

PUBLIC CONSULTATION ASSET MANAGEMENT PLANS

Comments are invited on Council's Buildings Asset Management Plan and Aerodrome Asset Management Plan.

The fundamental purpose of the plans is to improve Council's long-term strategic management of its Buildings and Aerodromes and to ensure the long-term financial sustainability of the Council.

A copy of the draft plans are available from the Bordertown or Keith Council offices or the website.

You can make a submission until 5.00 pm on 3 February 2021 as follows:

- Comment online on our Facebook page; or
- Email us at office@tatiana.sa.gov.au or
- Write to us at: PO Box 346, Bordertown SA 5268

Draft Asset Management Plans can be found on the next page.



Tatiara
the good country

Tatiara District Council

Buildings

Asset Management Plan

Version 3c November 2020



Document Control					
Document ID:Building AMP2020v3.docx					
Rev No	Date	Revision Details	Author	Reviewer	Approver
1	18/09/2019	Initial Draft – For Council Consideration	Mike Coppins Asset Manager	Aaron Hillier Director Infrastructure & Operations	Council
2	16/09/2020	Review for Council Workshop	AM	DIO	
3	30/11/2020	Revised Maintenance & Renewal Program	AM	DIO	

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	iii
2. INTRODUCTION	1
2.1 Background	1
2.2 Goals and Objectives of Asset Management	2
2.3 Plan Framework	3
2.4 Core and Advanced Asset Management	3
2.5 Community Consultation	3
3. LEVELS OF SERVICE	4
3.1 Customer Research and Expectations	4
3.2 Legislative Requirements	4
3.3 Current Levels of Service	4
3.4 Desired Levels of Service	6
4. FUTURE DEMAND	6
4.1 Demand Forecast	6
4.2 Changes in Technology	6
4.4 New Assets for Growth	7
5. LIFECYCLE MANAGEMENT PLAN	7
5.1 Background Data	7
5.2 Risk Management Plan	9
5.3 Routine Maintenance Plan	9
5.4 Renewal/Replacement Plan	11
5.5 Creation/Acquisition/Upgrade Plan	13
5.6 Disposal Plan	14
6. FINANCIAL SUMMARY	14
6.1 Financial Statements and Projections	14
6.2 Funding Strategy	17
6.3 Valuation Forecasts	18
6.4 Key Assumptions made in Financial Forecasts	18
7. ASSET MANAGEMENT PRACTICES	18
7.1 Accounting/Financial Systems	18
7.2 Asset Management Systems	18
7.3 Information Flow Requirements and Processes	19
7.4 Standards and Guidelines	19
8. PLAN IMPROVEMENT AND MONITORING	19
8.1 Performance Measures	19
8.2 Improvement Plan	20
8.3 Monitoring and Review Procedures	21
REFERENCES	21
APPENDICES	22
Appendix A Projected 10-year Capital Renewal Works Program	23
Appendix B Budgeted Expenditure Accommodated in LTFP	25

This page is left intentionally blank.

1. EXECUTIVE SUMMARY

Context

The fundamental purpose of this Buildings Asset Management Plan is to improve Council’s long-term strategic management of its infrastructure assets on behalf of the community. This is the first comprehensive review of the Buildings Asset Management Plan.

Council’s goal in managing building assets is to meet the required level of service in the most cost effective manner, meet legislative requirements and maintain building infrastructure to support sustainable communities in the Tatiara.

Tatiara District Council has building assets located in the townships across the municipality. This Plan provides long-term strategies for the replacement, upgrading and management of the social, economic and environmental risks associated with the operation of these assets.

Building Assets

The building asset network comprises:

Buildings and Structures	
Asset Type	Quantities
Buildings	35
Sheds	17
Shelter	27
Fencing	15
Bridges	6
Other Structures	30
Heritage Buildings and Structures	
Asset Type	Quantities
Buildings	8
Shed	12
Shelter	8
Fencing	1
Other Structures	8

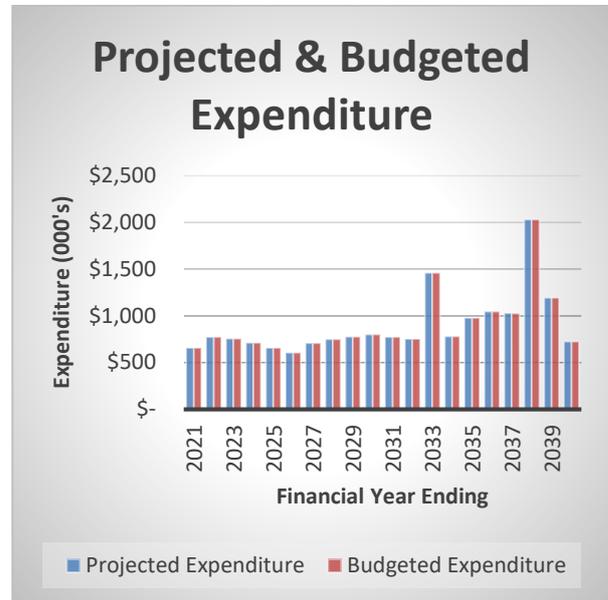
These infrastructure assets have a replacement value of \$38,832,000.

What does it Cost?

The projected cost to provide the services covered by this Asset Management Plan includes operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is \$7,196,000 or \$720,000 per year. For the period of this plan

expenditure for asset renewal is minimal with large spikes in future years.

Council is not able to provide the current level of service in the medium to long term without increasing spending on renewals. Projected and budgeted expenditure are shown in the graph below.



What we will do

Council plans to provide building infrastructure for the following:

- Operation, maintenance, renewal and upgrade of buildings and structures to meet service levels set by council in annual budgets.

Managing the Risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

- Aging building infrastructure
 - Public safety risks
 - Non-compliance with regulations and standards
- We will endeavour to manage these risks within available funding by:
- Identifying assets in poor condition
 - Reactive repairs
 - Regular inspection and testing of buildings and services

The Next Steps

The actions resulting from this asset management plan are:

- Continue to monitor the condition of building and structure assets
- Long term financial planning for asset renewals and upgrades
- Renewal/Replacement of assets

Questions you may have

What is this plan about?

This asset management plan covers the infrastructure assets that serve the Tatiara Community's building infrastructure needs. These assets include buildings in townships across the Council area.

What is an Asset Management Plan?

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

An asset management plan details information about infrastructure 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.

Is there a funding shortfall?

Current data and information indicates that the current funding of Council's Building assets is inadequate to ensure their long-term sustainability.

Aging building infrastructure is expected to cause spikes in capital expenditure when this infrastructure reaches the end of its useful life.

What options do we have?

Current data indicates that Council is not well positioned to fund the current service levels provided by building infrastructure, therefore it is imperative that future renewal, upgrade and maintenance regimes are optimised to ensure rate payers are receiving building infrastructure services at the lowest possible price. This can be done by ensuring the following:

1. Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels,
2. Improving our efficiency in operating, maintaining, replacing existing and constructing new assets to optimise life cycle costs,
3. Identifying and managing risks associated with providing services from infrastructure,
4. Making trade-offs 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 savings in future operations and maintenance costs
6. Consulting with the community to ensure that building infrastructure services meet community needs and are affordable.

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.

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

- Strategic Management Plan – The Strategic Management Plan provides a focus for Council's service delivery over a three-year period
- Planning and Design Code – The planning and design code has two purposes. Firstly, it sets our objectives to guide the type and location of future developments across the Council areas. Secondly, it provides the detail for the assessment of individual development proposals through the establishment of a network of zones together with detailed criteria against which development application are assessed.
- Long Term Financial Plan – This plan outlines all aspects of the key financial strategy objectives and commitments. Since financial resources are limited, the long term financial plan will both inform and interpret the Strategic Management Plan
- Annual Budget – The Budget details resources needed to deliver services on an annual basis. In addition, it outlines the service delivery programs and projects of the Council and details performance measures (both financial and non-financial) in which the efficiency and effectiveness of the service delivery can be gauged.

