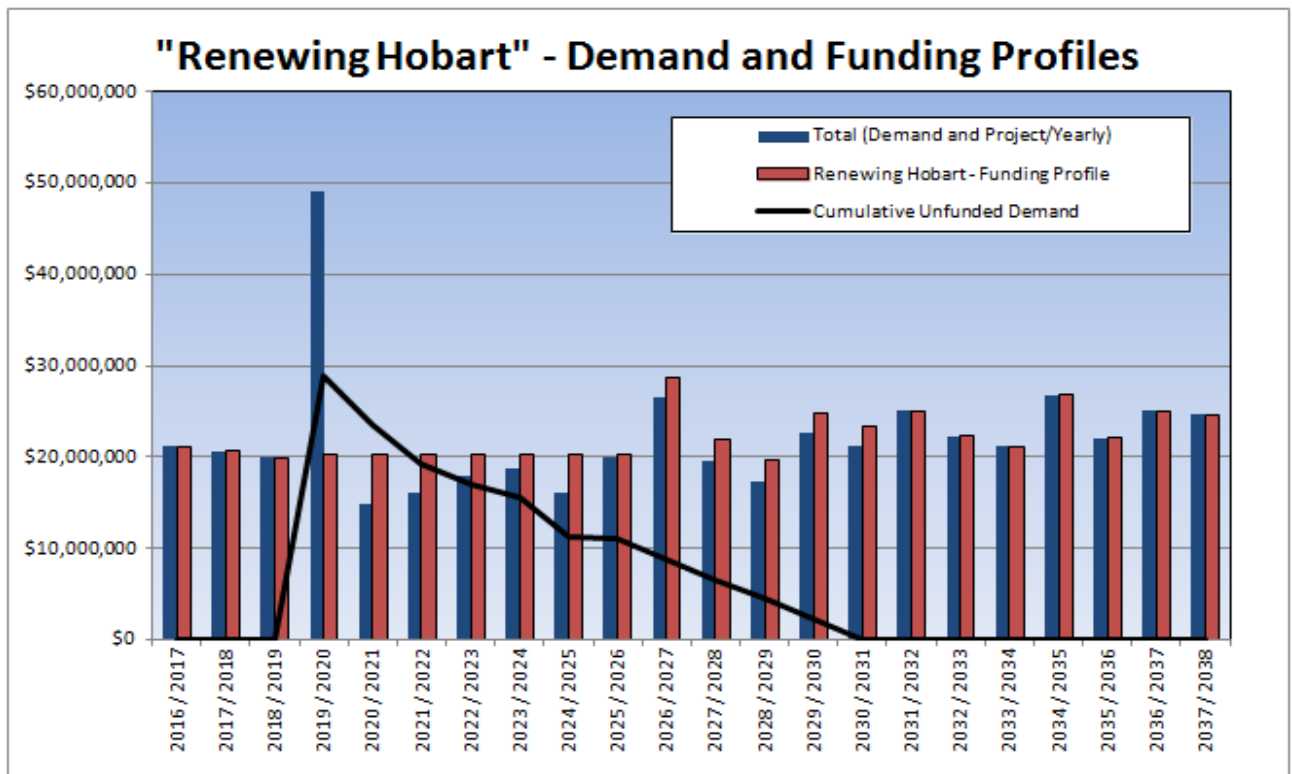
Under the planning system that has been adopted, renewal demand that cannot be accommodated within the 3 year project planning period is stored within year 4 of the 20 year forecast.

Under this methodology, renewal demand may be converted into renewal backlog but, as long as this backlog is risk managed, assets can be extended beyond their optimum point of renewal with increased O&M funding requirements to keep them in service.

The following graph illustrates the relationship between renewal demand and the funding profile to be adopted by Council to address this demand over the 20 year forecast period.

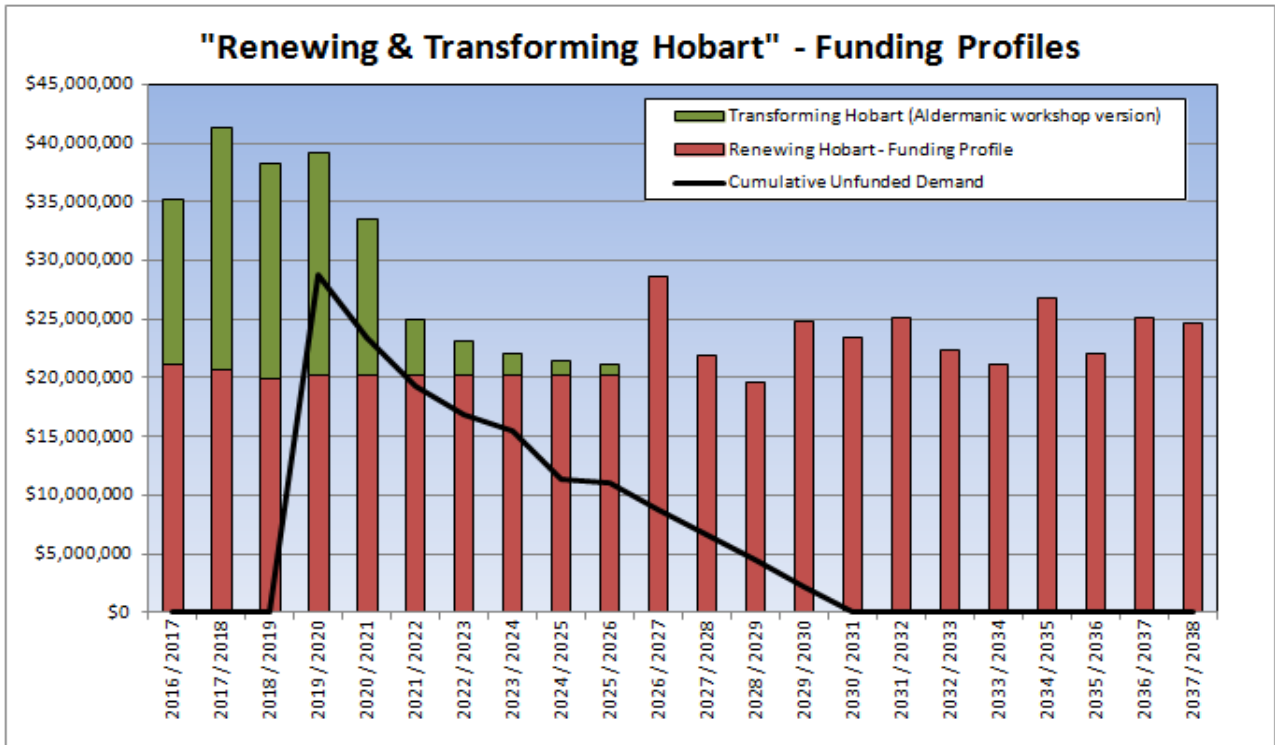
The chart includes the cumulative unfunded demand curve which depicts the consumption of the year 4 storage over a number of years. Under this scenario, accumulated demand has been fully funded by the financial year 2030/2031.

Over the term of the 20 year LTFMP, renewal demand is fully funded.



The objective of the funding plan adopted by Council is to restrict total expenditure over the next 10 year period to \$300M which represents an average expenditure of \$30M/year over this period. To achieve this, funding of renewal demand will be set at \$20.2M annually (indexed) from years 4 through to 10. Over this period, the year 4 backlog of renewal can be largely reduced as funding exceeds projected annual renewal demand within the ensuing years.

The combined funding plan which incorporates “Transforming Hobart” and “Renewing Hobart” is illustrated in the following chart.



