



Kingborough

# LONG TERM ASSET MANAGEMENT PLAN

Updated June 2018

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# EXECUTIVE SUMMARY

## Introduction

In 2015 Council developed and adopted its Strategic Plan which set out Council's vision, values and future directions. Council's vision is for Kingborough to be:

"A vibrant, diverse and connected community, with well managed natural and physical assets and a wide range of economic and lifestyle opportunities."

To assist Council in achieving this vision, a number of outcomes and strategies were developed. The following outcomes link Asset Management Plans to Council's vision and future directions:

- 2.1 Strategic plans provide the necessary guidance to manage future developments and infrastructure needs.
- 2.2 Community infrastructure is enhanced, replaced and maintained.

The Long Term Asset Management Plan sits within the strategic planning framework and documents in broad terms the principles and directions for the management and maintenance of Council's asset base.

An Asset Management Policy (Policy 3.15) is the overarching document that defines the roles and responsibilities in respect to the management of Council's assets and provides the link between this document and Council's Strategic and Operational Plans.

## Overview

Kingborough Council owns and is responsible for the management, operation and maintenance of a diverse asset portfolio that provides services to the community. Individual Asset Management Plans (IAMP's) have been developed to ensure that Council continues to provide effective and comprehensive management of its infrastructure asset portfolios. IAMP's have been completed for the following asset portfolios:

- Roads and footpaths – Section 2
- Stormwater – Section 3
- Buildings – Section 4
- Bridges and jetties – Section 5
- Parks and Reserves – Section 6

These plans outline Council's desire to operate and maintain its asset portfolio to achieve the following objectives:

- ensure the asset base contributes to the strategic objectives by providing the required levels of service;

- ensure infrastructure is maintained at a safe and functional standard as set out in the IAMP's; and
- ensure the inspection and maintenance plans for all Council assets are sufficient to meet the legislative and operational requirements in order to deliver the required levels of service to the community.

This summary document brings together the key aspects of the IAMP's into a single, user-friendly format.

## Asset Base

The investment in Council's portfolio of infrastructure assets has occurred over a number of decades. Ongoing investment has created an asset base which has a current written down value of \$477M. The split between asset classes as at December 2017 is illustrated below.

Portfolio	Replacement Value (\$'M) Million)	Accumulated Depreciation (\$'M)	Written Down Value (\$'M)
Roads and Footpaths	433	216	217
Stormwater	96	28	68
Bridges	29	13	16
Buildings	73	16	57
Land	53	0	53
Land under roads	57	0	57
Plant and equipment	9	4	5
Other	10	6	4
<b>Total</b>	<b>760</b>	<b>283</b>	<b>477</b>

The above reflects the componentisation of the roads and stormwater asset classes undertaken in 2016/17, which has provided for a more accurate appreciation of the financial position of these asset classes.

## Asset Condition

Infrastructure assets owned by Kingborough Council are generally considered to be in reasonable condition.

While the age and condition of individual assets within each class varies, consistent asset renewal and maintenance investment over a long period of time has ensured that the asset base overall is in good condition and is considered appropriate for the current level of service which they are expected to provide. Notwithstanding this some sub asset class areas have historically had less attention than desired and a backlog of works exists in these areas, in particular, road seals.

The table below provides a summary of the asset condition across infrastructure classes in the form of percentages of remaining life. This format provides an easy comparison across asset classes, however it should be noted that it provides an indication only of the actual condition of assets.

Nevertheless, ongoing condition audits and assessments provide up to date information on the asset base which enable the remaining life to be updated regularly. It is intended to improve this in the future by extending condition assessments to more asset types and doing more spot inspections on underground assets.

Portfolio	Remaining Life
Roads and Footpaths	67%
Stormwater	72%
Bridges	67%
Buildings	77%
Other	67%
<b>Total</b>	<b>67%</b>

As part of the condition rating process, assets can be categorised based on a simple numerical rating system. Asset condition is measured using a 1 to 5 rating system as described below:

Condition Index	Community Rating Scale	Condition Description
<b>1</b>	New/Excellent	New asset or providing a very high level of service.
<b>2</b>	Good	Good condition with no indicators of any future obsolescence and providing a good level of service
<b>3</b>	Fair	Aged and in fair condition providing an adequate level of service. No signs of immediate or short term obsolescence.
<b>4</b>	Poor	Will need to renew, upgrade or dispose in near future. Is reflected via inclusion in the 5 year Capital Works Plan.
<b>5</b>	Very Poor	Below an acceptable level of service. Requires renewal/upgrade immediately within the following year or so.

Council has invested significantly in asset management systems, independent auditing and asset data capture to build a clear picture of Council's asset stock and condition. In 2017, a new asset management system was purchased as well as a predictor model to assist in the development of future plans. Council is also a member of the National Asset Management Strategy (NAMS) asset management program which was developed to facilitate high level asset management skills and documentation in Local Government.

Council also has independent audits undertaken on various asset types that provide an external reference and risk management component to Council's asset management activities.

Examples of the data captured to date include:

- Field asset attribute data
- Maintenance and capital activity actions
- Condition monitoring information
- Vested assets from development

Examples of independent audits include:

- Pavement Management Systems for road surface condition information
- GR Webb Consulting for pavement strength testing
- AUSSPAN for bridge condition inspections

The development and implementation of a Pavement Management System to further develop the current performance and predicted performance of the local road network is an example of Council's program of continuous improvement to its asset data and resulting capital and operational planning.

## **Asset Capacity and Growth of the Municipality**

Many of the required capital projects and need for increased maintenance are driven by capacity constraints and the relatively fast pace of expansion of the municipality. This continues to put strain on Council's available budgets and is a major driver of the projected spends outlined in Council's LTFP. Identifying and quantifying the ongoing and future costs is a challenge but is reflected in work Council Officers have undertaken in areas such as development of the stormwater rate and realignment of maintenance budgets. Work will continue on better quantifying these amounts through development of initiatives such as improved flood modelling allowing for future development within the municipality and service level standards for our maintenance activities.