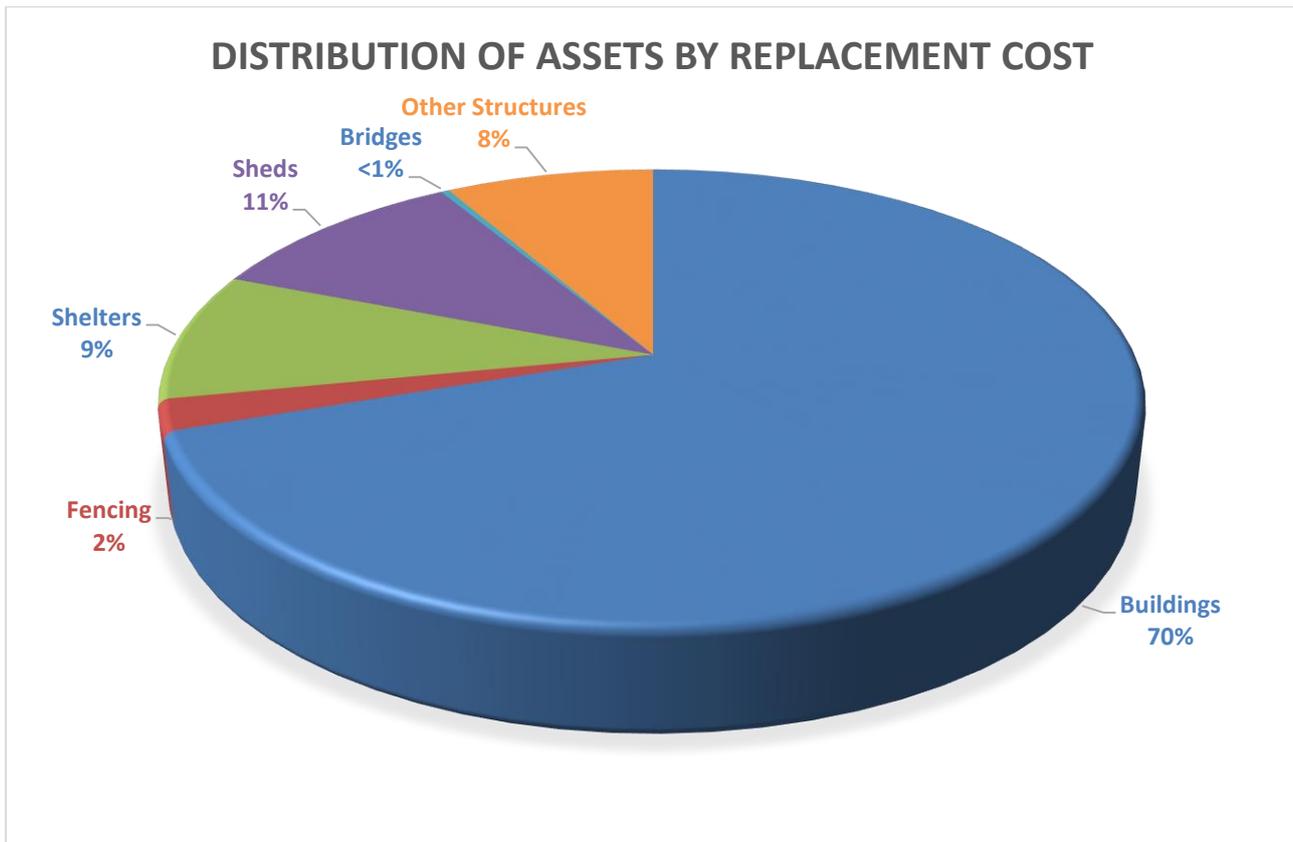
The infrastructure assets covered by this asset management plan are shown in Table 2.1.

Table 2.1: Assets covered by this Plan

Asset category	Count/Length	Replacement Value
Buildings	35	\$22,772,000
Sheds	17	\$749,000
Shelters	27	\$1,197,000
Fencing	15	\$1,699,000
Bridges	6	\$70,000
Other Structures	30	\$4,694,000
Heritage Buildings	8	\$4,412,000
Heritage Sheds	12	\$2,598,000
Heritage Shelters	8	\$292,000
Heritage Fencing	1	\$220,000
Other Heritage Structures	8	\$129,000
TOTAL		\$38,832,000

Valuation as at 30 June 2020

Figure 1: Distribution of Building Assets by Replacement Value



2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by 'purchase', by contract, construction by council staff and by donation of assets constructed by developers and others.

Council's goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Taking a life cycle approach,
- Developing cost-effective management strategies for the long term,
- Providing a defined level of service and monitoring performance,
- Understanding and meeting the demands of growth through demand management and infrastructure investment,
- Managing risks associated with asset failures,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.¹

The goal of this asset management plan is to:

- Document the services/service levels to be provided and the costs of providing the service,
- Communicate the consequences for service levels and risk, where desired funding is not available, and
- Provide information to assist decision makers in trading off service levels, costs and risks to provide services in a financially sustainable manner.

This asset management plan is prepared under the direction of Council's vision, mission, goals and objectives.

¹ IPWEA, 2006, *IIMM* Sec 1.1.3, p 1.3.

Council's vision is:

“Shaping a sustainable future by realising the potential of our people and region”

Relevant goals and objectives and how these are addressed in this asset management plan are shown in Table 2.2.

Table 2.2: Organisation Goals and how these are addressed in this Plan

Theme	Strategic Goal	Strategy	How Goal and Objectives are addressed in AMP
Theme 2 - Built and Natural Environment	Provide appropriate infrastructure that support our district's growth	<ul style="list-style-type: none">• Prepare and maintain infrastructure asset management plans	This AMP includes a 10-year priority based asset maintenance and replacement program for transport assets.

2.3 Plan Framework

Key elements of the plan are

- 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 the organisation will manage its existing and future assets to provide the required services
- Financial summary – what funds are required to provide the required 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 the first stormwater asset management plan. It is prepared as a 'core' asset management plan in accordance with the International Infrastructure Management Manual². 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 applied at the 'system' or '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 Council. Future revisions of the asset management plan will incorporate community consultation on service levels and costs of providing the service. This will assist Council and the community in matching the level of service needed by the community, service risks and consequences with the community's ability to pay for the service.

² IPWEA, 2006.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

Council has not carried out any research on customer expectations. This will be investigated for future updates of the asset management plan.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. Relevant legislation is shown in Table 3.2.

Table 3.2: Legislative Requirements

Legislation	Requirement
Local Government Act 1934 and 1999	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
Local Government (Financial Management and Rating) Amendment Act 2005	Impetus for the development of a Strategic Management Plan, comprising an (Infrastructure) Asset Management Plan and Long-term Financial Plan
Environmental Protection Act 1993	This Act places a 'duty of care' on people not to undertake activities that will cause environmental harm.
Work Health and Safety Act 2012 and regulations 2012	An Act to provide for the health, safety and welfare of persons at work.
Building Code of Australia	This Code provides the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings (and new building work in existing buildings) throughout Australia.
Planning, Development and Infrastructure Act 2016	An Act to provide for planning and regulate development in the State; to regulate the use and management of land and buildings; to make provision for the maintenance and conservation of land and buildings where appropriate; and for other purposes.

3.3 Current Levels of Service

Council has defined service levels in two terms.

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 measures used in the asset management plan are:

Quality	How good is the service?
Function	Does it meet users' needs?
Safety	Is the service safe?

Technical Levels of Service - Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the council undertakes to best achieve the desired community outcomes.

Technical service measures are linked to annual budgets covering:

- Operations – the regular activities to provide services such as electricity costs, etc.
- Maintenance – the activities necessary to retain an asset as near as practicable to its original condition (eg inspections, pressure cleaning, etc),

- Renewal – the activities that return the service capability of an asset up to that which it had originally (eg roof replacement),
- Upgrade – the activities to provide a higher level of service (eg replacing a component with a larger size) or a new service that did not exist previously.

Council’s current service levels are detailed in Table 3.3.

