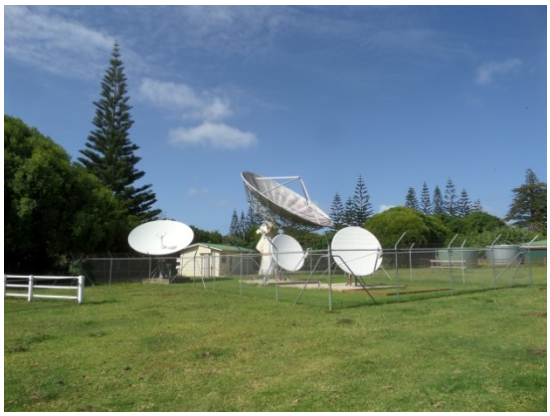
Norfolk Island Regional Council

Infrastructure Asset Management plan



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1.0 Executive summary

What is this plan about?

This asset management plan covers all Infrastructure assets that are owned by the Norfolk Island Regional Council and are used in the delivery of services to the people of Norfolk. This system are detailed in table 5.1

What is an Asset Management Plan?

Asset management planning is a comprehensive process to ensure services are delivered in a financially sustainable manner. Asset management plan details information about assets including actions required to provide an agreed level of service in the most cost effective manner. The Plan defines the services to be provided how the services are provided and what funds are required to provide the services

Why there is a funding shortfall?

Most of the Council's assets were constructed using Administration of Norfolk Island revenues or donations, often accepted without consideration of ongoing operation, maintenance and replacement needs.

Many of these assets are approaching the later years of their life and require replacement, services from the assets are decreasing and maintenance costs are increasing. Council's present funding levels are insufficient to continue to provide existing services at current levels in the medium term.

What options do we have?

Resolving the funding shortfall involves several steps:

1. Improving asset knowledge so that data accurately records the assets inventory at component level, bow assets are performing and when assets are not able to provide the required service levels,
2. Improving our efficiency in operating, maintaining, renewing the replacing existing assets to optimise life cycle costs
3. Identifying and managing risks associated with providing services from infrastructure
4. Making a trade-off between service levels and costs to ensure that the community receives the best return from infrastructure
5. Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs
6. Consulting with the community to ensure that services and costs meet community needs and are affordable
7. Developing partnership with other bodies or contract out, where available to provide services
8. Seeking additional funding from governments and other bodies to better reflect a "whole of government' funding approach to infrastructure services

What happens if we don't manage the shortfall?

Council will keep and maintain the current level of service for assets, however it is likely council will defer asset upgrade projects unless new sources of revenue are found.

What can we do?

Council can develop options, costs and priorities for future services, consult with the community to plan future services to match the community service needs with ability to pay for services and maximise community benefits against costs.

What can you do?

Council will be pleased to consider your thoughts on the issues raised in the asset management plan and suggestions on how council may change or reduce its mix of services to ensure that the appropriate level of service can be provided to the community within available funding

2. Introduction

2.1 Background

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

The asset management plan follows the format for AM Plans as recommended in International Infrastructure Management Manual.

The asset management plan is to be read with Council's Asset Management Policy, Asset Management Strategy and the following associated planning documents:

2.2 Norfolk Island Community and Strategic Plan

This plan is initiated by, and is owned by the community. To ensure that aspirations are realised a concerted effort from all sectors of the community is required to ensure its effectiveness

The plan contains a vision for Norfolk Island and recommends strategic objective and future directions. Due to uncertainty of funding arrangement of this newly formed council significant challenges lay ahead in the next 10 year plan cycle. The community will need to raise revenue to meet the services and infrastructure requirements. The community plan identifies council's role in realisation of a sustainable future on this Island.

2.3 Plan framework

- Levels of service – specifies the services and levels of service to be provided by council
- Future demand – how this will impact on future service delivery and how this is to be met
- Life cycle management – how we will manage our existing and future assets to provide defined levels of service
- Financial summary – what funds are required to provide the defined services
- Asset Management practices
- Monitoring – how the plan will be monitored to ensure it is meeting the organisation's objectives
- Asset management improvement plan

2.4 Core and advanced Asset Management

This asset management plan is prepared as a "core" asset management plan over a 10 year planning period. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a "top down "approach where analysis is applies at the network level.