## **Financial Projections**

Financial projections for maintenance and capital renewal costs have been completed for all infrastructure classes. Maintenance cost estimates assume the asset is maintained to provide its current engineering levels of service over the expected life of the asset, while renewal costs estimate the expected capital expenditure required to replace the asset at the end of its useful life.

The average projected capital renewal expenditure for infrastructure over the next 10 years is approximately \$8.2M (unadjusted for inflation). The funds available through the Long Term Financial Plan for the renewal of infrastructure assets is \$7.0M based on funding 80% of current depreciation levels.

Projected total annual maintenance expenditure over the next 10 years is approximately \$4.7 million, subject to CPI increases.

## **Future Demand**

Council's fundamental role is to provide services to the community and is a critical contributor to ensuring sustainable and well serviced communities.

There are many factors that affect future demand for assets including population change, changes in demographics, seasonal factors, vehicle ownership, consumer preferences and expectations, economic, agricultural practices, climate change, environmental awareness, etc. Future demand for assets may be for both improved existing assets and the need for upgrade or new assets.

Issues such as changing demands for particular services, changing mixes in the balance between public and private service provisions and changing community expectations of service levels, all affect the need for assets.

Future development is a major factor in the need to provide new and improved assets and particularly in existing areas where large amounts of infill development can occur.

The effects of climate change and potential sea level rise, are already being considered in Council's infrastructure planning, particularly with coastal assets. Kingborough has a number of low lying coastal settlements which, given the 100 year sea level rise projections, will be severely affected by coastal erosion, shoreline recession, increased water tables and inundation.

These impacts may result in loss of property which has social impacts, but also Council's infrastructure in these zones will require replacement or relocation which will have a significant impact on financial sustainability.

These impacts on Council's infrastructure services will be specifically considered as part of the Annual Plan and budget process.

## Levels of Service

Each asset class discussed in this LTAMP have community and technical levels of service which govern the management practices, expenditure, maintenance and operations associated with them. These levels of service are not discussed in this over-arching summary but are part of the individual Roads, Bridges, Stormwater, Buildings and Parks and Reserves asset management plans.

## Conclusion

Asset Management Plans are a first step towards an integrated management program for Kingborough Council's assets and will be updated annually as part of the Annual Plan and Budget process.

The actions resulting from the Infrastructure and Asset Management Plans include continuous improvement of asset management practices, provision of financial forecasts for inclusion in the Long Term Financial Plan, budget allocations and ongoing improvements of the plans to ensure accurate reflection of the asset portfolios and contemporary asset management practices.

Developments since the last update of the Long Term Asset Management Plan include componentisation of the road and stormwater asset classes and future developments include componentisation of building assets, improved condition assessments and improved knowledge of future capacity constraints.

# ROAD AND FOOTPATH NETWORK

## Asset Information

Kingborough's roads and footpath network comprises road pavements, wearing surface (seal), footpaths, kerb and channel and other minor infrastructure such as pedestrian refuges and islands.

Council provides a road network in partnership with the Department of State Growth (DSG) to ensure that Kingborough has an extensive transport network and is accessible, safe and efficient for motorists, cyclists and pedestrians. The network includes the Bruny Island Ferry service which links the mainland to the Council and State owned road network on the island.

Kingborough Council also manages a major network of paths and cycleways which provide pedestrian and cyclist linkages and trafficable roadside interfaces. Associated with this network are kerb and channel, traffic islands and median assets which provide delineation, pedestrian refuge and landscaping to the road and footpath network.

Kingborough has a mix of sealed and unsealed roads with most major settlements having a completely sealed road system. The unsealed road network is predominantly in the rural areas and extends to the municipal boundaries. The most predominant sealed surface type is Spray Seal which is 80% of the total sealed road network.

The assets covered by this asset management plan are shown below.

Road Type	Road Length (km)
Spray Seal	178
Asphalt	102
Unsealed	268
<b>Total</b>	<b>548</b>
Footpath Type	Footpath Length (km)
Concrete	162
Asphalt	32
Others	17
<b>Total</b>	<b>211</b>

A brief description of each class of asset is presented below.

<b>Sealed Roads</b>	Urban and rural roads with a bitumen surface typically spray seal (two coat seal) or asphalt.
<b>Unsealed Roads</b>	Mostly rural roads formed and surfaced with imported granular material.
<b>Footpaths and Shared Paths</b>	Paths to cater for pedestrian and cycle movements within road reserves, constructed with a mix of concrete, hot mix and gravel surfaces.
<b>Kerb and Channel</b>	Typically constructed of concrete on the edge of sealed roads to formalise the traffic corridor and convey surface stormwater to the underground pipe drainage network.



## Condition Summary

A review of the actual lives being achieved, industry research and the likely renewal actions that would be undertaken on the individual components, revealed that it is commonly accepted that each component of a road has a varied useful life as follows:

- Seal: 15 years
- Base: 60 years
- Sub-base: 120 years
- Formation (Sub-grade)/Greenfield costs: Infinite

This position is supported by Austroads guide AP-144-00 Valuation of Road Infrastructure Assets in Australia and New Zealand notes "Road assets, especially pavements, can be restored to as-new or near-new condition (or service potential) through physical treatments such as rehabilitation."

The actual maintenance renewal intervals for the gravel road network are subject to a number of influencing factors such as the traffic volume and type, environmental conditions and required levels of service. The intervals are adjusted according to these factors and are accounted for in renewal planning.

The remaining life of the sealed road and footpath assets is based on the age of the asset linked to projected deterioration models sourced from asset material and condition information obtained from rolling condition audits. These audits provide an update to the expected life of the asset which is then used to amend estimated replacement/renewal requirements.