Table 3.3: Current Service Levels

Key Performance Measure	Level of Service Objective	Performance Measure Process	Desired Level of Service	Current Level of Service
COMMUNITY LEVELS OF SERVICE				
Quality	To provide safe, clean and accessible buildings	Customer service complaints relating to safety, accessibility and cleanliness.	To be determined	
Function	The ease of parking, directional signage, and experience at a facilities	Customer service complaints relating to parking, signage and experience at facility.	To be determined	
Capacity/ Utilization	Capacity is matched to user’s need	Customer service complaint relating to over or under capacity.	To be determined	
Environment/Safety	Compliance with OH&S legislation	Customer reported incidents	To be determined	
TECHNICAL LEVELS OF SERVICE				
Operations	Servicing and management	Constancy of cleaning and inspections	Annual	Compliant
Maintenance	Respond to service requests and provide scheduled maintenance Buildings meet legislative standards	Reactive service requests and scheduled maintenance is completed within reasonable time frames Budget	To be collated \$275,000	0 service requests \$275,000
Renewal	Buildings meets users needs Accessible to people with physical challenges	Renewals comply with standards Budget	System components are economically replaced within operating life cycles Critical buildings will provide wheelchair access As required	 As required

Upgrade/New	Construction of new buildings	Adequate building facilities for community needs		
		Budget	\$0	\$0

3.4 Desired Levels of Service

At present, indications of desired levels of service are obtained from various sources including residents' feedback to Councillors and staff, service requests and technical standards. Council has yet to quantify some desired levels of service. This will be done in future revisions of this asset management plan.

4. FUTURE DEMAND

4.1 Demand Forecast

Factors affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership, consumer preferences and expectations, economic factors, agricultural practices, environmental awareness, etc.

Demand factor trends and impacts on service delivery are summarised in Table 4.1.

Table 4.1: Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection	Impact on services
Population	Bordertown 2953 Keith 1355 Mundulla 436 Wolseley 180 District Total 6620 (2016 census)	Population estimates are projected to reduce slightly to 5995 within the district over the period 2016 – 2031 (SA Planning Panel)	Nil
Demographics		Aging population – over 70s will increase by >20% in the period 2016 - 2031 (SA Planning Panel)	Greater need for access for people with disabilities
Legislative Requirements/Design Standards	New facilities constructed and maintained according to current legislation	Increased design standards	Increased construction and maintenance cost
Heritage	A number of heritage buildings and structures are included in this asset management plan	More heritage buildings and structures may be gifted to Council	Higher operations and maintenance costs due to age

4.2 Changes in Technology

Technology changes are forecast to have little effect on the delivery of services covered by this plan in the short term, however the following table highlights areas that technology is likely to have an impact on service delivery in the medium to long term.

Technology changes forecast to affect the delivery of services covered by this plan are detailed in Table 4.2.

Table 4.2: Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
Developments in condition assessment technology	Improved condition assessment methodology at a lower cost
Improvements in service efficiency at reduced power consumption	Improved replacement techniques and lower replacement costs

4.4 New Assets for Growth

The new assets required to meet growth will be acquired free of cost from land developments and constructed/acquired by Council.

Future developments based on Council’s development plan and previous developments are estimated to be limited.

5. LIFECYCLE MANAGEMENT PLAN

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

5.1 Background Data

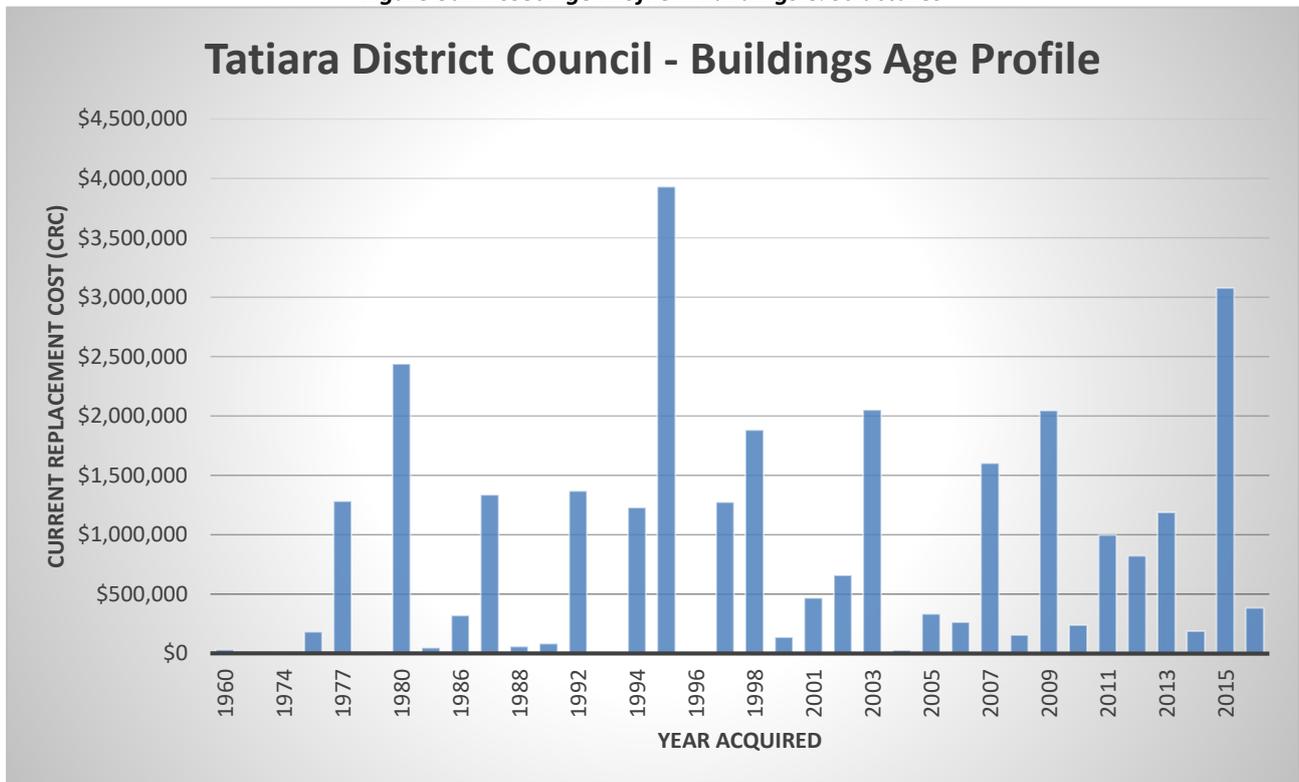
5.1.1 Physical parameters

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

Tatiara District Council’s building and structure assets are located across the district townships. The operating environment varies between sites with areas of different soil types impacting on asset useful lives, and predicted replacement costs.

The age profile of the assets included in this AM Plan is shown in Figure 3a & 3b.

Figure 3a: Asset Age Profile – Buildings & Structures



5.1.2 Asset capacity and performance

Council's services are generally provided to meet design standards where these are available.

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

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency	Treatment

The above service deficiencies were identified from field inspections, and maintenance and callout records.

5.1.3 Asset condition

Asset condition data has not been captured for the infrastructure covered by this plan, however, it is impossible both economically and practically to capture condition information for all underground pipe assets, therefore, a sample of these assets need to be assessed and their condition extrapolated across the network. As further information becomes available it will be included in this document.

Condition is measured using a 1 – 100 rating system as detailed in Table 5.1.3.

Table 5.1.3: IIMM Description of Condition

Condition Rating	Description
10	Very good condition: Only planned maintenance required.
30	Good: Minor maintenance required plus planned maintenance.
50	Fair: Significant maintenance required.
70	Poor: Significant renewal/upgrade required.
90	Very poor: Unserviceable.

Council has carried out condition assessments on both the pump stations and the pipe network.

5.1.3.1 Building & Structure Condition

Where possible, condition is monitored in accordance with recommended service and maintenance standards. Condition is also monitored during planned and unplanned reactive maintenance.

5.1.4 Asset valuations

The value of assets recorded in the asset register as at 30th June 2020 covered by this asset management plan is shown below. Assets were last comprehensively revalued at 30th June 2018.

Current Replacement Cost	\$31,180,804 (Not including heritage buildings and structures)
Depreciable Amount	\$31,180,804
Depreciated Replacement Cost	\$14,604,660
Annual Depreciation Expense	\$754,156 (Further componentisation results in a reduction to \$591,546 when the fit-out useful life (UL) of 15 years is replaced with Flooring UL of 20 years and Fittings UL of 40 years)

Council's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion.

Asset Consumption (Depreciation/Depreciable Amount)	2.42% (1.90% refined componentisation)
Asset renewal (Capital renewal exp/Depreciable amount)	1.50%
Annual Upgrade/New (Capital upgrade exp/Depreciable amount)	0.02%

Council is currently renewing assets at 1.50% of the rate they are being consumed and increasing its asset stock by approximately 0.02% each year over a 10 year period and 0% in the first year of this plan.