2.5 Community Consultation

This 'core' asset management plan is prepared to facilitate community consultation initially through feedback on public display of draft asset management plans prior to adoption by the council. Future revision of the asset management plan will incorporate community consultation on service levels and costs of providing the service. This will assist the council and the community in matching the level of service needed by the community, service risks and consequences with the community's ability and willingness to pay for the service

3. Levels of service

3.1 Customer Research and Expectations

The council has not carried out any detailed research on customer expectations with regards its infrastructure. This will be investigated for future updates of the asset management plan.

3.2 Community levels of service

Relate to the service outcomes that the community wants in terms of safety, quality, quantity, reliability, responsiveness, cost effectiveness and legislative compliance

Community levels of service ensures used in the asset management plan are

- Safety Is the service safe?

- Quality How good is the service?
- Function Does it meet user's needs?

Technical levels of service – Supporting the community service levels are operational or technical measure of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

- **Operations** – the regular activities to provide services such as opening hours, cleaning frequency, etc
- **Maintenance-** The activities necessary to retain an assets as near as practicable to an appropriate service condition (eg. structural repairs)
- **Renewal** – Renewal to maintain assets for maintaining the service levels
- **Upgrade** – the activities to provide an higher level of service

Asset management plan, implement and control technical service levels to influence the customer service levels our current service levels are detailed in the following table

Current and desired service levels

Key Performance Measure	Level of service	Performance measure process	Desired level of service	Current level of service
Quality	Provide quality Asset facilities	Customer requests and or complaints	Infrastructure to be maintained to Australian standards	
Function	Ensure facilities meet user expectations	Customer request and or complaints	Ensure that all infrastructure assets are fit for purpose	Planned and maintenance will come into existence after 1 July 2017
Operations	Ensure that all Assets are consistently presented in a tidy and well maintained condition suited to their intended purpose	Customer notification and complaints	Assets maintained to various Australian standards	Provision and operations of Assets currently meets user expectations
Maintenance	Compliance with legislation and standards to be phased in by July 2019 subject to funds for upgrade	Customer notification / complaints	Customer notifications and complaints	

3.4 Desired levels of service

Indications of desired levels of service are obtained from community consultations/ engagement. Further community consultation through the public exhibition period of this asset management plan to develop levels of service that are financially sustainable and meet community expectations

4 Future Demand

4.1 Demand drivers

Factors affecting demand include population change, changes in demographics, seasonal factors, rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, and divestment or outsourcing of services.

4.2 Demand forecast

There is expected to be little change in demand due to population growth. The Norfolk Island regional council's population has seen up's and down's and has averaged to a stable figure as indicated in the table from Australian Bureau of Statistics.

5. Lifecycle Management Plan

The lifecycle management plan details how council plans to manage and operate the assets at the agreed levels of service while optimising life cycle costs

5.1 Physical parameters

The assets covered by this asset management plan are shown below in table 5-1

Sewage treatment plant	sewers
Pump stations	vents
Sludge drying beds	Fuel tanks
Car parks, hardstands	Aviation fuel tanks
Fuel pump browsers	Weigh bridge
Power station engines and accessories	Substations transformers
Switchboards	Telecom hardware
All cables	Base stations
Cable trenches and pits	Airport fencing
Pavement surfaces	Airport beacon with timber structure
Car park airport	Runways and taxiway
Concrete skate park	netball courts
Kids playground	Dummy load equipment
Telecom dish antenna	UPS distribution board

With a Replacement Value of $ 345,265,944

5.2 Asset capacity and performance

The council's services are generally provided to meet the expectations of the community at par with the levels set up by the former entity 'Administration of Norfolk Island'

Assets	Service Deficiency
Infrastructure assets	Since the Administration operated under their own codes, most infrastructure assets do not conform to Australian standards / codes, some complied with Aviation authority. Since the takeover by the Australian government from the 1st of July 2016, a start-up capital is needed to bring all assets to levels at par with Australian codes. In the meantime NRIC will aim to maintain the assets to the old standards and keep them functional until such time that the funding is available