The average remaining life of Council's road assets are:

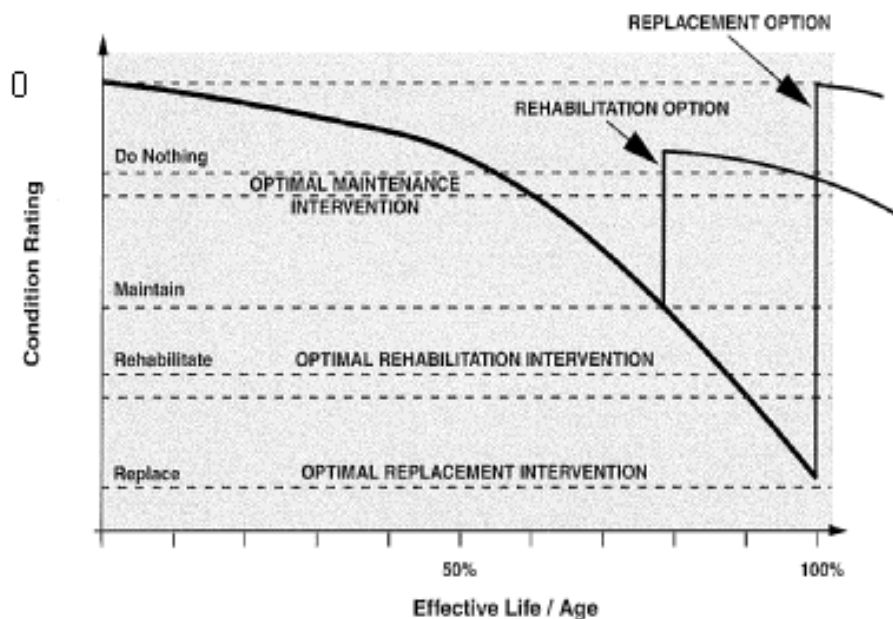
Asset Type	Remaining Life	Condition Summary (Average)
Sealed roads	65%	2.6
Unsealed roads	71%	1.1
<b>Total</b>	<b>67%</b>	<b>2.1</b>

## Renewal Summary

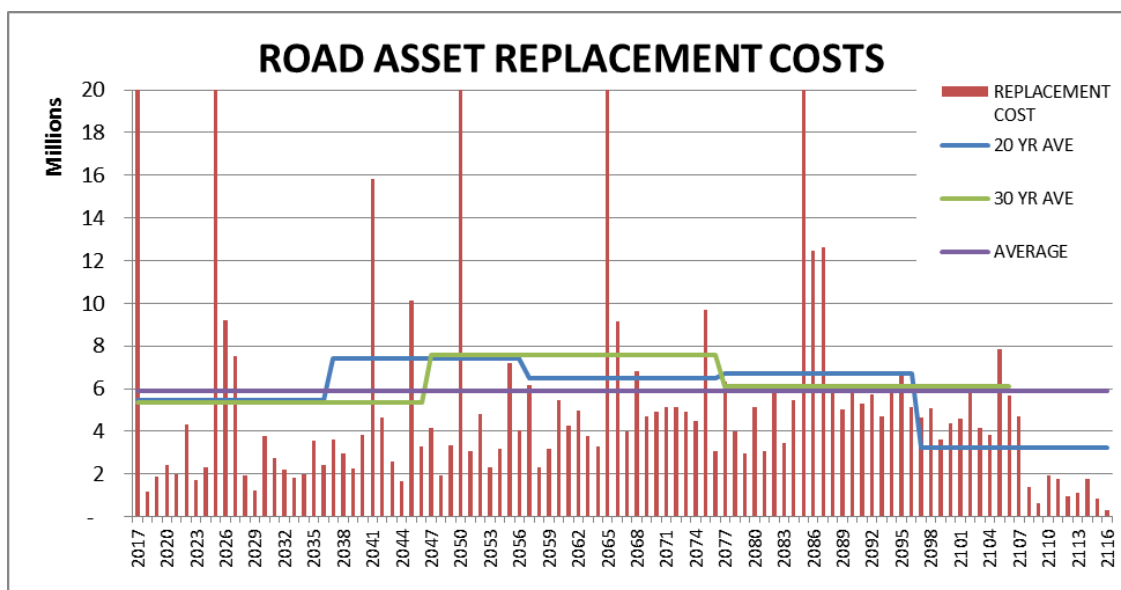
A model for the lifecycle of sealed road pavements is presented below and highlights the maintenance and renewal stages of a road pavement life.

In the "Do Nothing" phase, the asset deteriorates slowly and maintenance is generally not required. In the "Maintain" phase, activities will need to be performed to minimise continued deterioration. In the "Rehabilitate" or "Renewal" phase, activities are undertaken that restore the asset to a condition close to that of the original.

The importance of the timing for intervention for renewal of assets is paramount. If renewal activities are not undertaken in a timely manner, the condition of the asset may deteriorate rapidly to failure, and the cost of reconstruction, may be many times that of renewal/remedial activities.



Under the 'replacement' option, replacement costs for existing road assets averages \$6M (unadjusted for inflation) per year over 90 years when considering the overall renewal profile over one cycle of their useful lives (refer graph). However, due to constraints in funding capacity, the average available fund for the next 10 years is approximately \$5M.



The replacement graph provides a high level indication of the spend required over the long term, however for the snapshot window of the next 10 years consideration also needs to be given to backlog of works associated with previous under investment in areas of the asset stock and also the need to replace/upgrade assets early than their life span to take into account pressures associated with development.

The development of a robust 10 year Capital Works Program is a delivery priority to provide Council with the ability to manage long term financial commitments and also to cater and adequately manage large, future infrastructure renewal investments.

As part of the asset management development process, Council must undertake regular full condition audits for the road and footpath network. These allow valid assessments and comparisons be made to prioritise capital works and manage risks associated with defects.

Council currently has a 5 year capital works program which reflects priority capital spend within a 5 year timeframe.

The peaks in the above graphs are indicative of assets with an assumed construction date. For example, after the 1967 bush fires, many records were lost. As a result some assets were assigned an assumed construction date. Also a number of road assets have a zero life and therefore are due for renewal in 2017. Council is undergoing a continuous process of data review to more accurately define the construction dates of these assets which will be refined by field condition assessment and modelling to determine remaining life.

## Maintenance Summary

Maintenance refers to works undertaken to address minor defects such as pothole patching, edge-break patching, minor kerb repair works or footpath grinding. These treatment works are undertaken to keep Council's Road assets in a safe and operational condition, but not necessarily to improve the overall condition of these assets.