To provide services in a financially sustainable manner, Council will need to ensure that it is renewing assets at the rate they are being consumed over the medium-long term and funding the life cycle costs for all new assets and services in its long term financial plan.

5.2 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 or a ‘financial shock’ to the organisation. 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 ‘Very High’ - requiring immediate corrective action and ‘High’ – requiring prioritised corrective action identified in the Infrastructure Risk Management Plan are summarised in Table 5.2.

Table 5.2: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H, M, L)	Risk Treatment Plan	Associated Costs
Fire in a building or structure	Buildings and structures structurally damaged Loss of life or buildings	H	Maintenance program to exercise fire hydrants at buildings Annual fire drills to ensure staff are familiar with emergency evacuation procedures	M
Disability Access	Prevent access to public facilities	M	Regular inspection program to identify lack of access	M
Air Conditioning	Lack of regular maintenance can reduce air quality and failure can lead to health stress on vulnerable citizens	M	Regular maintenance program	L

5.3 Routine Maintenance Plan

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

5.3.1 Maintenance plan

Maintenance includes reactive, planned and specific maintenance work activities.

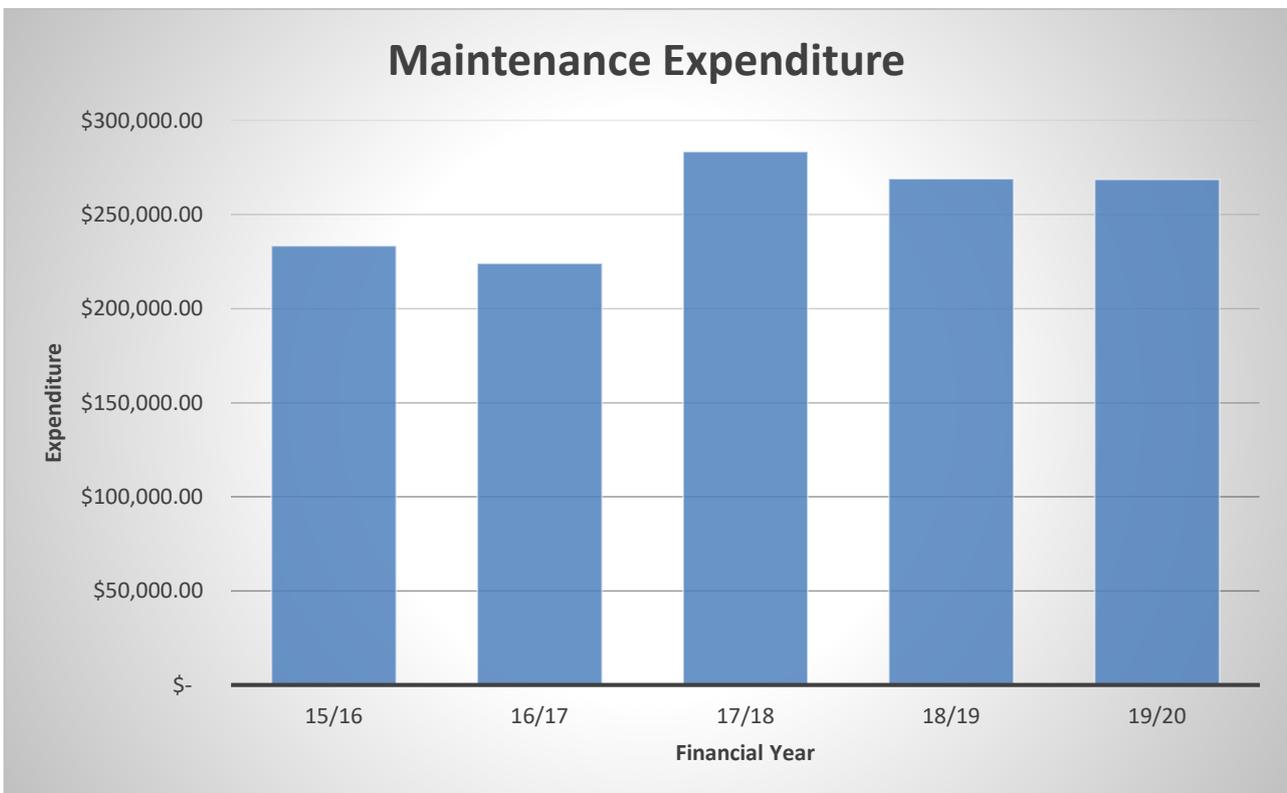
Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

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

Specific maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, etc. This work generally falls below the capital/maintenance threshold but may require a specific budget allocation.

Actual past maintenance expenditure is shown in Figure 9.

Figure 9: Maintenance Expenditure Trends



Assessment and prioritisation of reactive maintenance is undertaken by operational staff using experience and judgement. Due to the aging infrastructure, unplanned maintenance is expected to increase over time before building and structure assets are replaced.

5.3.2 Standards and specifications

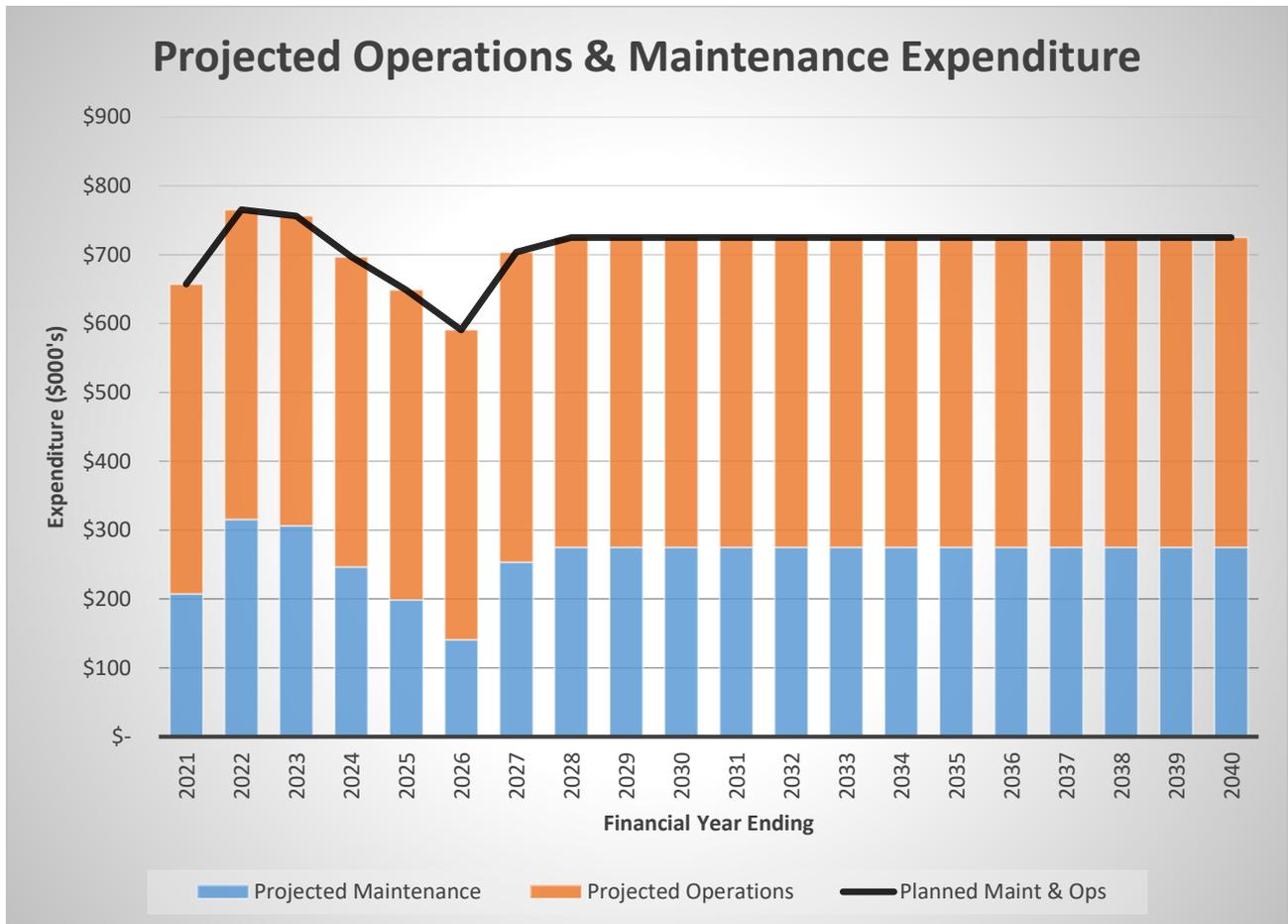
Maintenance work is carried out in accordance with the following Standards and Specifications.