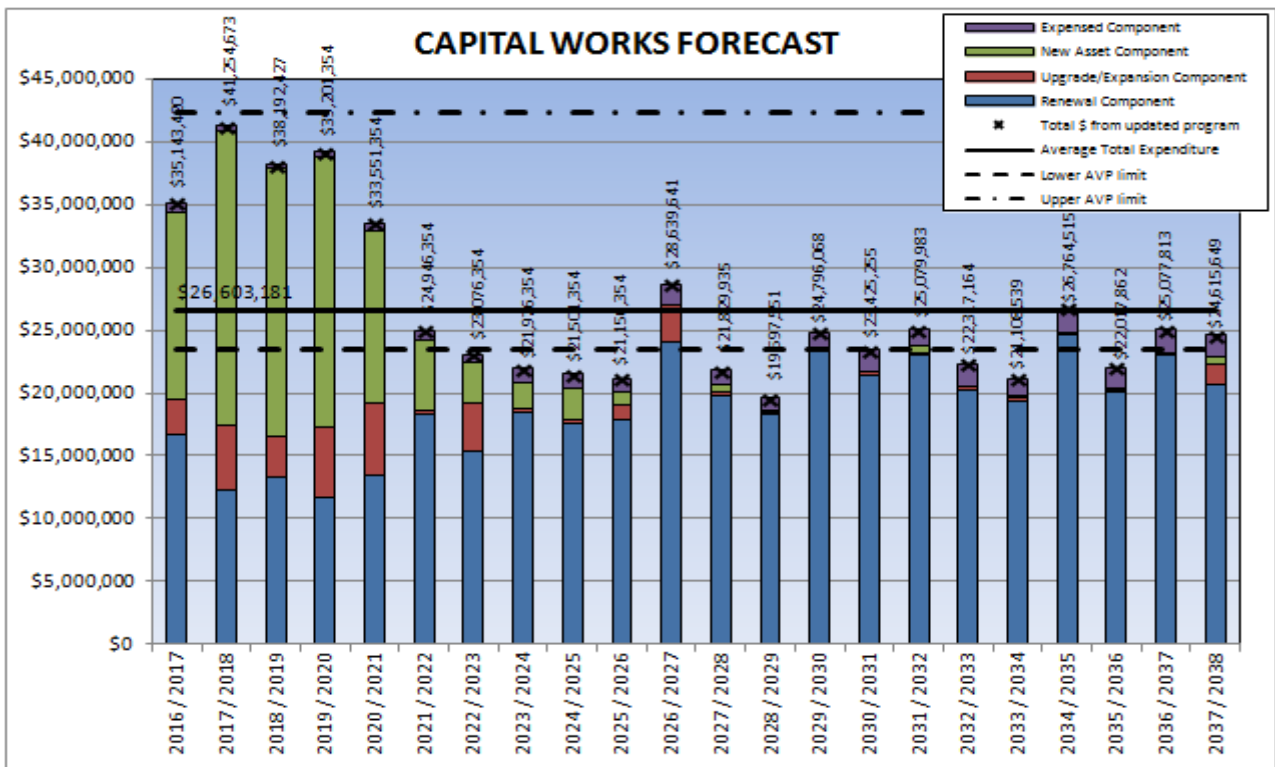
### 5.4.2 20 Year Capital Forecast

The 20 year capital forecast (extended to 22 years at the request of Finance) provides renewal/new/upgrade/expensed expenditure requirements over the duration of the Long Term Financial Management Plan (LTFMP). The bar chart below details the latest forecast to be reflected within the LTFMP.

It should be noted that elements of renewal during the first 5 year period may be driven by service demand requirements and be represented within the forecast as premature renewal.

The split of renewal/upgrade/new/expensed is based on details currently contained within the AMS based on information recorded against assets and projects.

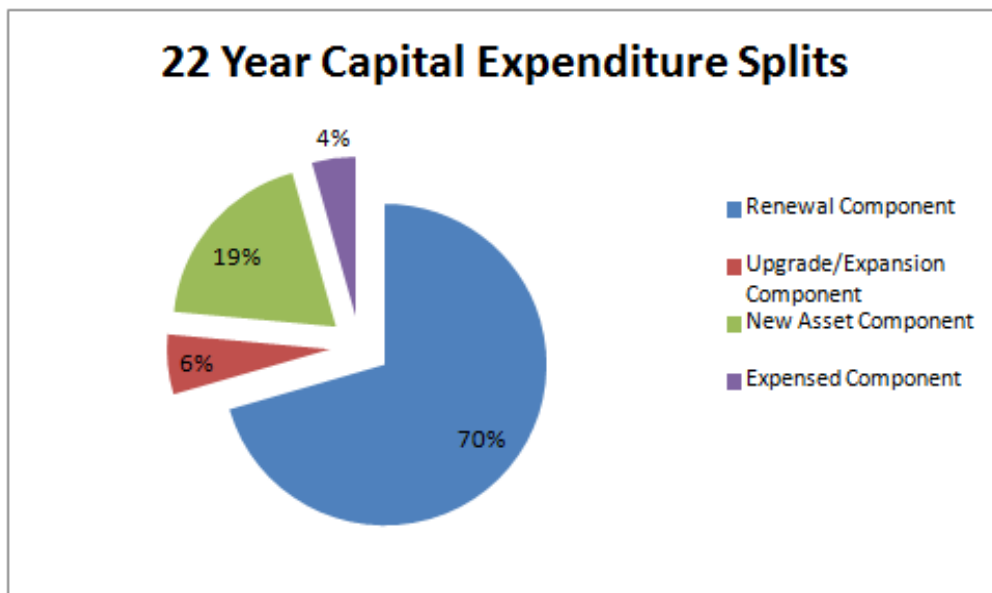
Through the early stages of the forecast period, the profile reflects a substantial increase in expenditure towards new and upgrade than previously represented within AMP documents and the LTFMP. This is the result of the lifting of the new asset annual allocation of \$1.5M enforced by the Council over previous years to control growth of the asset register.



Represented within the 22 year bar chart above, are the lower and upper annual variance potential (AVP) limits reported within Section 2.4 of this plan. The extent of service planning initiatives comprising the “Transforming Hobart” program falls within the upper AVP limit. The graph emphasises the potential for service demand variances within the latter stages of the forecast period that are currently unknown and not represented within the current version of the LTFMP.

The consolidated forecast results in a 22 year average capital expenditure requirement of \$26,603,181 or, as expressed as a total funding requirement of \$585,269,974.

The following pie chart represents the % splits across the expenditure classifications over the period, noting that the bulk majority of forecast expenditure and new and upgrade is concentrated at the earlier stages of the period.



### 5.4.3 100 Year Renewal Forecast

The service life expectation of Council’s suite of infrastructure varies dramatically across the portfolios. Assets aligned with the Roads, Buildings and Stormwater portfolios can remain in service well beyond 100 years. Based from December 2015 data, the weighted average life of assets across all portfolios is 62 years as shown in the following table.

PlanName	LTRD	RenValue	Portfolio Std Life
Buildings - Bill Hanley	\$3,052,104	\$291,178,444	137
Bushland Infrastructure - Greg Milne	\$927,689	\$32,703,580	43
Information & Communication Technology Services - Francis Ryan	\$1,241,817	\$4,974,045	4
Miscellaneous Items - Helen Worker	\$1,535,001	\$16,101,274	11
Parks Infrastructure - Debbie Wood	\$1,604,297	\$47,652,510	34
Plant, Vehicles & Equipment - Greg Fannon	\$2,636,454	\$20,431,642	9
Road Infrastructure - Robert Clifford	\$12,981,234	\$976,816,285	64
Solid Waste Management - David Holman	\$392,534	\$10,181,965	55
Sporting Facilities - Shannon Avery	\$1,224,538	\$52,043,330	34
Stormwater Reticulation & Rivulets - John Holmes	\$2,987,402	\$338,743,207	121
	<b>\$28,583,070</b>	<b>\$1,790,207,616</b>	<b>62</b>

The implication of long life assets is a need to view well beyond the term of the LTFMP to appreciate the financial impact of Council’s assets on future generations.

Decisions made today on assets have “intergenerational” implications and the administration of the time, charged with the responsibility of decision making, needs to be aware of potential long-term sustainability consequences of past decision on future generations. The purpose of the 100 year funding profile graph is to provide this longer term overview.



The 100 year renewal forecast is derived directly from two main sources, being:

- Years 1 to 20 reflecting the 20 year renewal element forecast detailed under Section 5.4.2, and
- Years 21 to 100 based solely from the renewal date and value data extracted from the Conquest AMS. The projections account for the recurring renewal of the shorter life assets.

The long term 100 year renewal expenditure forecast is detailed in **Appendix 2**.

### **Trends in Renewal Demand**

Renewal demand represents the expenditure requirements to renew (replace or rehabilitate) existing infrastructure to modern equivalent (MEERA) standards. It therefore includes all costs to adjust the service potential of the current asset to MEERA standards and include costs which cannot be capitalised (expensed amounts).

The impacts of service demand expenditure associated with the creation or disposal of infrastructure, which will expand or contract the infrastructure network into the future, are not included within current long term renewal forecasts.