5.3 Asset condition rating

Condition is measured using a 1-5 grading system as detailed in Table 5-3

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

5.4 Asset condition profile

The condition profiles of our assets are shown below in table 5-4 and figure 5-2

Condition	Very good	Good	Fair	Poor	Very poor
Sewage treatment plant					☹
Pump stations				☹	
Sludge drying beds					☹
Airport Car parks,					☹
Fuel pump browsers			☺		
Airport hardstand					☹
Power station engines and accessories					☹
Switchboards				☹	
All cables				☹	
Cable trenches and pits			☺		
Concrete skate park	☺				
Telecom dish				☹	

antenna					
sewers				☹	
vents				☹	
Fuel tanks				☹	
Aviation fuel tanks			☺		
Weigh bridge			☺		
Substations transformers				☹	
Telecom hardware					
Base stations			☺		
Airport fencing			☺		
Airport beacon with timber structure			☺		
Runways and taxiway			☺		
netball courts bicentennial centre			☺		
Dummy load equipment			☺		
UPS distribution board			☺		

5.5 Asset valuations

The value of assets recorded in the asset register as of 30 of June 2016 as summarised below

Current replacement cost	$ 345,265,944
Annual Depreciation Expense per year (16)	Variable for this class

5.6 Infrastructure Risk Management Plan

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

Critical risks, being those assessed as “Extreme” requiring immediate corrective action. These risks are reported to management and council on a regular basis in a changing legislative frame work while going from an independent Administration to becoming a regional council of the NSW state

5.7 Routine operations and Maintenance plan

Operations include regular activities to provide services such as public health, safety and amenity, eg cleaning of premises and inspection of premises on a routine basis. Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of asset fail and need immediate repair to make the asset operational again.

5.8 Operations and Maintenance plan

Operations activities affect service levels including quality and function through street sweeping and grass mowing frequency, intensity and spacing of street lights and cleaning frequency and opening hours of facilities.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day to day work necessary to keep assets operating, example electrical repairs to power points, lighting, door and window furniture and servicing. Maintenance may be classified into reactive, planned and specific maintenance works activities

Reactive Maintenance is unplanned repair work carried out in response to service request and management/ supervisory directions

Planned maintenance is repair work that is identified and managed through a maintenance management system. We will continue to maintain the assets until a time when a start-up capital is made available

5.9 Critical Assets

Critical assets are those assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, organisations can target and refines investigative, activities, maintenance plans and capital expenditure plans at the appropriate time.

Operations and maintenance activities will be customised to mitigate critical assets failure and maintain service levels

5.10 Standards and specifications

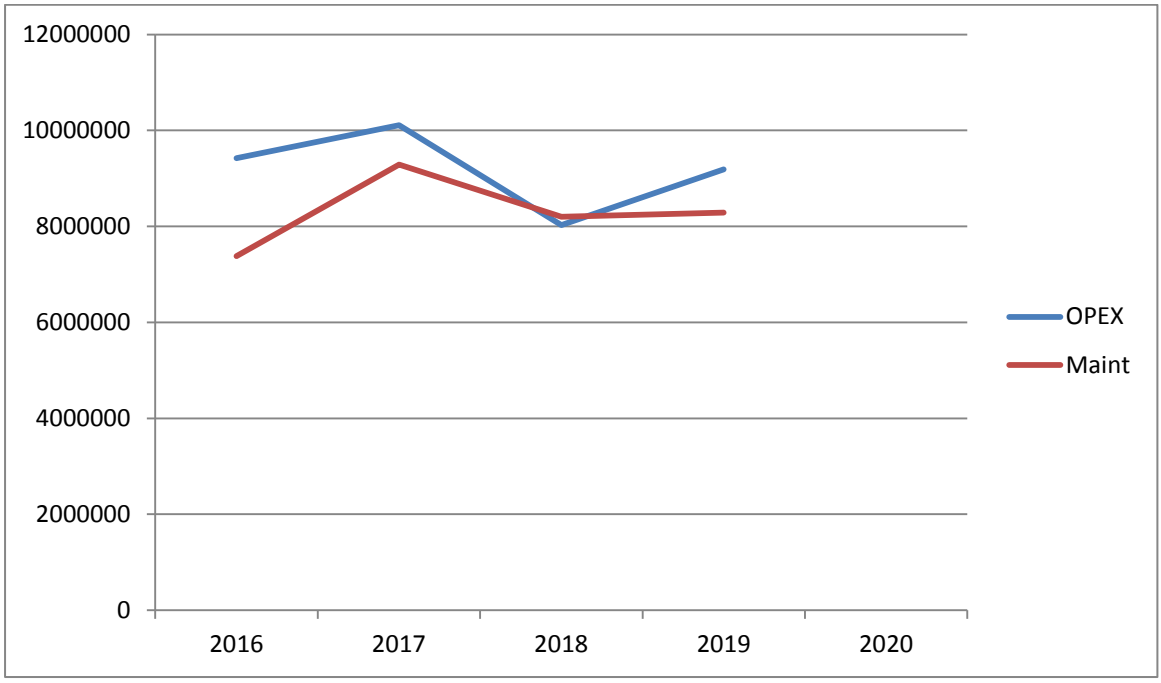
All work will be carried out in accordance with the Administration of Norfolk Island standards since the absence of a Start-up capital has made it impossible to bring all the assets up to the Australian Standards. This capital is estimated to be millions of dollars. The grants process is competitive and more often, requires a contribution from the council for every dollar received from the commonwealth in grants. NRIC does not have such funding to contribute a percentage in grants process. But strategically we will be aiming to meet the following regulation/standards in future subjected to the availability of funding from commonwealth