Typical defects used to determine intervention levels include:

- **Cracking:** Crocodile and linear related to pavement and surface fatigue.
- **Pavement defects:** related to pavement deformities in localised areas such as shape loss and sub grade movements, local rutting, shoving and deformities.
- **Ravelling:** related to asphalt age/fretting and fatigue.
- **Local Surface defects:** Related to minor surface deformities and groups of potholes, delaminating.
- **Stripping:** Loss of stone from spray seal surface.
- **Flushing:** Excess bitumen pumping on surface of spray seals.
- **Kerb and gutter:** alignment, distortion, cracking, shape loss, structural failures, roll backs and channel deficiencies.
- **Footpath:** cracking, stepping, distortion and tree root defects.

Maintenance includes reactive, planned and cyclic maintenance work activities. Reactive maintenance work is typically 35% of total maintenance expenditure. Planned maintenance work is typically 30% of total maintenance expenditure. Cyclic maintenance work is typically 35% of total maintenance expenditure.

If road assets are left to deteriorate (i.e. sufficient capital expenditure is not allocated), then the amount of distresses being fixed under routine maintenance will increase and hence the routine maintenance expenditure required will also increase. Equally, if the condition of these assets improves then the routine maintenance expenditure required will decrease.

The level of maintenance budget for road assets in 2017/18 is below.

Road and Footpath Maintenance	Amount
1.40.200.0000 Agricultural Drains	20,000
1.40.201.0000 Asphalt Corrections	140,000
1.40.201.0000 Pedestrian Crossing Maintenance	10,000
1.40.206.0000 Crossover Repairs	12,000
1.40.208.0000 Culvert Cleaning	55,000
1.40.210.0000 Culvert Replacement	50,000
1.40.212.0000 Dead Animal Removal	7,000
1.40.214.0000 Drainage - Easements	30,000
1.40.216.0000 Footpath Inspection	20,000
1.40.218.0000 Footpath Repair	190,000
1.40.222.0000 Guide Posts	70,000
1.40.224.0000 Handrails & Guardrails	65,000
1.40.225.0000 Illegal Dumping of Rubbish	12,000
1.40.228.0000 Kerb & Gutter Maintenance	65,000
1.40.229.0000 KWS Site Maintenance	20,000
1.40.231.0000 Linemarking	10,000
1.40.234.0000 Sealed - Major Repairs	150,000
1.40.239.0000 Sealed - Minor Repairs	280,000
1.40.240.0000 Sealed - Edge Break Repairs	100,000
1.40.241.0000 Sealed - Pothole Repairs	120,000
1.40.242.0000 Sealed - Shoulder Reinstatement	170,000
1.40.243.0000 Sealed - Shoulder Grading	110,000
1.40.245.0000 Sealed - Table Drain Maintenance	160,000
1.40.246.0000 Unsealed - Maintenance Grading	280,000
1.40.247.0000 Pothole Patching	120,000
1.40.248.0000 Unsealed - Table Drains	140,000
1.40.249.0000 Unsealed - Road Surface Repairs	100,000
1.40.253.0000 Roundabout Maintenance	10,000
1.40.254.0000 Retaining Walls	12,000
1.40.256.0000 Roadside Slashing	240,000
1.40.258.0000 Signs	95,000
1.40.260.0000 Storm Damage	100,000
1.40.262.0000 Sweeping	132,000
1.40.265.0000 Traffic Island Maintenance	10,000
1.40.266.0000 Tree Removal & Maintenance	185,000
1.40.272.0000 Weed Spraying	60,000
Total	3,350,000

## Road and Footpath Summary

Kingborough Council has an integrated network of roads and footpath infrastructure which provide the pedestrian, cyclist and vehicle network requirements for the municipal area. Council's fundamental role is to provide services to the community and its road assets are a critical contributor to ensuring connected and well serviced communities. Overall the network is in good condition and the asset class is providing an adequate level of service for the community.

There are a number of significant spikes in the road asset replacement costs graph. To accommodate this, Council will need to bring forward some of these renewals in the years prior. Historical under

investment in asset renewal in areas such as reseals and resheeting has left a backlog of work that will require an injection of funds over the next 10 years, resulting in the need for increased investment in the road asset stock.

A maintenance expenditure of approximately \$3.4M annually is also necessary to maintain the current service level of roads and footpaths within Kingborough.

## STORMWATER

### Asset Information

The stormwater network is designed to capture and convey stormwater flows, provide runoff management and flood mitigation responsibilities for the municipal area. The network is made up of road reserves, underground stormwater pipes, open channels, creeks, waterway detention basins and gross pollutant traps which capture, treat and convey stormwater.

The system of pits, underground pipes, open channels and minor creeks are classified as the minor system and convey stormwater runoff from minor storm events (rainstorm events that occur on average once every 10 or 20 years). This system is augmented by the major system of major creeks, waterways and rivers are used to convey major storm events that produce flows that are in excess of the capabilities of the minor system.

During these high flow events road reserves and park land areas will provide overland flow paths and be inundated with stormwater for short periods of time in order to reduce the risk to adjacent properties from flooding.

Approximately 66% of the replacement value of Council's storm water infrastructure has been constructed with reinforced concrete. The remaining 33% has been constructed with uPVC or high density polyethylene (HDPE).

The stormwater infrastructure covered by this asset management plan is shown below.

Asset Type	Length or Quantity
Box Culverts	1.26 km
Grated Trench	293 m
Pipes	255.19 km
Subsoil Drains	15.42 km
Open Drains	17.72 km
Grated Pits	2,548 Units
Side Entry Pits	1,182 Units
Headwalls (Inlet/Outlet)	1,714 Units
Gross Pollutant Traps (GPT's)	8 Units
Detention Basins	2 Basins

## Condition Summary

The remaining life of stormwater drainage assets is based on their age and condition deterioration since installation. The average remaining life of stormwater assets is 72% of expected life which indicates that the network is relatively young and in good condition.

The average remaining life of stormwater is shown below.