It should also be noted that a substantial element of renewal during the first 5 years of the forecast graph are partially driven by service demand requirements which will result in the premature renewal of those assets. Section 3.3.2 reports the Premature Renewal Indicator, and measures the level of premature renewal for all portfolios to be in the order of 30% of the expenditure during this period.

Following this initial surge in renewal averaging around \$25M annually for the first 5 year period, the forecast settles back to normal levels of renewal demand of approximately \$18M annually to then increase at a steady rate over the next 20 year period (up to 2040) to approximately \$28M annually.

The annual rate of increase over the period 2020 to 2040 will be in the order of \$500,000 for each and every year.

The period following 2040 will experience dramatic increases, to peak around \$55M annually by 2050 as large quantities of assets fall due for renewal.

Sustained high levels of renewal demand will extend over a 30 year period from the 2040 to 2070 at a magnitude of about twice that which the current generation is being required to fund.

Over the longer term, renewal demand is around \$29M annually, which is approximately 1.5 times the current level of funding.

The issues of intergenerational equity and asset write-off of service potential from existing assets, as the result of current infrastructure investment decisions, will need to be addressed within future asset management and service management strategies to ensure sustainability can be maintained across both current and future generations.

## 6 FINANCIAL SUMMARY

This section summarises the financial outcomes relating to CapEx requirements drawn from the 10 asset portfolios.

In general:

- All \$ amounts detailed represent values as at 31<sup>st</sup> December 2016 for indexing purposes.
- All values incorporate expensed requirements associated with projects.
- Details are only provided on CapEx forecasts. O&M requirements for 2016/17 year are to be prepared by Function Officers during the annual budget preparation process.

### 6.1 Financial Valuations

The financial value of assets are derived in accordance with the reporting requirements of AASB116 and **do not** necessarily correspond to the “renewal value” referenced throughout this document.

The most current reported financial statement can be sourced from:

<[http://cbc/Business\\_Support/Finance/Publications/Financial Statements](http://cbc/Business_Support/Finance/Publications/Financial_Statements) > with asset related information in the document under the heading

“21. PROPERTY, PLANT AND EQUIPMENT”

### 6.2 FAIR Panel Endorsed Indexation

The FAIR Panel considers and endorses indexation amounts during April/May of each year.

The indexation process establishes “forecast renewal rates/values” which are applied to generate the expenditure requirements across all years within referenced (3, 20 & 100yr) forecast periods.

The following table details indexation amounts applied to renewal rates/values associated with asset types included within each of the asset portfolios. To support forecasting, indexation is applied to the midpoint of the first year of the forecast period. As endorsed by the FAIR Panel, an adopted indexation rate is applied to generate “Forecast Renewal Rates” through the period 01/07/2015 to 31/12/2016, as detailed in the following table, to enable forecast projections to somewhat represent the true value of works during year 1 of the forecast period.

There is no indexation applied to forecast values represented within this AMP beyond the mid-point of year 1 (ie 31/12/2016). Indexation adjustment to these values is applied by Financial Services when transferred into the LTFMP.

Financial Year	BUILDINGS	BUSHLAND	ICT	MISC. ITEMS	PARKS	PVE	ROADS	SOLID WASTE	SPORTING	STORMWATER
01/07/2012 to 30/06/2013	3.05%	3.05%	3.05%		3.05%	3.05%	3.05%	3.05%	3.05%	3.05%
01/07/2013 to 30/06/2014	12.00%	3.95%	3.95%	3.95%	3.95%	3.95%	3.95%	3.95%	3.95%	3.95%
01/07/2014 to 30/06/2015	7.00%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%
01/07/2015 to 30/06/2016	8.00%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%
01/07/2016 to 31/12/2016	4.00%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%

### 6.3 5 Year Consolidated Capital Expenditure Program

The following table provides the Class level summary of the 5 year capital works program as provided to Financial Services for inclusion into the LTFMP.

The values are inclusive of the full consolidated capital works program which comprises projects and asset renewal demand drawn from the “Transforming Hobart” and “Renewing Hobart” programs described within Section 5 of the plan.

Class	2016 / 2017	2017 / 2018	2018 / 2019	2019 / 2020	2020 / 2021
<b>Buildings</b>	<b>6,518,682</b>	<b>5,463,308</b>	<b>4,418,346</b>	<b>7,083,179</b>	<b>5,336,100</b>
Renewal Component	3,097,222	1,626,672	1,543,326	2,107,123	2,129,730
Upgrade/Expansion Component	513,500	685,977	369,098	1,001,736	929,605
New Asset Component	174,090	357,860	349,492	459,078	56,103
Expensed Component	136,580	58,806	40,526	86,705	101,417
Transforming Hobart	2,597,290	2,733,993	2,115,905	3,428,538	2,119,245
<b>Infrastructure Plant</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Renewal Component	0	0	0	0	0
Upgrade/Expansion Component	0	0	0	0	0
New Asset Component	0	0	0	0	0
Expensed Component	0	0	0	0	0
Transforming Hobart	0				
<b>Land Improvements</b>	<b>3,863,536</b>	<b>3,975,627</b>	<b>4,062,534</b>	<b>5,964,511</b>	<b>3,535,774</b>
Renewal Component	1,835,682	1,183,723	1,419,041	1,774,338	1,411,189
Upgrade/Expansion Component	304,344	499,183	339,374	843,529	615,970
New Asset Component	103,181	260,413	321,347	386,575	37,174
Expensed Component	80,949	42,793	37,262	73,011	67,200
Transforming Hobart	1,539,379	1,989,516	1,945,510	2,887,059	1,404,241
<b>Other</b>	<b>3,998,918</b>	<b>1,633,533</b>	<b>1,006,313</b>	<b>1,385,801</b>	<b>1,338,129</b>
Renewal Component	1,900,006	486,376	351,504	412,252	534,070
Upgrade/Expansion Component	315,009	205,108	84,065	195,986	233,116
New Asset Component	106,796	107,000	79,599	89,817	14,069
Expensed Component	83,786	17,583	9,230	16,963	25,432
Transforming Hobart	1,593,321	817,466	481,914	670,782	531,441
<b>Other Structures</b>	<b>3,134,918</b>	<b>5,210,582</b>	<b>5,992,849</b>	<b>2,791,585</b>	<b>2,756,518</b>
Renewal Component	1,489,494	1,551,424	2,093,299	830,448	1,100,174
Upgrade/Expansion Component	246,949	654,245	500,628	394,799	480,215
New Asset Component	83,722	341,306	474,035	180,930	28,981
Expensed Component	65,683	56,086	54,968	34,172	52,390
Transforming Hobart	1,249,070	2,607,522	2,869,920	1,351,237	1,094,757
<b>Pipes, Drains &amp; Rivulets</b>	<b>750,650</b>	<b>2,401,615</b>	<b>880,543</b>	<b>2,386,043</b>	<b>3,888,753</b>
Renewal Component	356,657	715,069	307,573	709,806	1,552,069
Upgrade/Expansion Component	59,131	301,549	73,558	337,445	677,462
New Asset Component	20,047	157,312	69,651	154,645	40,885
Expensed Component	15,728	25,851	8,077	29,207	73,909
Transforming Hobart	299,088	1,201,836	421,684	1,154,939	1,544,428
<b>Plant &amp; Equipment</b>	<b>1,158,363</b>	<b>1,260,986</b>	<b>1,479,407</b>	<b>878,764</b>	<b>2,605,794</b>
Renewal Component	914,907	751,548	991,646	506,661	1,725,175
Upgrade/Expansion Component	151,686	316,932	237,159	240,869	753,021
New Asset Component	51,425	165,337	224,562	110,386	45,446
Expensed Component	40,345	27,169	26,039	20,848	82,152
Transforming Hobart	0	0	0	0	0
<b>Roads &amp; Bridges</b>	<b>15,718,353</b>	<b>21,309,021</b>	<b>20,352,436</b>	<b>18,711,471</b>	<b>14,090,286</b>
Renewal Component	7,103,729	5,968,557	6,634,204	5,321,094	4,938,520
Upgrade/Expansion Component	1,177,753	2,516,975	1,586,618	2,529,672	2,155,614
New Asset Component	399,289	1,313,053	1,502,340	1,159,306	130,093
Expensed Component	313,258	215,771	174,207	218,954	235,171
Transforming Hobart	6,724,324	11,294,667	10,455,067	9,482,446	6,630,888
<b>Total</b>	<b>35,143,420</b>	<b>41,254,673</b>	<b>38,192,427</b>	<b>39,201,354</b>	<b>33,551,354</b>