- Work Health and Safety Act & regulations
- Infrastructure codes of Australia as applicable
- All relevant council policies and
- Other regulatory requirements

5.11 Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown

Projected operations and maintenance expenditure



5.12 Capitalisation Threshold

Asset capitalisation threshold- Park Recreation and public facilities

Operations operational Budget

- Service delivery management including condition assessment, defect inspections and management systems
- Supervision
- Premises cleaning, etc
- Utility costs

Maintenance & Repair **Capitalise if value > $10,000**

- Reactive maintenance to assets(component replacement and repairs to facilities and structures)
- Programmed maintenance (tagging & testing of electrical equipment, servicing air conditioner units)
- Replacing facilities and structures
- Partial replacement of plant and equipment (water pumps, hot water systems)

Capital Renewal **Capitalise**

- New assets
- Upgrade assets

5.13 Renewal/ replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original or lesser required service potential. Work over and above restoring an asset to original service potential is upgrade/ expansion or new works expenditure

5.14 Renewal plan

Council's Asset Renewal Plan is the programmed renewal dates of assets which are used to predict expenditure requirement within the long term financial plan. The current residual life of the asset identifies the date of renewal

Early defect identification by condition assessment may enable major maintenance works to extend the asset life before renewal is required

Asset category	Useful life(years)	Asset category	Useful life(years)
Airport	2 years	Liquor bond	1
Museums	2	Waste Management	4
Library	1	Social services Tourism information centre	4
Fire services	2	Customs	2
Communications	2	Health and Quarantine	1
Public works	2	Emergency service	1
lighterage	2	Radio station	2
electricity	1	Fuel depot ball bay	1

5.15 Renewal and replacement strategies

The organisation will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risk by:

Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner,

Undertaking project scoping for all capital renewal and replacement projects to identify:

- The service delivery 'deficiency", present risk and optimum time for renewal/replacement
- The project objective to rectify the deficiency
- The range of options, estimated capital and life cycle costs for each options that could address the service deficiency
- And evaluate the options against evaluation criteria adopted by council, and
- Select the best option to be included in capital renewal programs

Using ‘low cost ‘ renewal methods (cost of renewal is less that replacement) wherever possible, Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting very high and high risks and residual risks after treatment to management and council

Review current and required skills base and implement workforce training and development to meet required construction and renewal needs,

Maintain a current hierarchy of critical assets and capital renewal treatments and timings required Review management of capital renewal and replacement activities to ensure council is obtaining best value for resources used.

Renewal ranking criteria

Asset renewal and replacement is typically undertaken to either

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate
- To ensure the infrastructure is of sufficient quality to meet the service requirement