Asset Type	Remaining Life	Condition Summary
Box Culverts	71%	3
Grated Trench	70%	2
Piped Reticulation	71%	2
Subsoil Drains	88%	2
Open Drains	74%	2
<b>Average</b>	<b>72%</b>	<b>2</b>

## Renewal Summary

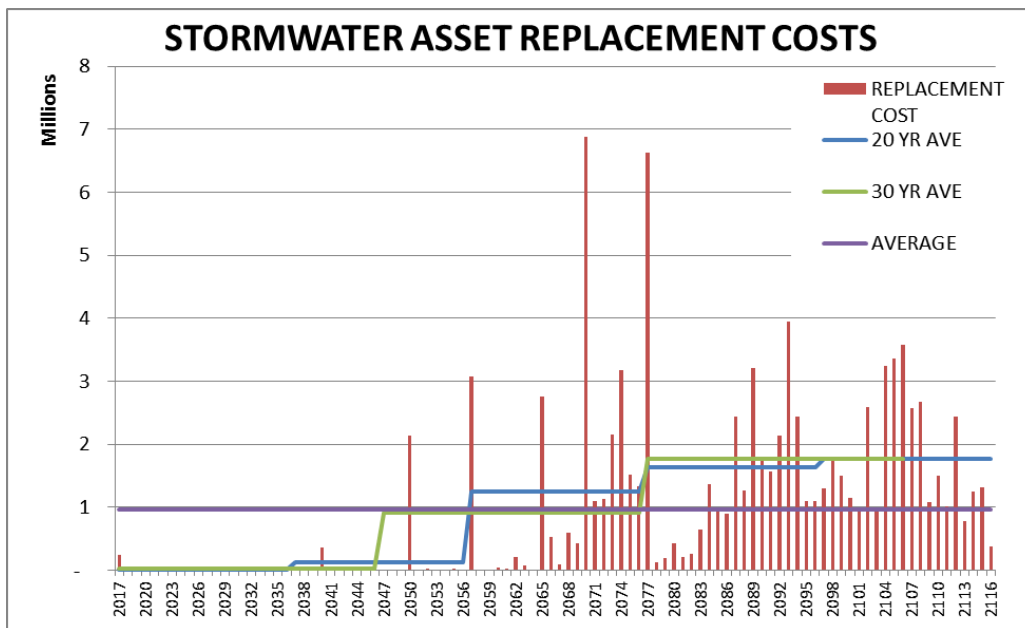
The asset renewal profile for stormwater assets has been developed by modelling the expected asset remaining life based on the known age of the pipe and projected condition. The projected renewal expenditure for drainage assets over the next 100 years is shown in the following graphs.

Over the 100 year lifecycle, renewal costs for stormwater drainage assets are on average \$1.0M per year. Renewal expenditure over the next 10-30 years is lower than the lifecycle average as the network is relatively young, in good condition and as such does not require significant immediate attention.

As part of Council works planning and programming, there is often an opportunity to bring forward stormwater renewal works which coincide with street resurfacing renewal requirements to reduce cost liability for stormwater renewal.

Whilst there is little projected growth, the impacts on existing reticulated infrastructure from development undertaken to date is considered to be high. With the rapid infill development of area like Tarooma and Blackmans Bay, there are now capacity limitations in much of the network.

Council is embarking on a project to hydraulically model the entire reticulated stormwater network to identify upgrade and renewal projects to address some of these limitations. This will result in expenditure on the upgrade of certain assets to provide increased levels of flooding protection.



The above graph shows the future capital renewal requirements based on the expected life of each stormwater asset. The average renewal is \$1.0M, while the blue line indicates the average expenditure split into 20 year cycles and the green line the 30 year average cycle expenditure.

Expenditure on the upgrade of stormwater assets to meet capacity requirements will be on top of the renewal amount.

### Maintenance Summary

Proactive maintenance programs are required to prevent blockages in pipes and inlets leading to surcharge or flooding, collapse of pipes and/or trenches and minimise contaminated outflows.

The level of annual maintenance budget for 2017/18 is represented below:

Stormwater Maintenance	Amount
1.41.280.0000 Inspection & Site Checks	30,000
1.41.282.0000 Manhole Construction	65,000
1.41.284.0000 Pit Cleaning	65,000
1.41.286.0000 Pipe Cleaning	70,000
1.41.290.0000 Repairs of Pipes	30,000
1.41.292.0000 House Connections	20,000
1.41.294.0000 Cleaning Gross Pollutant Traps	50,000
<b>Total</b>	<b>330,000</b>

### Stormwater Drainage Summary

Kingborough Council has a fully developed stormwater network which provides stormwater management and flood mitigation control for the municipality. Over the next 10 years there is a lesser requirement for asset renewal and the timing of non-critical renewal requirements can be linked to associated road and footpath renewal projects to minimise disruptions and inconvenience to the public.

There are will be a continuing number of capacity driven renewal or upgrade projects, however the full magnitude of the impact will not be available until all the hydraulic modelling has been undertaken. The annual renewal/replacement allocation should therefore be considered with this in mind.

Overall the projections for the next 10 years for Asset Renewal should be consistent with the 90 year renewal requirement average being approximately \$1.0M per annum. Expenditure on the upgrade of the network will increase this figure to well beyond the \$1.0M in some years.

## BUILDINGS

### Asset Information

Kingborough Council owns a diverse property and building portfolio which comprises of operational facilities and community facilities.

Buildings with a replacement value greater than \$500,000 are detailed below and represent greater than 75% of the total buildings replacement value.