- Building Code of Australia
- Operation and Maintenance Manuals

5.3.3 Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Figure 10. Note that all costs are shown in 2019/20 financial year dollar values.

Figure 10: Projected Operations and Maintenance Expenditure



Deferred maintenance, ie works that are identified for maintenance that are unable to be funded or resourced are included in the risk assessment process in the infrastructure risk management plan.

Maintenance is funded from the operating budget and grants where available. This is further discussed in Section 6.2.

5.4 Renewal/Replacement Plan

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

5.4.1 Renewal plan

Assets requiring renewal are identified from one of three methods provided in the ‘Expenditure Template’.

- Method 1 uses Asset Register data to project the renewal costs for renewal years using acquisition year and useful life, or

- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average *network renewals* plus *defect repairs* in the *Renewal Plan* and *Defect Repair Plan* worksheets on the '*Expenditure template*'.

Method 1 was used for this asset management plan.

The ranking criteria used to determine priority of identified renewal proposals is detailed in Table 5.4.1.

Table 5.4.1: Renewal Priority Ranking Criteria

Criteria	Weighting
Perceived Risk Factor	30
Condition	40
Design Capacity	30
Total	100%

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

Examples of low cost renewal include relining of pump sumps or stormwater pipes rather than replace.

5.4.2 Renewal standards

Renewal work is carried out in accordance with the following Standards and Specifications.

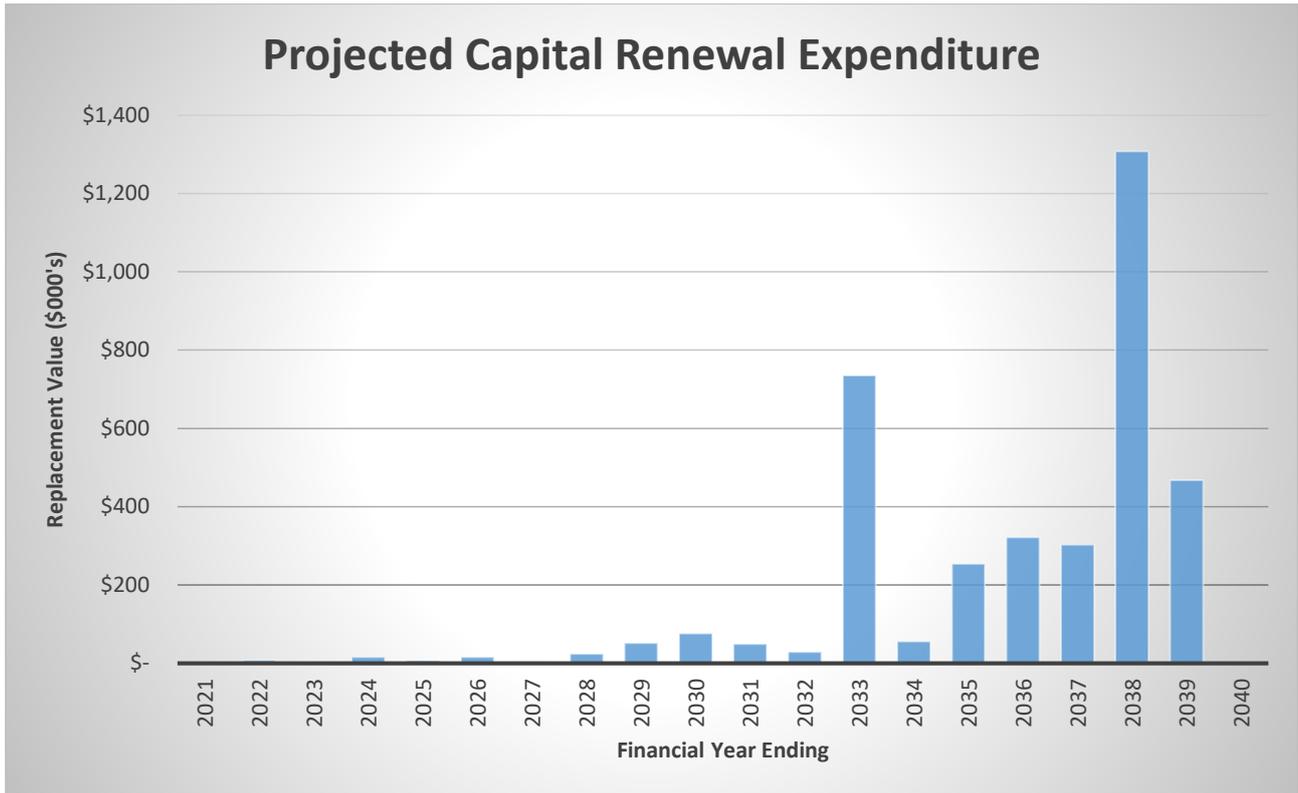
- Building Code of Australia
- Council's engineering design standards
- Local Government Association of South Australia Guidelines and Design Requirements

5.4.3 Summary of projected renewal expenditure

Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 11. Note that all costs are shown in 2020 financial year dollar values.

The projected capital renewal program is shown in Appendix B.

Figure 11: Projected Capital Renewal Expenditure



Renewals are to be funded from capital works programs and grants where available. This is further discussed in Section 6.2.

5.5 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 Council from land development. These assets from growth are considered in Section 4.4.

5.5.1 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 verify need and to develop a preliminary estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.5.1.

Table 5.5.1: Upgrade/New Assets Priority Ranking Criteria

Criteria	Weighting
Design Capacity	40%
Perceived Risk	40%
Condition	20%
Total	100%

5.5.2 Standards and specifications

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.

5.5.3 Summary of projected upgrade/new assets expenditure

There are no projected upgrade/new asset expenditures included in this Asset Management Plan. Moving forward these will be considered on a case-by-case basis and will largely be reliant on grant funding sources becoming available.

New assets and services are to be funded from capital works program and grants where available. This is further discussed in Section 6.2.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation

There are no assets identified for disposal.

6. FINANCIAL SUMMARY

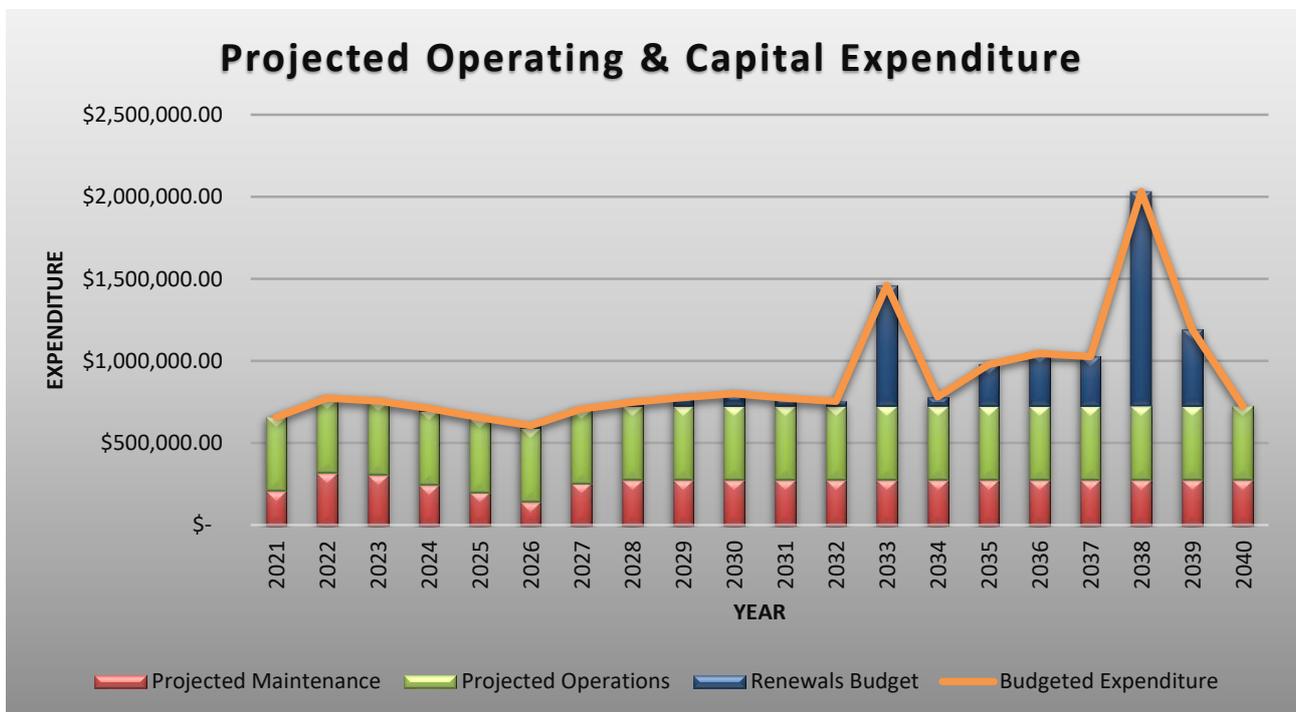
This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset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

6.1 Financial Statements and Projections

The financial projections are shown in Figure 13 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets), net disposal expenditure and estimated budget funding.