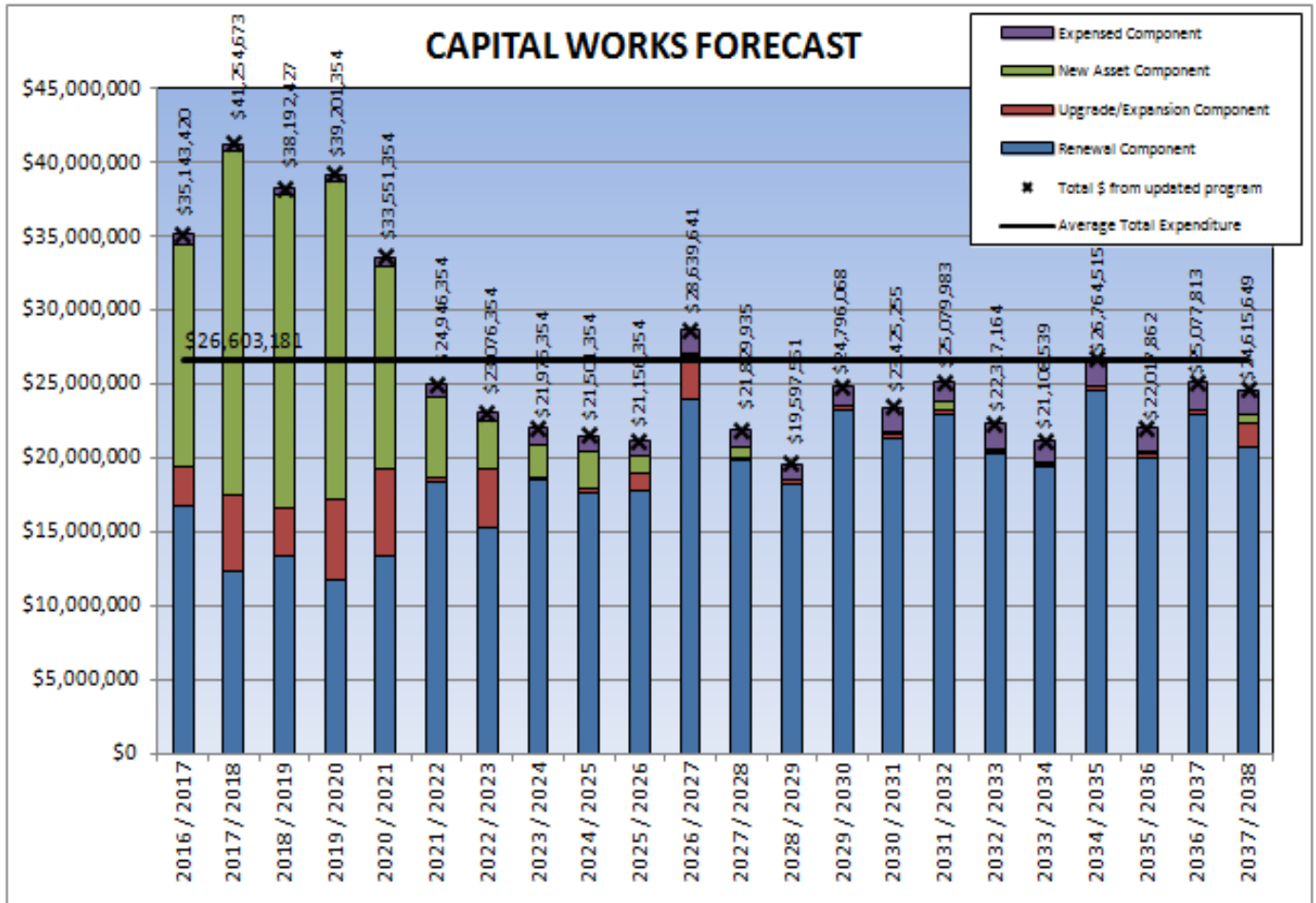
## 6.4 LTFMP - 22 Year CAPEX Forecasts

The 22 year consolidated capital expenditure forecast is detailed in the bar chart below.

The chart includes the funding impact of the budget cap on the “Renewing Hobart” program during the years 4 to 10 of the forecast period of \$20,226,354 which results in the accumulation of “Unfunded” renewal works up until the financial year 2030/2031.

It should be noted that renewal demand is fully funded over the 20 year forecast period.

Class breakdown splits of the 22 year forecast, in the format represented under Section 6.3, have been provided to Financial Services for inclusion into the LTFMP.



### “Transforming Hobart” project details

The latest version projects associated with the “Transforming Hobart” program is detailed within **Appendix 4**.

## 7 ASSET MANAGEMENT CONTINUAL IMPROVEMENT

This section of the Overarching AMP document monitors progress against improvement initiatives by asset managers aligned with their respective asset portfolios.

A central register of all AM improvements was maintained by the Asset Services Unit to record all AM related improvements listed within sub-ordinate AMP documents up until 2015. The purpose of this register was to periodically monitor the status of improvement completions and provide a central record of the continual improvement journey associated with the 13 key success factors of asset management best practice.

Access to the current AM Improvement Register can now be obtained via the CBC for each sub-ordinate asset portfolio. Information is contained under the respective folder year and is reported within the State of the Asset reports and progress updated annually.

AM improvements are mostly transferred and referenced by a Unit Manager within the corresponding unit plan for completion in accordance with resource availability.

There are 70 active initiatives extracted from the various AM Improvement Registers down from 218 when first commenced monitoring in 2011. This reduction can be largely attributed to:

- the completion and close-off of initiatives, or
- reconsideration by asset managers of the need to continue with previously identified initiatives considering current circumstances, or
- consolidation of a number of improvements into a single improvement initiative.

With the inaugural production of Strategic Asset Management Plans aligned with the Roads, Buildings and Stormwater asset portfolios, improvement plans are now linked to strategic actions which progress over the 4 year duration of the plans.

Strategic actions are often substantial and require the allocation of resources and funding to enable completion. The insertion of these actions into corresponding Unit Plans may be impacted by the availability of resources and funding within a given financial year which will have implications on the ability of the asset manager to complete them within the intended timeframes.

Review of improvement plans are completed annually with the update of the State of the Asset reports, at which point, asset managers can communicate the progress of initiatives and implications of not meeting planned timeframes.

### 7.1 Asset Management Assurance – Reported Outcomes

CoH's AM Assurance Process is applied annually to provide a level of assurance that the incorporated systems and processes comprising the Asset Management Framework are effective with the achievement of intended objectives and outcomes.

Key elements of the AM Framework are considered annually and decisions made as to where to focus available resources to conduct an audit assessment of compliance with requirements and identification of system improvements.

During 2016, AM Assurance was completed on the Roads portfolio and provided independent verification that the renewal forecast methodology adopted was in accordance with industry best practice expectations with the capacity to result in a robust and reliable renewal forecast based from current knowledge and information. Some minor improvements were identified through the assurance process and have been incorporated within the improvement plan.

### 7.2 Asset Management Competencies – Reported Outcomes

CoH's AM Competency Development Framework is applied annually to ensure that the necessary skills and abilities of personnel within Council have the capacity to competently, efficiently and effectively undertake asset management related roles and the associated tasks to achieve the standard of output required to facilitate informed decision making.

The procedure considers development requirements highlighted annually through performance reviews, audits and system analysis to derive a plan of initiatives which can be implemented via liaison through the corporate learning and development system.

No specific actions have been identified as part of this process.

# Glossary

Refer to the corporate AM Glossary via CBC at the following link.