Asset Type	Asset Description	Total Replacement Value	Remaining Life (Years)
Sports Facility	Main Stadium	7,847,500	67
Civic Centre	Civic Centre	5,597,280	87
Sports Facility	Twin Ovals Complex	4,637,524	96
Clubrooms	Twin Ovals Sports Pavilion	3,189,205	98
Sports Facility	KSC Stadium Netball Courts	2,355,868	97
Sports Facility	Kingborough Gymnastics Centre	2,167,932	96
Sports Facility	Indoor Cricket Stadium	1,738,800	67
Miscellaneous Structures	Waste Transfer Station - BC & S	1,678,295	57
Miscellaneous Structures	Barretta Compactor	1,589,452	22
Community Hall	Senior Citizens Club	1,159,240	67
Community Hall	Alonnah Hall	950,725	77
Sports Facility	Table Tennis Centre	912,990	67
Community Hall	Kettering Hall	883,070	67
Administration/Service Centre	Family Day Care Centre	795,150	67
Community Hall	Kingston Beach Hall	773,200	57
Clubrooms	Lightwood Park Club House	675,500	67
Miscellaneous Structures	Barretta Saw Tooth	667,536	97
Community Hall	Taroona Hall	594,150	67
Community Hall	Woodbridge Hall	586,190	57
Community Hall	Margate Hall	583,125	57
Clubrooms	Alzheimers Centre	575,400	72
Amenities	Snug Oval Change Rooms	569,930	67
Administration/Service Centre	Depot Offices and Amenities	545,421	67
Community Hall	Blackmans Bay Hall	542,190	77
Clubrooms	Kingston Beach Football & Cricket Club	540,000	67
Clubrooms	Fusion Clubrooms	536,300	67
Clubrooms	Sherburd Oval Cricket club	507,640	57
Community Hall	Dennes Point Hall Upgrade	506,635	96



## Condition Summary

Council undertakes regular condition inspections on all Council buildings on a three month interval. The inspections focus on most aspects of the structure including legislative compliance (fire systems, emergency lighting etc), building structure and fabric, electrical services, hydraulic services vertical transport (lifts) and building amenity (fit outs, carpets, fittings etc).

Council buildings are constructed with long lived materials, including concrete, brick and/or steel with independent lives in the order of 100 years or greater.

Maintenance programs have and will continue to ensure maximum useful lives are achieved. It is Council's view effective maintenance programs provide the most economic benefit and financial sustainability in light of high replacement values. Council is proactively looking to improve these processes to ensure the maximum useful life of assets.

## Renewal Summary

An analysis of the remaining useful lives of Council buildings highlighted that over the next 10-25 years the complete renewal and replacement of buildings will be minimal. However it is expected that building maintenance costs will increase over time.

## Maintenance Strategy

Proactive maintenance programs are required to prevent unnecessary deterioration of buildings. Current annual building maintenance budgets are detailed below.

<b>Building Maintenance</b>	<b>Amount</b>
1.56.164.6170 Building Maintenance - CC	60,000
1.56.164.6182 Cleaning - CC	12,000
1.56.164.6274 Light & Power - CC	62,750
1.56.480.0000 Hall Scheduled Maintenance	104,792
1.56.482.0000 Hall Unscheduled Maintenance	61,100
1.56.483.0000 Hall Cleaning	27,545
1.56.485.0000 Hall Toilet Repairs	12,000
1.56.488.0000 General Building Maintenance	132,264
1.56.489.0000 Asbestos Audit	0
<b>Total</b>	<b>472,451</b>

## Buildings Summary

Kingborough Council has a diverse portfolio of building assets which provide accommodation to its staff and provide facilities throughout the municipal area. The recently constructed buildings are in fair to good condition and there is currently no backlog of deferred renewal works.

Pre-war assets that were vested to Council are a priority for renewal and will require the majority of building capital outlay and maintenance allocations to ensure serviceability. This will be prioritised and staged through Council's capital works planning process.

Renewal expenditure is minimal over the next 10-20 years given the relatively young age of the majority of buildings, particularly those of high value. Most renewal expenditure will be on minor items such as hall and facilities upgrades.

Projected annual maintenance costs for the next ten years will commence at approximately \$0.47M and is expected to increase annually between 3%-6%.

## BRIDGES & JETTIES

### Asset Information

Bridges constructed with concrete and steel account for over 96% of Council's replacement value of bridges. The remaining 4% are timber bridges, and Council's asset replacement program for bridges has identified that the remaining timber bridges will be replaced within the next 5 years.

Within Kingborough there are 17 boat ramps with an average replacement value of approximately \$84K. There are also 9 jetties and excluding the Alonnah Pontoon (\$3.606M) the average replacement value is approximately \$112K.

### Condition Summary

Based on the construction type, environmental conditions, traffic volumes and loadings present in Kingborough, independent structural auditing by AUSSPAN and industry standard research (refer Austroads AP-R235 Remaining Life of Road Infrastructure Assets: An overview) it is reasonable to assume a bridge constructed with concrete and steel has an estimated useful life of 100 years. Again Council's maintenance program for bridges has and will continue to ensure useful lives are maximised and bridges are able to carry legal loadings within safety parameters.

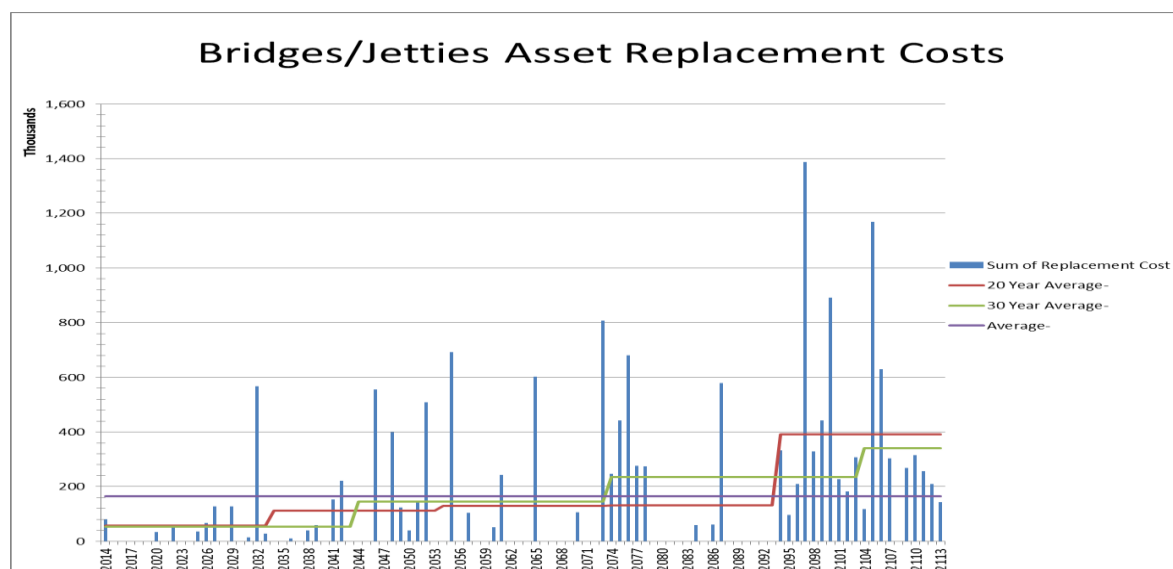
Boat ramps have a useful life of 100 years and jetties 50 years. Excluding the Alonnah Pontoon which is fully written down the average remaining useful life for jetties is 78%.