Note that all costs are shown in 2020 financial year dollar values.

Figure 13: Projected Operating and Capital Expenditure and Budget



6.1.1 Financial sustainability in service delivery

There are three key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 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 longest asset life. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this asset management plan is \$1,249,000 per year (operations and maintenance expenditure plus depreciation expense in year 1).

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes operations, maintenance and capital renewal expenditure in year 1. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan is \$657,000 (operations and maintenance expenditure plus budgeted capital renewal expenditure in year 1).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap.

The lifecycle gap covered by this asset management plan is -\$592,000 per year (-ve = gap, +ve = surplus).

Life cycle expenditure is 53% of life cycle costs giving a life cycle sustainability index of 0.53.

The life cycle costs and life cycle expenditure comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the asset management plans and long term financial plan.

Medium term – 10 year financial planning period

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

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.

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is \$720,000 per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$720,000 per year giving a 10 year sustainability indicator of 1.00. This indicates that Council has allocated 100% of the projected expenditures needed to provide the services documented in the asset management plan.

Medium Term – 5 year financial planning period

The projected operations, maintenance and capital renewal expenditure required over the first 5 years of the planning period is \$711,000 per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$711,000 per year. This is 100% of projected expenditures giving a 5 year sustainability indicator of 1.00.

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and funding to achieve a financial sustainability indicator of 1.0 for the first year of the asset management plan and ideally over the 4 year life of the AM Plan.

Figure 14 shows the projected asset renewals in the 20 year planning period. The projected asset renewals are compared to budgeted renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period in Figure 14.

Figure 14: Projected and Budgeted Renewal Expenditure

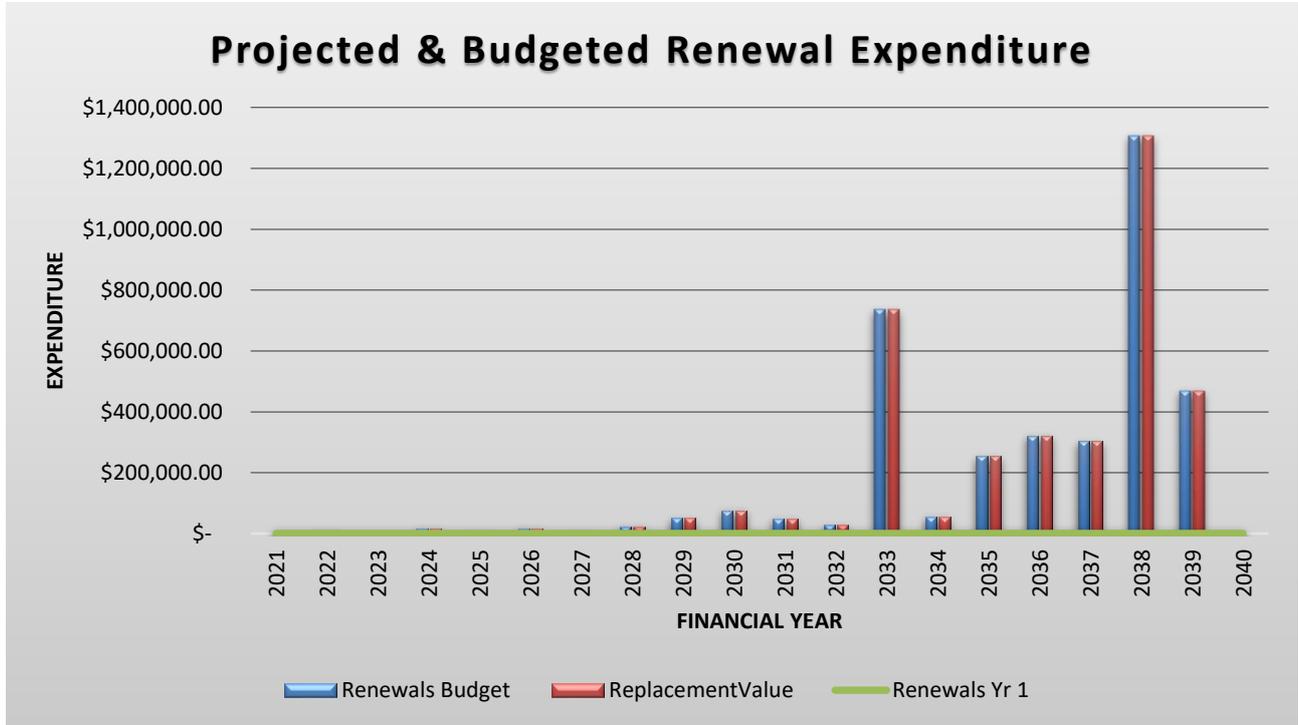


Table 6.1.1 shows the shortfall between projected and budgeted renewals

Table 6.1.1: Projected and Budgeted Renewals and Expenditure Shortfall

Year	Renewals Budget	Replacement Value	Renewal Financing Shortfall (-gap + surplus)	Cumulative Shortfall (-gap + surplus)
2021	\$0	\$0	\$0	\$0
2022	\$7,392	\$7,392	\$0	\$0
2023	\$0	\$0	\$0	\$0
2024	\$15,508	\$15,508	\$0	\$0
2025	\$6,572	\$6,572	\$0	\$0
2026	\$16,014	\$16,014	\$0	\$0
2027	\$4,500	\$4,500	\$0	\$0
2028	\$23,686	\$23,686	\$0	\$0
2029	\$51,844	\$51,844	\$0	\$0
2030	\$76,221	\$76,221	\$0	\$0
2031	\$48,856	\$48,856	\$0	\$0
2032	\$28,700	\$28,700	\$0	\$0
2033	\$735,511	\$735,511	\$0	\$0
2034	\$55,500	\$55,500	\$0	\$0
2035	\$253,785	\$253,785	\$0	\$0

2036	\$321,771	\$321,771	\$0	\$0
2037	\$302,534	\$302,534	\$0	\$0
2038	\$1,307,361	\$1,307,361	\$0	\$0
2039	\$467,356	\$467,356	\$0	\$0
2040	\$0	\$0	\$0	\$0

Note: A negative shortfall indicates a funding gap, a positive shortfall indicates a surplus for that year.

Providing services in a sustainable manner will require matching of projected asset renewals to meet agreed service levels with planned capital works programs and available revenue.

A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate any funding gap. Currently Tatiara District Council does not have a funding gap in the next 12 years but this becomes a significant amount over the following 10 year period.

The table above indicates that Council has not allocated sufficient funds in its long term budget to renew assets as required.

6.1.2 Expenditure projections for long term financial plan

Table 6.1.2 shows the projected expenditures for the 10-year long term financial plan.

Expenditure projections are in current (non-inflated) values. Disposals are shown as net expenditures (revenues are negative).