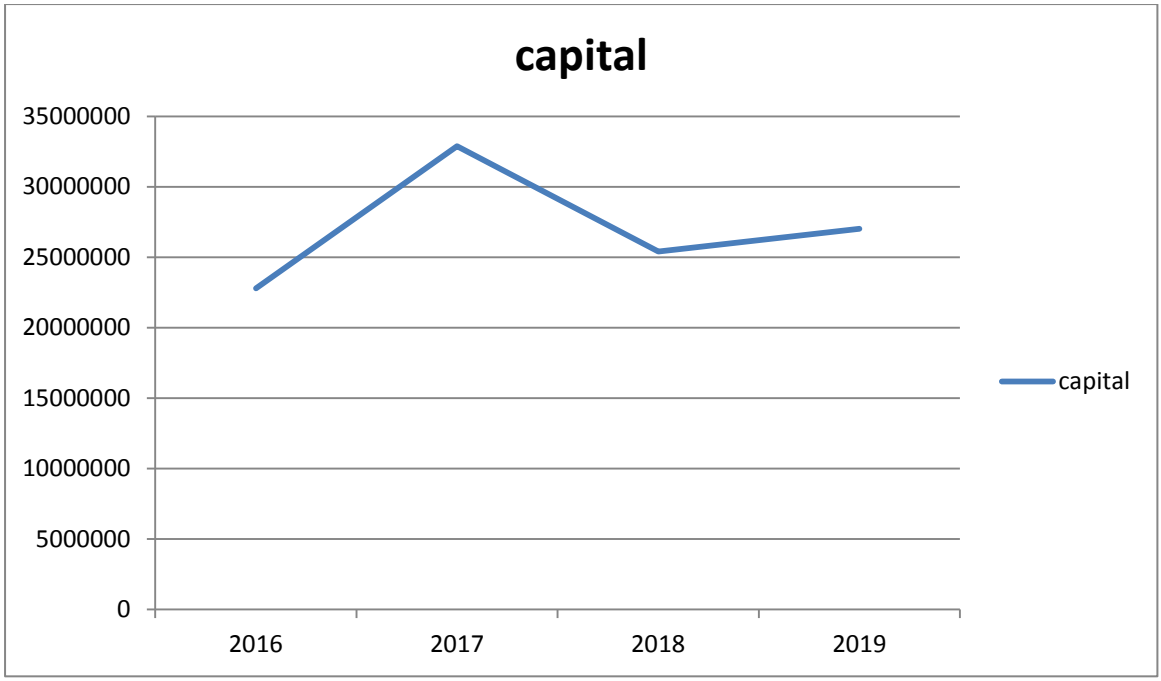
It is possible to get some indication of capital renewal and replacement priorities by identifying assets or assets groups that:

- Have a high consequence of failure
- Have a high utilisation and subsequent impact on users would be greatest
- The total value represents the greatest net value to the organisation
- Have the highest average age relative to their expected lives
- Are identified in the AM Plan as key cost factors
- Have high operational or maintenance costs, and
- Where replacement with modern equivalent assets would yield material savings

5.16 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures are forecast to increase over time as the asset stock increases from growth. The expenditure is summarised in figure

The projected capital program is shown in the table



5.17 Creation/ Acquisition / Upgrade plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the organisation from land development.

5.18 Selection criteria

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

Criteria	Weighting
Public Health & safety	50 %
Identified by Strategic Plans	40 %
Councillor/ Public Request	10 %

5.19 Summary of future upgrade/ new assets expenditure

Projected upgrade/ new asset expenditures are summarised below

5.20 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in table below together with estimated revenue. These assets will be further reinvestigated to