<[http://cbc/content/Public/Business\\_Support/City\\_Services\\_Resources/Asset\\_Management/Asset\\_Management\\_Planning\AM\\_Glossary\Asset\\_Management\\_Glossary.doc](http://cbc/content/Public/Business_Support/City_Services_Resources/Asset_Management/Asset_Management_Planning\AM_Glossary\Asset_Management_Glossary.doc)>

**APPENDIX 1 Renewal Forecast Assurance – Risk Factors**

**BUILDINGS - RISK FACTORS**

Portfolio	Risk Factor Category	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence		Current Residual Likelihood Average Annual Probability for Risk Event over the 20 Year Period	Current Risk Cost Annualised Variance Potential (AVP)	
				UnfavC\$ Unfavourable - Increase in Renewal Requ	FavC\$ Favourable - Decrease in Renewal Requ		UnfavCurr RC (Unfav C\$) * (currL20Yr)	FavCurr RC (Fav C\$) * (currL20Yr)
Buildings	Service Planning & Management	1.1 Service Delivery Planning	<ul style="list-style-type: none"> <li>Renewals earlier than currently forecasted and</li> <li>at standards and therefore costs that are higher than currently forecasted</li> </ul> caused by <ul style="list-style-type: none"> <li>Insufficient service planning input and</li> <li>unplanned political initiatives</li> </ul>	\$1,500,000	\$0	1.0	\$1,500,000	\$0
Buildings	Service Planning & Management	1.1.7.2 Leased Assets reverting to Council's control	Currently leased land handed back to the Council with building assets requiring substantial renewal works which were previously not recognised as Council buildings.	\$2,300,000	\$0	0.1	\$230,000	\$0
Buildings	Service Planning & Management	1.1.7.3 Taking over assets	Taking over assets resulting in expansion of asset base	\$650,000	\$0	0.15	\$97,500	\$0
Buildings	Service Planning & Management	2.3 Design Solutions	Solutions designed beyond the intent of the initial brief	\$500,000	\$0	1.0	\$500,000	\$0
Buildings	Asset Management	2.6 Forecasting	Variations to forecast possible due to a number of issues: <ul style="list-style-type: none"> <li>Lack of up to date condition assessments will not predict asset renewal dates accurately.</li> <li>MEERAs / Avg Renewal Costs not correctly identified / costed / assigned.</li> <li>External replacement values provided by valuers seem to understate true cost of renewal by up to 67%</li> </ul>	\$500,000	\$500,000	1.0	\$500,000	\$500,000
Buildings	Asset Management	2.7.4 Asset Maintenance	Underfunding of maintenance reduces asset lives.	\$500,000	\$0	1.0	\$500,000	\$0
Buildings	External Influences	11.2.1 Future funding from 'Other'	Funding from 'Other Funding Sources' may add additional works requirements. E.g. New Town Bay Rowing Club then required car park, landscaping, asbestos removal, etc..	\$100,000	\$0	0.25	\$25,000	\$0

# APPENDIX 1

Portfolio	Risk Factor Category	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event  What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence \$ Impact per risk event		Current Residual Likelihood  Average Annual Probability for Risk Event over the 20 Year Period	Current Risk Cost Annualised Variance Potential (AVP)  (C\$) * (currL20Yr)	
				UnfavC\$  Unfavourable - Increase in Renewal Requ	FavC\$  Favourable - Decrease in Renewal Requ		UnfavCurr RC  (Unfav C\$) * (currL20Yr)	Fav Curr RC  (Fav C\$) * (currL20Yr)
		Funding Sources						
Buildings	Economic Factors	12.1 Contractor / Labour Market	Variations in contractor availability and rates can significantly affect renewal rates.	\$400,000	\$0	0.25	\$100,000	\$0
<b>Buildings AVP</b>							<b>\$3,452,500</b>	<b>\$500,000</b>



# APPENDIX 1

## BUSHLAND - RISK FACTORS

Portfolio	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence \$ Impact per risk event		Current Residual Likelihood  Average Annual Probability for Risk Event over the 20 Year Period  Example: 3 X in 20 yrs  = 3 / 20 = 0.15	Current Risk Cost Annualised Variance Potential (AVP)  (C\$) * (currL20Yr)	
			UnfavC\$  Unfavourable - Increase in Renewal Requ	FavC\$  Favourable - Decrease in Renewal Requ		UnfavCurr RC  (Unfav C\$) * (currL20Yr)	Fav Curr RC  (Fav C\$) * (currL20Yr)
Bushland	Service Delivery Planning	Updated plans and strategies create asset replacement projects may result in <ul style="list-style-type: none"> <li>renewals earlier than currently forecasted,</li> <li>with upgrade components higher than currently forecasted; and</li> <li>creation of short-life assets that may need renewal in the forecast period</li> </ul>	\$6,500,000	\$0	0.05	\$325,000	\$0
Bushland	Staffing	Increase in asset base & reduction in operational budget reduces maintenance activities which is likely to result in renewal requirements earlier than currently forecasted.	\$150,000	\$0	1.0	\$150,000	\$0
Bushland	Asset Replacement Funds spent on New Assets		\$55,000	\$0	1.0	\$55,000	\$0
Bushland	Data Accuracy	Inaccurate data could contribute to under- or over-estimation of renewal requirements.	\$55,000	\$55,000	1.0	\$55,000	\$55,000
Bushland	Forecasting Logic (Method to model Requirements)	Change from modelling Fire Trail requirements as grouped assets to ungrouped is likely to increase forecasted requirements	\$1,600,000	\$0	0.05	\$80,000	\$0
Bushland	Disasters / Extreme Weather Events / Acts of God	<b>Extreme impact bushfire</b> may result in earlier renewals than currently forecasted.	\$10,000,000	\$0	0.05	\$500,000	\$0
Bushland	Disasters / Extreme Weather Events / Acts of God	<b>Moderate - major impact bushfire</b> may result in earlier renewals than currently forecasted.	\$300,000	\$0	0.29	\$87,000	\$0
Bushland	Disasters / Extreme Weather Events / Acts of God	Increasing likelihood of <b>flood &amp; landslip events</b> may result in earlier renewals than currently forecasted.	\$100,000	\$0	0.1	\$10,000	\$0
<b>Bushland AVP</b>						<b>\$1,262,000</b>	<b>\$55,000</b>

# APPENDIX 1

## PARKS INFRASTRUCTURE - RISK FACTORS

Portfolio	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence \$ Impact per risk event		Current Residual Likelihood  Average Annual Probability for Risk Event over the 20 Year Period Example: 3 X in 20 yrs  = 3 / 20 = 0.15	Current Risk Cost Annualised Variance Potential (AVP)  (C\$) * (currL20Yr)	
			UnfavC\$  Unfavourable - Increase in Renewal Requ	FavC\$  Favourable - Decrease in Renewal Requ		UnfavCurr RC  (Unfav C\$) * (currL20Yr)	Fav Curr RC  (Fav C\$) * (currL20Yr)
Parks	Service Delivery Planning	Updated plans and strategies create asset replacement projects which may result in <ul style="list-style-type: none"> <li>renewals earlier than currently forecasted,</li> <li>with upgrade components higher than currently forecasted; and</li> <li>creation of new short-life assets that may need renewal in the forecast period</li> </ul>	\$575,000	\$0	1.0	\$575,000	\$0
Parks	Asset Replacement Funds spent on New Assets		\$110,000	\$0	1.0	\$110,000	\$0
Parks	Data Accuracy	Inaccurate data could contribute to under- or over-estimation of renewal requirements. Renewal dates in AMS not reflecting remaining useful lives.	\$220,000	\$110,000	1.0	\$220,000	\$110,000
Parks	Modern Replacement Type (MEERA)	Upgrade component of renewal funding not yet identified & modelled for many assets.	\$224,000	\$110,000	1.0	\$224,000	\$110,000
Parks	Use of Grouped Amounts	Grouped amounts used for BBQs renewal requirements are too high.	\$0	\$1,700,000	0.05	\$0	\$85,000
Parks	Use of Grouped Amounts	Renewal demand for pavements in Parks will significantly increase during the forecast period.	\$4,400,000	\$0	0.05	\$220,000	\$0
Parks	Disasters / Extreme Weather Events / Acts of God	Bushfire may result in earlier renewals than currently forecasted.	\$10,400,000	\$0	0.05	\$520,000	\$0
<b>Parks Infrastructure AVP</b>						<b>\$1,869,000</b>	<b>\$305,000</b>