Table 6.1.2: Expenditure Projections for Long Term Financial Plan (\$000)

Year	Operations	Maintenance	Projected	Projected	Disposals
			Capital Renewal	Capital Upgrade/New	
2021	\$450,000	\$207,280	\$0	\$0	\$0
2022	\$450,000	\$315,350	\$7,392	\$0	\$0
2023	\$450,000	\$306,270	\$0	\$0	\$0
2024	\$450,000	\$246,740	\$15,508	\$0	\$0
2025	\$450,000	\$198,710	\$6,572	\$0	\$0
2026	\$450,000	\$140,730	\$16,014	\$0	\$0
2027	\$450,000	\$253,650	\$4,500	\$0	\$0
2028	\$450,000	\$275,000	\$23,686	\$0	\$0
2029	\$450,000	\$275,000	\$51,844	\$0	\$0
2030	\$450,000	\$275,000	\$76,221	\$0	\$0

Note: All projected expenditures are in 2020 dollar values

6.2 Funding Strategy

Projected expenditure identified in Section 6.1 is to be funded from general revenue.

6.3 Valuation Forecasts

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

6.4 Key Assumptions made in Financial Forecasts

This section details 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:

- It is assumed that the remaining useful life of buildings and structures are as recorded in the asset register and the condition is commensurate with their age profile
- All predicted financial figures are based on 2020/21 rates are not adjusted by inflation for the particular year of work

Accuracy of future financial forecasts may be improved in future revisions of this infrastructure and asset management plan with improved data.

7. ASSET MANAGEMENT PRACTICES

7.1 Accounting/Financial Systems

7.1.1 Accounting and financial systems

Council's financial accounting system is IT Vision's SynergySoft System

7.1.2 Accountabilities for financial systems

Director Corporate & Community Services is responsible for the accounting and financial system

7.1.3 Accounting standards and regulations

Council's accounting practices comply with the Local Government Act 1999 and the Local Government (Financial Management) Regulations and applicable accounting standards. Council is also subject to regular independent audits of its accounting systems and practices

7.1.4 Capital/maintenance threshold

Council has an Asset Capitalisation and Materiality Policy that states the capitalisation threshold for building infrastructure is \$10,000.

7.1.5 Required changes to accounting financial systems arising from this AM Plan

Investigate options to link or more easily transfer data from the financial system to the asset management system.

7.2 Asset Management Systems

7.2.1 Asset management system

Councils uses Assetfinda to manage building and structures asset information

7.2.2 Asset registers

Asset registers are maintained in the asset management system Assetfinda and the spatial data is maintained in ESRI ArcMap. These two systems are directly integrated.

7.2.3 Linkage from asset management to financial system

Currently there is no link from the asset management systems to the financial system.

7.2.4 Accountabilities for asset management system and data

Asset Manager is responsible for the asset management systems and its associated data.

7.2.5 Required changes to asset management system arising from this AM Plan

- Continuously review the accuracy and currency of asset information

7.3 Information Flow Requirements and Processes

The key information flows *into* this asset management plan are:

- Council strategic and operational plans,
- Service requests from the community,
- Network assets information,
- The unit rates for categories of work/materials,
- Current levels of service, expenditures, service deficiencies and service risks,
- Projections of various factors affecting future demand for services and new assets acquired by Council,
- Future capital works programs,
- Financial asset values.

The key information flows *from* this asset management plan are:

- The projected Works Program and trends,
- The resulting budget and long term financial plan expenditure projections,
- Financial sustainability indicators.

These will impact the Long Term Financial Plan, Strategic Longer-Term Plan, annual budget and departmental business plans and budgets.

7.4 Standards and Guidelines

Standards, guidelines and policy documents referenced in this asset management plan are:

- Tatiara District Council Asset Management Policy
- Tatiara District Council Asset Management Strategy

8. PLAN IMPROVEMENT AND MONITORING

8.1 Performance Measures

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

- The degree to which the required cash flows identified in this asset management plan are incorporated into the organisation's long term financial plan and Community/Strategic Planning processes and documents,
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan;

8.2 Improvement Plan

The improvement plan generated from the previous version of this plan and the status is shown in table 8.2.

Table 8.2: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline	Status	Comments
1	Record Capital expenditure as capital renewal and capital upgrade/new expenditure	DCCS	Staff time		Complete	
2	Review accuracy and currency of technical asset register	AM	Staff time	Ongoing	Largely complete	
3	Develop link from the technical asset register to the financial asset register or develop a single corporate asset register	AM, DCCS, FM	Staff time		Complete	A single database within Assetfinda is used for the technical and financial register
4	Development of complaints register for monitoring service levels and customer satisfaction	DDES	Staff time		Complete – further refinement needed	
5	Review chart of accounts to improve records of operation and maintenance (reactive & planned) cost and reporting	AM	Staff time	30/06/2021	No started	
6	Improve asset valuations and renewal costs	AM	Staff time	Ongoing	Complete - ongoing	Engage external engineering firm to develop unit rates

The asset management improvement plan generated from this asset management plan is shown in Table 8.3.

Table 8.3: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Carry out condition assessment of buildings to improve the estimated useful lives and maintenance requirements	DDES	Staff time	
2	Improve asset valuations and renewal costs	AM	Staff time	Ongoing

3	Develop a separate Bordertown Caravan Park asset management plan to cover this significant asset	AM, DDES, FM	Staff time	
4	Improve capture of maintenance activities	AM, DIO	Staff time	ongoing
5	Improve capture of customer complaints	AM, Records Officer	Staff time	

8.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of the budget decision process.

The Plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

REFERENCES

Tatiara District Council Strategic Plan 2016-2020

Tatiara District Council Annual Business Plan and Budget 2019/20

IPWEA, 2015, *International Infrastructure Management Manual*, Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au.

IPWEA, 2008, *NAMS.PLUS Asset Management* Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/namsplus.

IPWEA, 2015, *Australian Infrastructure Financial Management Guidelines*, Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/AIFMG.

IPWEA, 2011, *Asset Management for Small, Rural or Remote Communities* Practice Note, Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au/AM4SRRC.

APPENDICES

Appendix A Projected 10-year Capital Renewal Works Program

Appendix B Budgeted Expenditure Accommodated in LTFP

Appendix A Projected 10-year Capital Renewal Works Program

AssetId	Location	Description	Asset Sub Type	Replacement Year	Renewal Cost (\$)	Useful Life (Years)
2022						
154	Bordertown Wetlands	Footbridge	Bridge	2022	\$7,392.33	30
2024						
131	Bordertown Transfer Station	Chemical Tin Enclosure	Fencing	2024	\$12,707.83	25
14.4B	Tatiara District Memorial Pool Complex	Storeroom/ First Aid	Flooring	2024	\$2,800.00	15
2025						
19	Tatiara District Memorial Pool Complex	Mini Basketball Ring	None	2025	\$6,571.53	20
2026						
141	Keith Transfer Station	Shed	Shed	2026	\$12,484.50	30
108	Padthaway Cemetery	Pump Shed	Shed	2026	\$3,123.75	30
2027						
13.4B	Tatiara District Memorial Pool Complex	Bordertown Amateur Swimming Clubrooms	Flooring	2027	\$4,500.00	15
2028						
20	Tatiara District Memorial Pool Complex	Playground	None	2028	\$15,236.10	20
89.4B	Keith Lions Club Park	Toilet Block Kth Lions Pk	Flooring	2028	\$750.00	20
118.4B	Keith Swimming Centre	Change Rooms/ Canteen Keith	Flooring	2028	\$7,700.00	20
2029						
6.3	Bordertown Senior Citizens Centre	Senior Citizens Centre	Roof Cladding	2029	\$29,464.12	40
107	Moot-Yang-Gunya Swamp	Footbridge	Bridge	2029	\$10,874.06	30
8	Bordertown Road Safety School	Shed	Shed	2029	\$11,505.56	30
2030						
46	TDC Bordertown Works Depot	Shade House	Shelter	2030	\$10,428.26	20
105	Mundulla Cemetery	Mobile Canopy	Shelter	2030	\$14,812.87	20
97	Keith Cemetery	Mobile Canopy	Shelter	2030	\$14,812.37	20
136.4	Western Flat Hall	Hall	Flooring	2030	\$5,450.00	20
138.4	Bangham Recreation Ground	Toilet Block	Flooring	2030	\$750.00	20

AssetId	Location	Description	Asset Sub Type	Replacement Year	Renewal Cost (\$)	Useful Life (Years)
15.4	Tatiara District Memorial Pool Complex	Plant Room	Flooring	2030	\$4,900.00	20
140	Keith Transfer Station	Chemical Tin Enclosure	Fencing	2030	\$13,817.01	25
29.4	Apex Park	Toilet Block	Flooring	2030	\$6,100.00	20
54.4	Bordertown Caravan Park	Shower Room/ Toilets	Flooring	2030	\$500.00	20
62.4	Bordertown Recreation Lake	Toilet Block	Flooring	2030	\$400.00	20
81.4	Keith Heritage Park	Toilet Block	Flooring	2030	\$2,800.00	20
98.4	Wolseley Toilet Block	Toilet Block	Flooring	2030	\$1,450.00	20