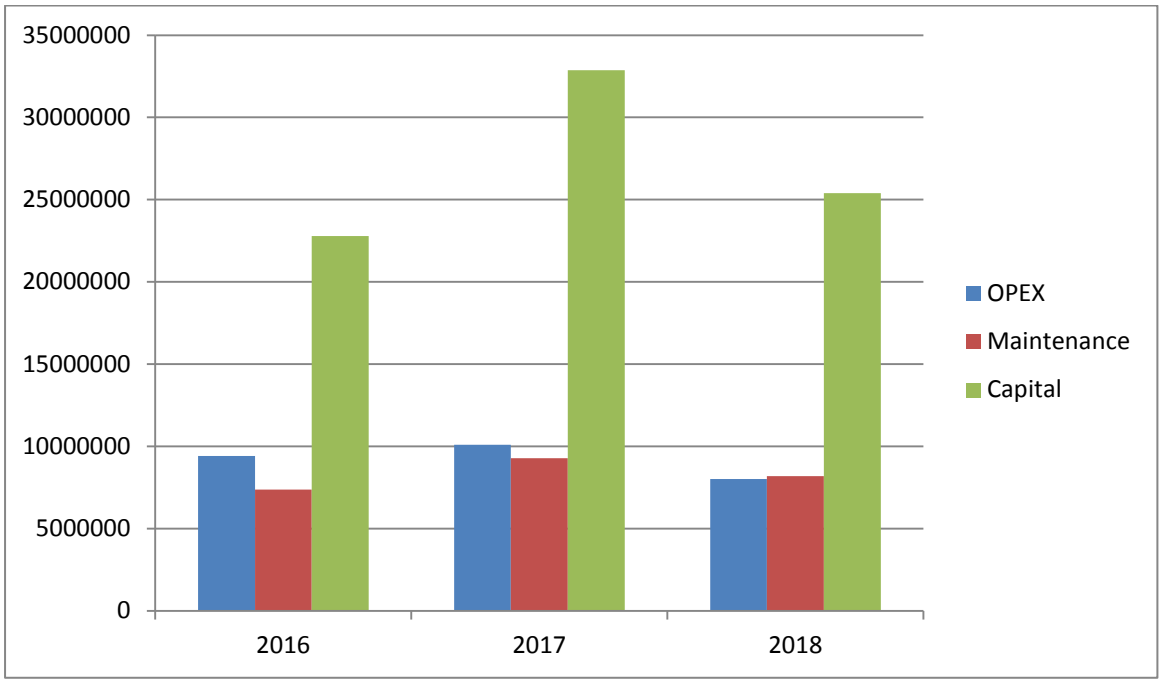
determine the required levels of service and see what options are available for alternate service delivery, if any. Any revenue gained form asset disposals is accommodated in the organisation's long term financial plan.

6. Financial Summary

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

6.1 Financial Statements and projections

The financial projections are shown in figure below for projected operating (operations and maintenance) and capital expenditure (renewal upgrade/ expansion/ new assets. Note that all costs are shown in real values



6.2 Sustainability of service delivery

There are two key indicators for service delivery sustainability that have been considered in the analysis of the service provided by this asset category, these being

- Long term life cycle costs/ expenditure
- Medium term projected / budged expenditure over 10 years of the planning period

Long term – life cycle cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense).

Medium term- 10 year financial planning period

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

These projected expenditures may be compared to budgeted expenditures in the 10 year period to identify any funding shortfall. In a core asset management plan, a gap is generally due to increasing asset renewals for ageing assets.

At this stage it will be unrealistic to estimate these expenditures

6.3 Funding Strategy

After the council accepts and agreement with the community on service levels, an appropriate to ensure ongoing financial sustainability projected expenditures are accommodated in the organisation's 10 year term financial plan

6.4 Valuation forecasts

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by the organisation and form assets constructed by land developers and others and donated to the organisation

The depreciated replacement cost will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets.

6.5 Key Assumptions made in Financial Forecasts

The key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts

Key assumptions made in this asset management plan are:

- The asset condition rating are a representation of the overall asset data base and based on a desktop analysis and experience by Council Staff involved with the assets through inspections, maintenance and capital improvements.
- The age of the assets recorded in Council's Asset Management database are a true representation of the actual construction date
- The National Standard useful life of assets predicts the true useful life

7. Plan Improvement and Monitoring

7.1 Accounting and financial systems

Council employs the Authority enterprise Business system provided by CIVICA. This is currently planned for replacement

7.2 Accountabilities for financial systems

The Chief Financial Officer is responsible for the control of council's accounting systems

7.3 Accounting standards and regulations

Australia accounting standards (AASB) Local Government, code of accounting practice and financial reporting, Council's accounting policy, the local government Act (LGA) and regulations

7.4 Capital/ maintenance threshold

The aim of the capitalisation policy is to set a capitalisation threshold above which assets are required to be recorded by council in its financial statements. The process for this is the capitalisation process and is achieved by the recording of the capital cost of the acquisition of assets into Council's financial system and then into the asset management system.

7.5 Asset Management system

Council employs the conquest asset management module of the Authority enterprise business system provided by CIVICA

7.6 Asset Registers

Asset registers linked to the council land register are to be reviewed and further developed as part of the improvement program for this Asset Management Plan

8.0 Maintenance response levels of service

Reactive maintenance is unplanned repair work carried out in response to service request and management/ supervisory directions

8.1 projected 10 years capital upgrade and new works program

NIRC is currently completing an audit of all assets. The resultant condition reports will be used to complete the 10 year capital upgrade and new works programme. This programme is scheduled for completion in February, 2017.