# APPENDIX 1

## PLANT, VEHICLES & EQUIPMENT - RISK FACTORS

Portfolio	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence \$ Impact per risk event		Current Residual Likelihood Average Annual Probability for Risk Event over the 20 Year Period Example: 3 X in 20 yrs = 3 / 20 = 0.15	Current Risk Cost Annualised Variance Potential (AVP)  (C\$) * (currL20Yr)	
			UnfavC\$ Unfavourable - Increase in Renewal Requ	FavC\$ Favourable - Decrease in Renewal Requ		UnfavCurr RC (Unfav C\$) * (currL20Yr)	Fav Curr RC (Fav C\$) * (currL20Yr)
Plant & Equip	Current Service Levels / Priority Changes	Cleansing & Waste – Service Level Changes could result in requirement for additional trucks which require renewal during the forecast period.	\$50,000	\$0	1.0	\$50,000	\$0
Plant & Equip	Exchange rates	Foreign Exchange Rates	\$600,000	\$600,000	1.0	\$600,000	\$600,000
Plant & Equip	Equipment & Materials	Plant and Vehicle Manufacture	\$200,000	\$200,000	1.0	\$200,000	\$200,000
Plant & Equip	Equipment & Materials Availability / Quality	Improved reliability & useful lives for light vehicles & trucks	\$0	\$202,500	1.0	\$0	\$202,500
Plant & Equip	Equipment & Materials Availability / Quality	Reduced reliability & useful lives for very heavy plant	\$60,000	\$0	1.0	\$60,000	\$0
<b>Plant, Vehicles &amp; Equipment AVP</b>						<b>\$910,000</b>	<b>\$1,002,500</b>

# APPENDIX 1

## ROADS INFRASTRUCTURE - RISK FACTORS

Portfolio	Risk Factor Category	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence \$ Impact per risk event		Current Residual Likelihood Average Annual Probability for Risk Event over the 20 Year Period Example: 3 X in 20 yrs = 3 / 20 = 0.15	Current Risk Cost Annualised Variance Potential (AVP) (C\$) * (currL20Yr)	
				UnfavC\$ Unfavourable - Increase in Renewal Requ	FavC\$ Favourable - Decrease in Renewal Requ		UnfavCurr RC (Unfav C\$) * (currL20Yr)	Fav Curr RC (Fav C\$) * (currL20Yr)
Roads	Service Planning & Management	1.1.1.1 Master Plans	Impacts from Master Plans and significant projects, like Domain Master Plan, Soldiers Walk, Sandy Bay sea wall Implementation of ICAPS results in increase of premature renewals	\$90,000	\$0	1.0	\$90,000	\$0
Roads	Service Planning & Management	1.1.7.3 Taking over assets	Taking over assets and/or responsibilities from State government or private developers. Eg. New sub-divisions on steep slopes, line-marking, maybe even traffic signals Taking over poorly constructed suburbs that fail prematurely (retaining walls, embankments, pavements, etc.)	\$50,000	\$0	0.5	\$25,000	\$0
Roads	Service Planning & Management	1.3.2 Community Service Levels	Current service levels may be higher than community might be prepared to accept currently and in future	\$0	\$200,000	0.1	\$0	\$20,000
Roads	Service Planning & Management	1.3.2 Community Service Levels	Current planned service levels are lower than what is acceptable to the community. Examples include Sandy Bay shopping precinct project, bus mall, planned review of all shopping precincts	\$75,000	\$0	1.0	\$75,000	\$0
Roads	Service Planning & Management	1.5.1.1 Maintenance Budget	Insufficient maintenance resulting in loss of achievable service life.	\$1,050,000	\$0	1.0	\$1,050,000	\$0
Roads	Asset Management	2.6.1 Forecasting Data Bridges, guard rails, retaining walls, street lighting...	Data confidence has been low, improving completeness and accuracy may change current forecasts.	\$750,000	\$0	1.0	\$750,000	\$0
Roads	Asset Management	2.6.2 Forecasting Assumptions	MEERA Unit Rates too low.	\$800,000	\$0	0.8	\$640,000	\$0
Roads	Asset Management	2.6.3 Forecasting Methodology	Asset renewals grouped as projects result in early renewal for some portion of the assets in projects	\$525,000	\$0	0.75	\$393,750	\$0
Roads	Asset Management	3.8 Project Scheduling	Progressive implementation of the PMS should result in increased lead times and better planning of works. Some uncertainties re. impact of other utilities.	\$0	\$1,575,000	0.75	\$0	\$1,181,250

# APPENDIX 1

Portfolio	Risk Factor Category	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence \$ Impact per risk event		Current Residual Likelihood Average Annual Probability for Risk Event over the 20 Year Period Example: 3 X in 20 yrs = 3 / 20 = 0.15	Current Risk Cost Annualised Variance Potential (AVP) (C\$) * (currL20Yr)	
				UnfavC\$ Unfavourable - Increase in Renewal Requ	FavC\$ Favourable - Decrease in Renewal Requ		UnfavCurr RC (Unfav C\$) * (currL20Yr)	Fav Curr RC (Fav C\$) * (currL20Yr)
Roads	Asset Management	4 Contract Management	Defects liability management for asphalt quality. Estimated 5-10% of asphalt jobs are deficient and affect the life of seal & pavement.	\$100,000	\$0	1.0	\$100,000	\$0
Roads	External Influences	15.1 Legislation, Codes f Practice & Standards	Increased cost of renewal caused by changes / additional obligations, mostly WHS harmonisation, also requirements from other utilities & DDA. Cost issues include traffic management, use of Vac Truck, more design requirements, line marking, ...	\$2,100,000	\$0	1.0	\$2,100,000	\$0
Roads	External Influences	15.2 Other Utilities	Infrastructure roll-outs reducing life of current assets and/or increasing cost of renewal	\$1,032,000	\$0	1.0	\$1,032,000	\$0
<b>Roads AVP</b>							<b>\$6,255,750</b>	<b>\$1,201,250</b>

# APPENDIX 1

## SOLID WASTE - RISK FACTORS

Portfolio	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence \$ Impact per risk event		Current Residual Likelihood  Average Annual Probability for Risk Event over the 20 Year Period  Example: 3 X in 20 yrs  = 3 / 20 = 0.15	Current Risk Cost Annualised Variance Potential (AVP)  (C\$) * (currL20Yr)	
			UnfavC\$  Unfavourable - Increase in Renewal Requ	FavC\$  Favourable - Decrease in Renewal Requ		UnfavCurr RC  (Unfav C\$) * (currL20Yr)	Fav Curr RC  (Fav C\$) * (currL20Yr)
Solid Waste	New Assets	New assets created by landfill rehabilitation will increase renewal funding requirements	\$1,950,000	\$0	0.05	\$97,500	\$0
Solid Waste	New Assets	Wheelie bin green waste collection as additional service	\$35,000	\$0	0.5	\$17,500	\$0
Solid Waste	Regional Services	Creation of a waste management authority that takes over all solid waste management activities	\$0	\$2,200,000	0.0125	\$0	\$27,500
Solid Waste	Equipment & Materials Cost	Oil price changes directly impacting wheelie bin replacement costs	\$420,000	\$0	0.05	\$21,000	\$0
<b>Solid Waste AVP</b>						<b>\$136,000</b>	<b>\$27,500</b>

# APPENDIX 1

## SPORTING FACILITIES - RISK FACTORS

Portfolio	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence \$ Impact per risk event		Current Residual Likelihood  Average Annual Probability for Risk Event over the 20 Year Period  Example: 3 X in 20 yrs  = 3 / 20 = 0.15	Current Risk Cost Annualised Variance Potential (AVP)  (C\$) * (currL20Yr)	
			UnfavC\$  Unfavourable - Increase in Renewal Requ	FavC\$  Favourable - Decrease in Renewal Requ		UnfavCurr RC  (Unfav C\$) * (currL20Yr)	Fav Curr RC  (Fav C\$) * (currL20Yr)
Sporting Facilities	Leased Assets reverting to Council's control	Relinquishment of leases at Council properties - The plan has been written assuming all leases will remain in place.	\$300,000	\$0	0.075	\$22,500	\$0
Sporting Facilities	Asset Replacement Funds spent on New Assets		\$90,000	\$0	1.0	\$90,000	\$0
Sporting Facilities	Valuation Types	Out of date, not reflecting current technology or modern equivalent, types not correctly assigned, not enough types in the system, values & lives may be out of date, limited misperception that ASU is responsible for review of non-significant types	\$180,000	\$90,000	0.25	\$45,000	\$22,500
Sporting Facilities	External Funding	Jobs brought forward due to external funding.	\$200,000	\$0	1.0	\$200,000	\$0
Sporting Facilities	Changes to "Current Standard"	Current trends in sports, changes in sports, changes in numbers for each sport, changes in expectations (AFL level sports fields, lighting levels), no strategic guidance from sporting bodies	\$1,000,000	\$0	0.3	\$300,000	\$0
Sporting Facilities	Climate Change	High intensity rainfalls & sea level rise, rainfalls shorten life expectation, so does inundation (temporary & permanent), reduced drainage, silt inflow stuffs drainage, need to upgrade drainage, fix washed out car parks	\$50,000	\$0	0.2	\$10,000	\$0
<b>Sporting Facilities AVP</b>						<b>\$667,500</b>	<b>\$22,500</b>