Asset Type	Remaining Life	Condition Summary (Average)
Boat Ramp	72%	2
Jetty	78%	2
Box Culvert	62%	2
Multi Plate Arch	68%	3
Concrete Bridges	78%	2
Pipe Culvert	59%	2
Pontoon	24%	4
Timber Bridge concrete abutments	53%	2
Timber Bridge timber abutments	65%	2
<b>Total</b>	<b>67%</b>	<b>2</b>

## Renewal Summary

The asset renewal profile bridges and jetties have been developed by modelling the expected asset remaining life based on the known age of the asset and projected condition.

Renewal expenditure over the next 10-30 years is lower than the lifecycle average as the assets are relatively young, in good condition and as such does not require significant immediate attention.



## Maintenance Strategy

Current annual bridge and Jetty maintenance estimates are detailed below.

<b>Bridge Activities</b>		
1.42.202.0000 Boat Ramps		16,000
1.42.302.0000 Bridge Handrail Repairs		5,000
1.42.306.0000 Bridge General Maintenance		70,000
1.42.310.0000 Bridge Inspections		55,000
1.42.312.0000 Jetty Maintenance		25,000
<b>Total Bridge Expenses</b>		<b>171,000</b>

## Bridge Summary

Council bridges are in good to excellent condition. The four big ticket items on the horizon are the Alonah Pontoon rehabilitation (\$500K), the Browns River footbridge rehabilitation (\$400K), the Snug Beach footbridge rehabilitation (\$150K) and Barnes Bay jetty rehabilitation (\$210K).

Renewal expenditure is minimal over the next 10-20 years given that the majority of timber bridges have recently been replaced with concrete structures.

Projected average annual maintenance cost is \$180K annually.

# PARKS AND RESERVES

## Asset Information

Kingborough has a large suite of Parks and Reserves assets which includes all street and park furniture assets, recreational elements (playgrounds, BBQ's etc) and other urban furniture items. These assets contribute to the amenity and user friendly aspect of the municipal area.

Council undertakes a range of internal and external inspection programs to monitor condition and comply with the relevant Australian Standards for equipment safety.

Examples of this include monthly monitoring of soft fall and equipment condition, quarterly compliance auditing and annual external engineering certification of all playground equipment.

The Parks and Reserves asset base has a current replacement value in excess of \$2M.

## Condition Summary

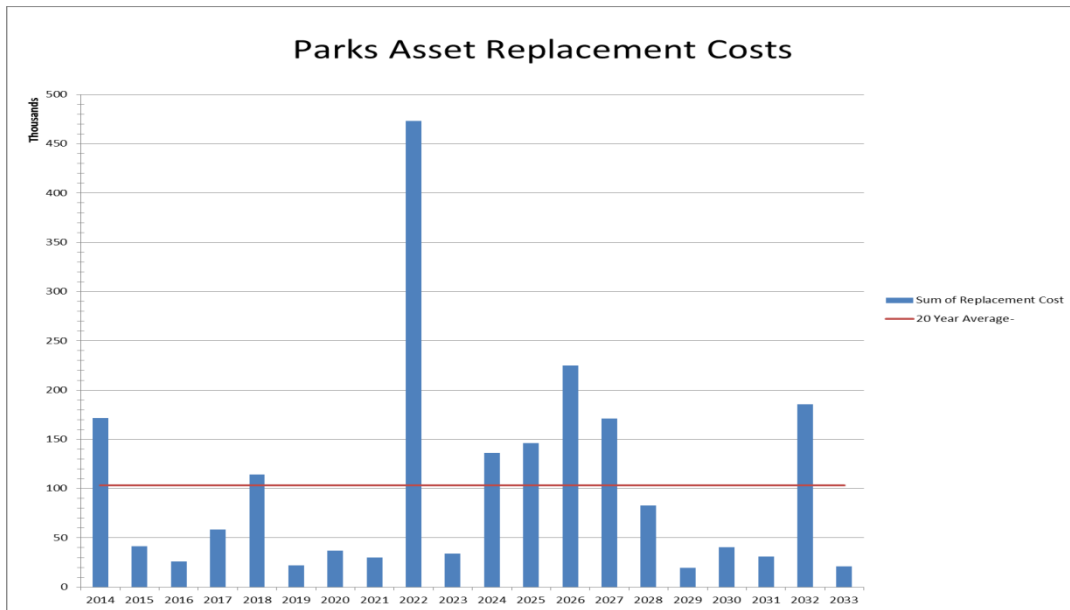
Remaining life of depreciated urban element assets (BBQ's, Playgrounds) are based on age (installation date) and condition audits. The average remaining life of depreciated urban element assets is 42%.

Asset Type	Remaining Life	Condition Summary (Average)
BBQ	20%	4
Feeding Platform	45%	3
Play Equipment	39%	3
Shelter	41%	3
Other	73%	2
<b>Grand Total</b>	<b>42%</b>	<b>3</b>

## Renewal Summary

The asset renewal profile has been developed by modelling asset remaining lives based on asset expected life, known installation dates and available condition information. The chart below shows replacements over a 20 year period as most assets in this class have relatively short lives.

Over the life of all Urban Element assets the projected average annual renewal expenditure for the next 20 years is \$0.11M.