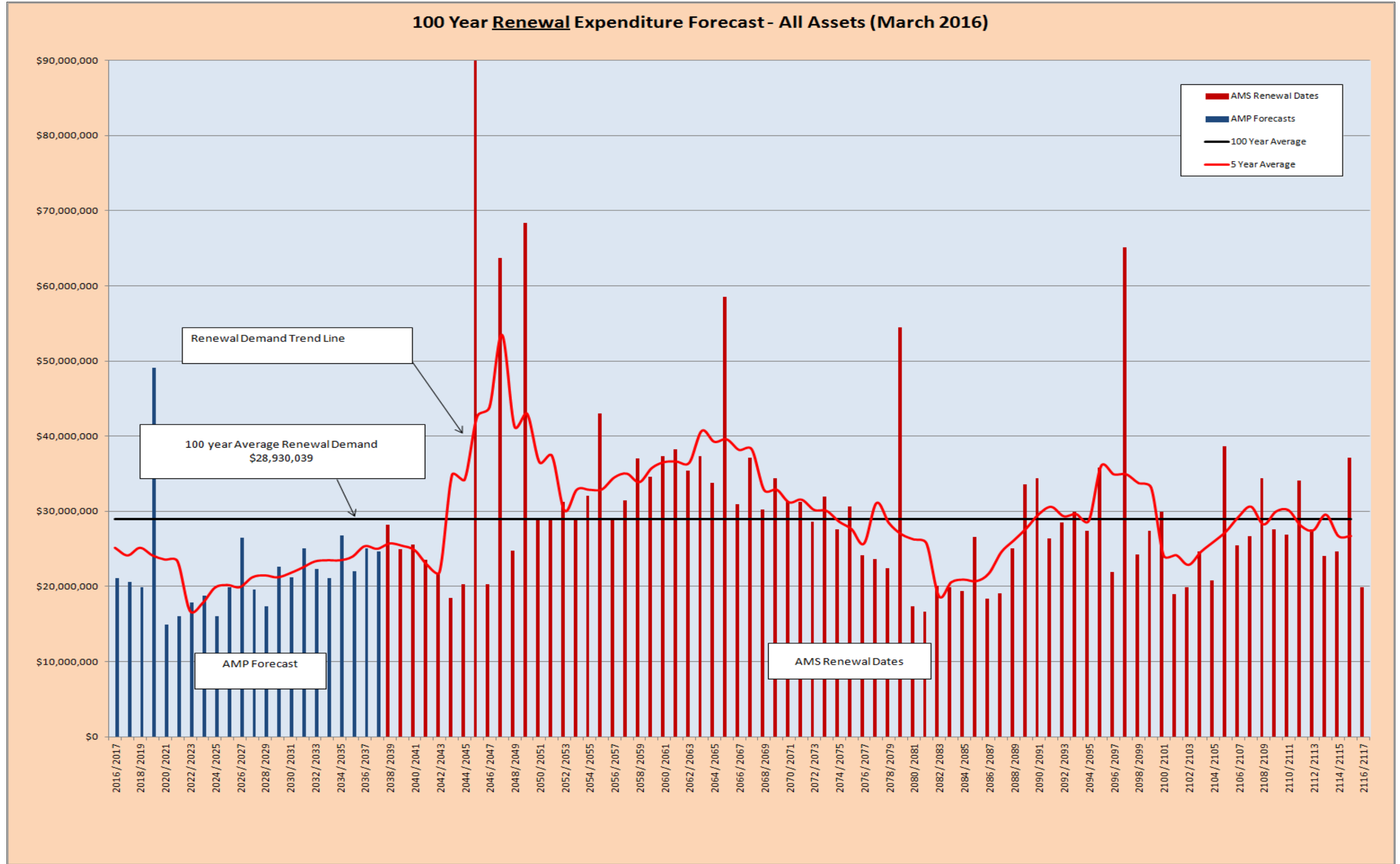
# APPENDIX 1

## STORMWATER - RISK FACTORS

Portfolio	Risk Factor Category	Factor = cause / contributing factor that could result in variation to 20 Year Renewal Forecast	Risk Event What could happen that would impact 20 Year Renewal Forecast. List factors that could reduce forecasts as well as factors that could increase forecasts. If a factor could both decrease and increase the forecast, list each scenario as a separate row.	Current Residual Consequence		Current Residual Likelihood  Average Annual Probability for Risk Event over the 20 Year Period  Example: 3 X in 20 yrs  = 3 / 20 = 0.15	Current Risk Cost Annualised Variance Potential (AVP)	
				UnfavC\$  Unfavourable - Increase in Renewal Requ	FavC\$  Favourable - Decrease in Renewal Requ		UnfavCurr RC  (Unfav C\$) * (currL20Yr)	Fav Curr RC  (Fav C\$) * (currL20Yr)
Stormwater	Service Planning & Management	1.1.7.3.3 Taking over private assets	Taking over private drains	\$5,000,000	\$0	0.05	\$250,000	\$0
Stormwater	Asset Management	2.4.1.1 Estimating Errors	Risk of under-estimating cost of works	\$100,000	\$0	1.0	\$100,000	\$0
Stormwater	Asset Management	2.7.1.1 Major / Catastrophic Failure	Prematurely failure of rivulet drainage assets due to weather events.	\$6,500,000	\$0	.05	\$325,000	\$0
Stormwater	Asset Management	2.7.8 Network / Asset Capacity	Reticulation capacity deficiencies. Areas of unacceptable flood risk that may require earlier intervention and/or higher capacity.	\$10,000,000	\$0	0.025	\$250,000	\$0
Stormwater	External Influences	15.1 Legislation, Codes of Practice & Standards	Change to legislation – Drainage Act Review may require mandatory upgrading of infrastructure	\$10,000,000	\$0	0.0005	\$5,000	\$0
Stormwater	External Influences	15.1.1 Legislation, Codes of Practice & Standards – Health & Safety	Increasing costs due to compliance requirements with WHS Harmonisation, Codes of Practice. Eg. Need to use vac truck	\$100,000	\$0	1.0	\$100,000	\$0
Stormwater	External Influences	15.2 Other Utilities	Unable to renew current asset as usual due to other utilities (TasGas, NBN, Water Meters, ...)	\$25,000	\$0	1.0	\$25,000	\$0
Stormwater	External Influences	15.2.1.1 Stormwater to Sewer Connections	Properties with stormwater currently connected to sewer are connected to HCC stormwater resulting in additional capacity requirements. Increased private drains failures.	\$3,750,000	\$0	0.017	\$63,750	\$0
<b>Stormwater AVP</b>							<b>\$1,118,750</b>	<b>\$0</b>



APPENDIX 2 100 Year Renewal Expenditure Forecast (All Assets)