## Maintenance Summary

For assets which are replaced on an ad hoc basis (seats, bins etc) an annual allocation determined from historical replacement rates has been applied to cover renewal costs.

Over the life of all urban element assets the projected average annual maintenance cost for the next ten years is \$330K per annum.

Reserves	Amount
1.56.490.0000 Playground Inspections	5,000
1.56.491.0000 Playground Maintenance	34,000
1.56.492.0000 BBQ Maintenance	24,000
1.56.493.0000 Graffiti Removal	5,000
1.56.494.0000 Public Toilet Cleaning	228,000
1.56.495.0000 Public Toilet Repairs	36,000
<b>Total</b>	<b>332,000</b>

## Parks and Reserves Summary

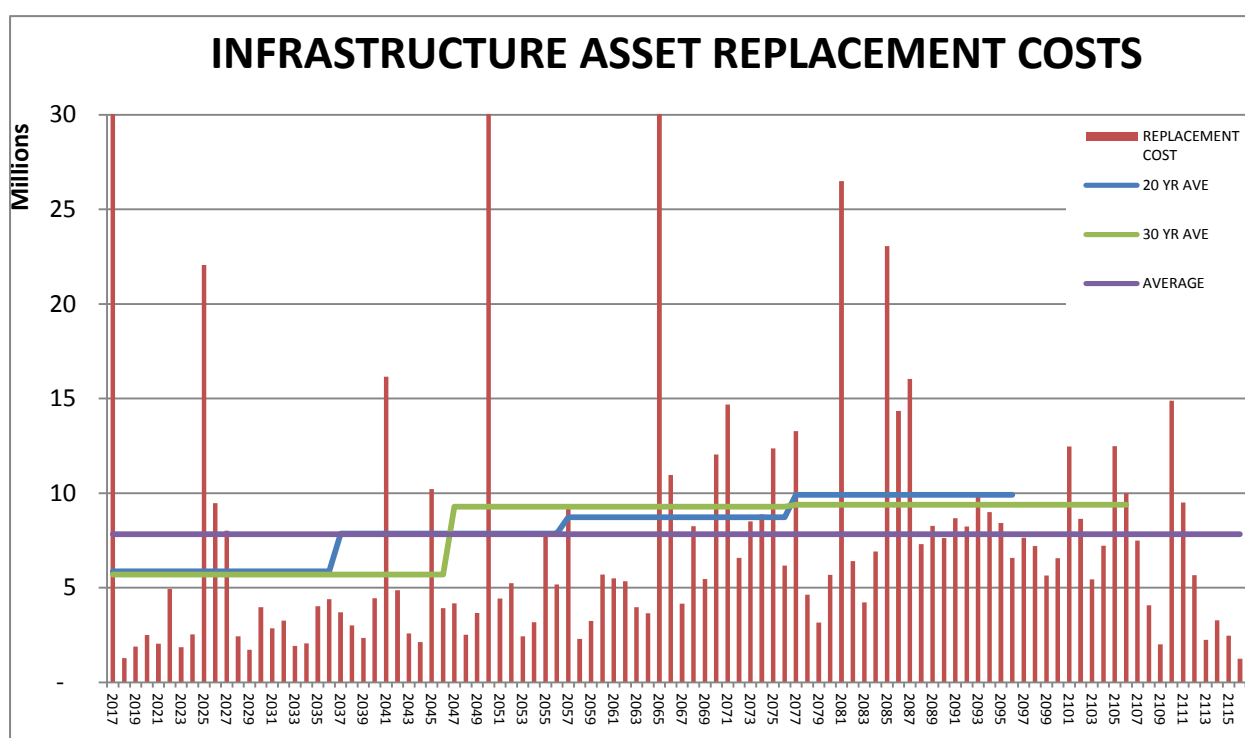
Council has a significant number of Parks and Reserves Assets which improve the amenity and experience of users. The majority of these assets are replaced in an ad hoc manner as their condition warrants. It is anticipated that expenditure over the longer term for Parks and Reserves will increase as additional users demand improved public amenity and experience within the municipal area.

# OVERALL FINANCIAL SUMMARY

Infrastructure and Asset Management Plans have been developed to ensure that Council continues to provide effective and comprehensive management of its infrastructure asset portfolios. The Asset Management Plans are separate documents to the LTFP. However a high level summary has been provided as the funding for the capital works program is generated through an effective LTFP.

The asset renewal profile for infrastructure assets has been developed by modelling the expected asset remaining life based on the known age of the infrastructure and projected condition. The projected renewal capital expenditure for infrastructure assets over the next 80 years is shown below.

The combined financial projections for all asset classes covered in this plan are detailed within the following graph. Over the next 10 years, the projection sits at an average rate of \$8.1M per annum, unadjusted for inflation. Due to constraints in available funding, Council have allocated 80% of required funding to the renewal of infrastructure assets at \$7.0M. This amount is included in the Long Term Financial Plan.



The graph illustrates there are peaks and troughs over the 80 year period representing the fluctuations in the annual value of expired infrastructure assets in any one year. Council's Asset Management Plans dictate that consistent annual capital spend is the most effective approach in maintaining existing infrastructure. The graph shows a number of peaks, mainly due to road asset renewals. Council should bring about the steady renewals of those assets in the preceding years where very little capital expenditure is indicated. By using this method, as the next generation of renewals come due, a levelling effect will appear in future modelling. Over the next 10 years a higher investment is required that will taper back to the long term average over time due to the need to address backlogs, in particular with road assets.

The asset management plans therefore indicate that over the next 10 years Council should be spending approximately \$8.1M (unadjusted for inflation) per annum on capital renewal. The available level of capital expenditure of \$7.0M for the renewal and rehabilitation of infrastructure assets is below the requirement and will require additional expenditure in future years to maintain infrastructure at acceptable levels.

Capital funding in excess of the \$7.0M for capital renewal purposes is available for new infrastructure projects. The Long Term Financial Plan estimates the potential capital spend on new assets over the next 10 years at \$1.0M per annum in today's dollars. The figure does not include expenditure on Kingston Park which is being funded through borrowings to be repaid through future land sales on the site.