# APPENDIX 4 Transforming Hobart project listing

Row Labels	Year 1: 2016 / 17	Year 2: 2017 / 18	Year 3: 2018 / 19	Year 4: 2019 / 20	Year 5: 2020 / 21	Sum of 2021 / 22	Sum of 2022 / 23	Sum of 2023 / 24	Sum of 2024 / 25	Sum of 2025 / 26
<b>Transforming Hobart</b>										
<b>Inner City Action Plan</b>	\$ 3,330,000	\$ 9,759,000	\$ 9,250,000	\$ 2,600,000	\$ 5,600,000	\$ -	\$ -	\$ -	\$ -	\$ -
AP01 - Liverpool, Collins and Murray Street Upgrades	\$ -	\$ 500,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP02 - Elizabeth Street Bus Mall	\$ 80,000	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP03 - Morrison St - Stage 2	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP04 - Collins Street / Hobart Rivulet Linear Park Connection	\$ -	\$ -	\$ 1,400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP05 - Elizabeth Mall / Wellington Court Connection	\$ -	\$ 150,000	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP06 - Campbell Street Upgrade (City Campus Project)	\$ -	\$ 100,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -
AP07 - Brooker Bridge - Pedestrian & Cyclist High Level Crossing over Brooker Ave	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP08 - Castray Esplanade Upgrade	\$ 50,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP09 - Collins Court Revitalisation (Stage 2 - Pedestrian Amenity)	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP10 - City Wayfinding Signage	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP10 - City Interpretation Signage	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP14 - Salamanca Pedestrian Works	\$ 500,000	\$ 150,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP16 - Battery Point Walkway - Stage 1	\$ 50,000	\$ 50,000	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP17 - Hunter/Evans redevelopment post MAC1	\$ -	\$ -	\$ 500,000	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
AP18 - Tasman Highway Shared Bridge	\$ -	\$ 6,509,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
AP19 - Kemp Street Upgrade	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Linking CBD to the Waterfront	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Traffic improvements - Bathurst/ Elizabeth	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Macquarie Point linkage to CBD	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Local Retail Precinct Upgrades</b>	\$ 1,960,000	\$ 2,300,000	\$ 2,000,000	\$ 2,500,000	\$ 2,000,000	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -
Battery Point Retail Precinct Upgrade	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -
Elizabeth Street Retail Precinct Upgrade	\$ -	\$ -	\$ -	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lenah Valley Retail Precinct Upgrade	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Town Retail Precinct Upgrade	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
South Hobart Pedestrian Crossing	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
South Hobart Retail Precinct Upgrade	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
West Hobart Pedestrian Amenity Improvements	\$ 10,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sandy Bay Road Quayle St to Duke St Footpath Renewal Works	\$ 1,600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Public Toilet Strategy 2015-2025</b>	\$ 1,405,000	\$ 1,700,000	\$ 1,135,000	\$ 1,300,000	\$ 1,000,000	\$ 550,000	\$ 1,000,000	\$ 900,000	\$ 425,000	\$ -
Argyle St Carpark Public Convenience Refurbishment	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Clare St Oval Public Convenience Renewal	\$ -	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -
Cornelian Bay Public Convenience Internal Refurbishment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -
Domain Athletics Centre - Public Convenience Internal Refurbishment	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Domain Summit Public Convenience	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hobart Central Car Park Public Convenience Internal Refurbishment	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hobart Rivulet Park - Lower Section New Public Convenience	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -
K&D Brickworks Development New Public Convenience	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -	\$ -
Lower Sandy Bay Playground Toilet Renewal	\$ -	\$ -	\$ -	\$ 400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
North Hobart Cultural Park - Amenities Building Renewal	\$ -	\$ -	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Nutgrove Beach Reserve Toilet Access Pathway Improvement	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Prossers Restaurant Public Convenience Internal Refurbishment	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Queens Walk Oval Public Convenience Accessible Works	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -
Regatta Ground Pavilion & Change Rooms Renewal	\$ -	\$ -	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
South Hobart Oval Public Conveniences Internal Refurbishments	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Swan St Public Convenience Building Renewal	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tolmans Hill New Public Convenience	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -
Washington St Playground Public Convenience Internal Refurbishment	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Waterworks Reserve No.2 Public Convenience Internal Refurbishment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -
West Hobart Oval Public Conveniences Internal Refurbishment	\$ -	\$ -	\$ 85,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Town Oval Public Convenience Works (Further scoping required)	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -
Queenborough Oval Toilet Works (Further scoping required)	\$ -	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ 200,000	\$ 100,000	\$ -
Wellesley Park Pavilion Public Convenience Internal Refurbishment	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cascade Gardens Public Convenience - Accessible Toilet Installation	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -
Centrepoint Car Park - Refurbishment of Parenting Facility	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Franklin Square Public Convenience Internal Refurbishment	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Friends Park Public Convenience Accessible Toilet Provision	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -
Knocklofty Reserve - New Public Convenience	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 275,000	\$ -
Long Beach Surf Life Saving Pavilion - Internal Refurbishment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -
Mt Nelson Public Convenience - Improve Accessibility	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ -
North Hobart Oval Public Conveniences - Further Review Required to Establish Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000	\$ 200,000	\$ -	\$ -
Regatta Ground Colvin Stand Public Convenience Upgrade	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ -
Public Convenience - Annual Allocation for Accessibility Upgrades	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ -
SMO Stage 3 Community Hub Toilets	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wellington Park Fern Tree Park Public Convenience Renewal	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wellington Park Lenah Valley Rd Entrance New Public Convenience	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ -
Wellington Park St Crispins Well New Public Convenience	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wellington Park The Chalet New Public Convenience	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Waterworks Reserve No.1 Public Convenience - Remove and Replace	\$ -	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -
Ancanthe Park (Lady Franklin Museum) Public Convenience	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TCA Ground Toilet Block - Building Renewal	\$ -	\$ -	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TCA HC Smith Stand - Toilet Renewal	\$ 460,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Wellington Park - One Mountain</b>	\$ 662,800	\$ 1,420,000	\$ 1,250,000	\$ 300,000	\$ 500,000	\$ 70,000	\$ -	\$ -	\$ -	\$ 80,000
Great Short Walks - Organ Pipes Track - Chalet to Sawmill Track (Stage 1)	\$ 457,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Great Short Walks - Pinnacle Track - Springs To Zig Zag Track	\$ -	\$ 710,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hobart Rivulet to Knocklofty Reserve	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 80,000
Kunanyi Gravity Trail - Track and Toilets	\$ 150,000	\$ -	\$ 700,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pipeline Track Renewal Works	\$ -	\$ -	\$ -	\$ 50,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -
Pipeline Trail - Fern Tree Park Master Plan	\$ -	\$ 500,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Shelter - Entry to SMA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 70,000	\$ -	\$ -	\$ -	\$ -
The Slides Connector Track	\$ 55,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Springs Public Facilities Upgrade (Part Of GSW)	\$ -	\$ -	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Great Short Walks - Springs Feeder Tracks	\$ -	\$ 210,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Queens Domain Program</b>	\$ 867,874	\$ 1,626,000	\$ 1,430,000	\$ 250,000	\$ 1,250,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
City to Gardens Way	\$ 100,000	\$ -	\$ 400,000	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Domain Paid Parking area - improvements to footpath and lighting	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Domain Summit Facilities	\$ 50,000	\$ 250,000	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -
Queens Domain Master Plan - Beaumaris Zoo Precinct Planning	\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Queens Domain Joggers Loop Upgrade	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -
TCA Change Rooms (Visitor's Change Rooms) Minor Internal Refurbishment and Future	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TCA Concrete Grandstand Demolition	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TCA Hobart Football Club Facilities Refurbishment Design	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TCA Ground playing surface replacement	\$ -	\$ 1,276,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cenotaph Regatta Grounds - McVilly Drive Carpark	\$ 367,874	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Other Transforming Hobart Projects</b>	\$ 5,776,798	\$ 3,840,000	\$ 3,225,000	\$ 12,025,000	\$ 2,975,000	\$ 1,850,000	\$ 1,850,000	\$ 850,000	\$ 850,000	\$ 850,000
<b>Corporate Property</b>	\$ 1,085,000	\$ 200,000	\$ 150,000	\$ 1,350,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -
City Hall Renewal - Major Refurbishment	\$ 400,000	\$ 200,000	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -
Town Hall - Lift Access to Stage & Amenities DDA Renewal	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Town Hall Macquarie Street - Exterior Facade Lighting Upgrade	\$ 235,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Council Centre - Gateway Visitor Centre (Ground Floor Council Centre)	\$ -	\$ -	\$ 150,000	\$ 1,350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Community Development</b>	\$ 210,000	\$ 265,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Elizabeth St Mall Information Booth Renewal	\$ -	\$ 265,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mt Nelson Community Hall Toilet Upgrade	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Late Night Economy Toilets	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Solid Waste Management</b>	\$ 201,880	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commercial Waste & Recycling Receiving Facility	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -
Waste Management Centre Walkway	\$ 51,880	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Parks and Bushland Infrastructure</b>	\$ 560,000	\$ 675,000	\$ 175,000	\$ 1,775,000	\$ 1,175,000	\$ 50,000	\$ 1,050,000	\$ 50,000	\$ 50,000	\$ 50,000
Cascade Gardens Car Park	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hobart Rivulet Linear Park - Vicinity of Anglesea Street	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ -	\$ -	\$ -	\$ -
New Town Rivulet Linear Park Plan - Stage 1	\$ -	\$ -	\$ -	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Town Rivulet Linear Park Plan - Stage 2	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Queens Domain cycleway connect to city via Macquarie Point	\$ -	\$ -	\$ -							