Appendix B Budgeted Expenditure Accommodated in LTFP

Tatiara DC - Report 7 - LTFP Expenditure Projections (Buildings 2020)										
Projected Expenditure	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Capital Expenditure on Renewal/Replacement of existing assets	\$0	\$7,392	\$0	\$15,508	\$6,572	\$16,014	\$4,500	\$23,686	\$51,844	\$76,221
Capital Expenditure on Upgrade/New assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Operational cost of existing assets	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000	\$450,000
Maintenance cost of existing assets	\$207,280	\$315,350	\$306,270	\$246,740	\$198,710	\$140,730	\$253,650	\$275,000	\$275,000	\$275,000
Operational cost of New assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance cost of New assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Disposal of Surplus Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
All dollar values in (\$'000)'s										



AERODROME ASSET MANAGEMENT PLAN

Tatiara District Council

Document Control	Aerodrome Asset Management Plan
------------------	---------------------------------

Document ID :

Rev No	Date	Revision Details	Author	Reviewer	Approver
V1	November 2020	First Draft for public consultation	Chris Fryar	Aaron Hillier	

© Copyright 2020 – All rights reserved
The Institute of Public Works Engineering Australasia

DRAFT

Contents

- 1.0 EXECUTIVE SUMMARY 5**
- 1.1 The Purpose of the Plan.....5
- 1.2 Asset Description5
- 1.3 Levels of Service.....5
- 1.4 Future Demand5
- 1.5 Lifecycle Management Plan5
- 1.6 Financial Summary.....5
- 1.7 Asset Management Planning Practices.....6
- 1.8 Monitoring and Improvement Program7
- 2.0 Introduction 7**
- 2.1 Background8
- 2.2 Goals and Objectives of Asset Ownership9
- 3.0 LEVELS OF SERVICE 11**
- 3.1 Customer Research and Expectations11
- 3.2 Strategic and Corporate Goals11
- 3.3 Legislative Requirements.....11
- 3.4 Customer Values12
- 3.5 Customer Levels of Service12
- 3.6 Technical Levels of Service.....13
- 4.0 FUTURE DEMAND 15**
- 4.1 Demand Drivers15
- 4.2 Demand Forecasts15
- 4.3 Demand Impact and Demand Management Plan15
- 4.4 Asset Programs to meet Demand.....15
- 4.5 Climate Change Adaptation16
- 5.0 LIFECYCLE MANAGEMENT PLAN 17**
- 5.1 Background Data17
- 5.2 Operations and Maintenance Plan18
- 5.3 Renewal Plan20
- 5.4 Summary of future renewal costs.....21
- 5.5 Acquisition Plan22
- 5.6 Disposal Plan..... **Error! Bookmark not defined.**
- 6.0 RISK MANAGEMENT PLANNING 23**

6.1	Critical Assets.....	23
6.2	Risk Assessment.....	23
6.3	Infrastructure Resilience Approach	26
6.4	Service and Risk Trade-Offs	Error! Bookmark not defined.
7.0	FINANCIAL SUMMARY	27
7.1	Financial Sustainability and Projections	27
7.2	Funding Strategy.....	28
7.3	Valuation Forecasts	28
7.4	Key Assumptions Made in Financial Forecasts	29
7.5	Forecast Reliability and Confidence.....	29
8.0	PLAN IMPROVEMENT AND MONITORING	31
8.1	Status of Asset Management Practices	31
8.2	Improvement Plan	31
8.3	Monitoring and Review Procedures	31
8.4	Performance Measures	31
9.0	REFERENCES	33
10.0	APPENDICES	33
Appendix A	Acquisition Forecast.....	34
Appendix B	Operation Forecast	35
Appendix C	Maintenance Forecast	36
Appendix D	Renewal Forecast Summary	37
Appendix E	Disposal Summary.....	Error! Bookmark not defined.
Appendix F	Budget Summary by Lifecycle Activity	39

1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 2020-2039 year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10 year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that provide aerodrome services.

The aerodrome network comprises:

- 4 x Runways (1 x Sealed and 3 x Unsealed)
- Aprons, Taxiways and Access Roads
- Pilot-activated lighting in Bordertown and Keith
- Other (wind indicators, gable markers, cones etc.)

The above infrastructure assets have replacement value estimated at \$1,562,738.

1.3 Levels of Service

The allocation in the planned budget is sufficient to continue providing existing services at current levels for the planning period.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population
- Demographics (aging population)
- Legislative Requirements

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

- Monitor future population data
- Monitor changes in legislation

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10 year total outlays, which for the aerodrome network is estimated as \$892,168 or \$89,217 on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is \$895,081 or \$89,508 on average per year. This is 100% of the cost to sustain the current level of service at the lowest lifecycle cost.

Forecast Lifecycle Costs and Planned Budgets

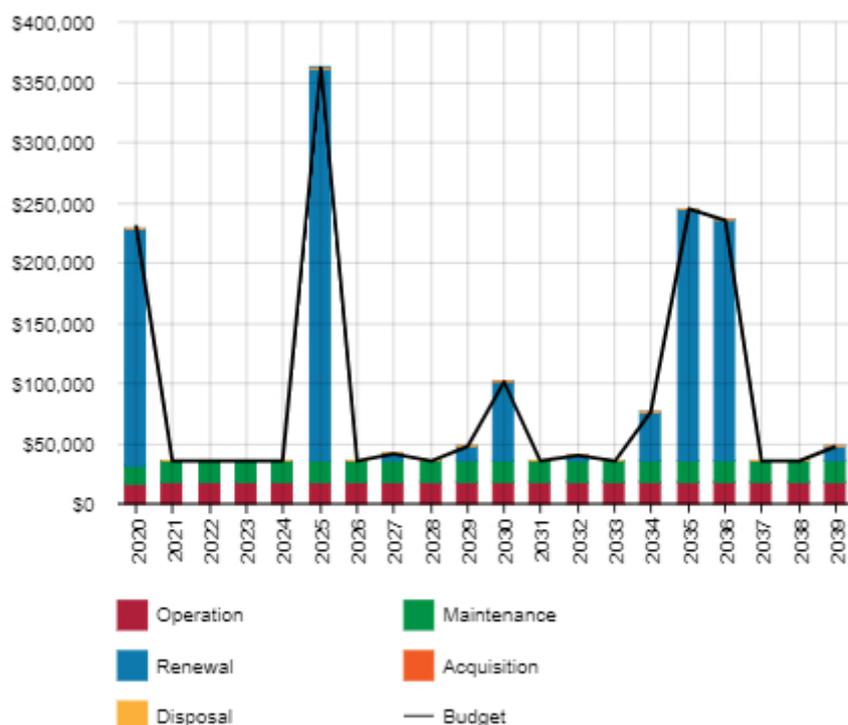


Figure Values are in current dollars.

We plan to provide aerodrome services for the following:

- Operation, maintenance, renewal and acquisition of runways, lighting and other aerodrome assets to meet service levels set by Tatiara District Council's annual budgets.

1.6.2 Managing the Risks

Our present budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Lack of parking space. Aircraft may park on Runway which can create risk for landing/taking off
- Emergency services may lose accessibility to the airfield. (e.g. Ambulance being block from driving to RAF aircraft)
- Unauthorised access to aerodromes. Risk of physical injury and damage to assets.

We can mitigate these risks by;

- Constructing a new parking area for aircraft.
- Locking entry points with a number pad system.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Maintenance and Operations expenditure is based on no acquisition/significant upgrades taking place during the planning period. Upgrading existing assets or acquiring new ones will increase both the Maintenance and Operations expenditure.
- No acquisition or disposal projects for the planning period.

- Where historical construction information was missing assumptions have been made on construction standards of some aerodrome infrastructure such as runway pavement depths.
- Where historical acquisition dates are missing, assumed acquisition dates based on condition have been utilised.

Assets requiring renewal are identified from either the asset register or an alternative method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal,
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge.

The Asset Register was used to forecast the renewal lifecycle costs for this AM Plan.

This AM Plan is based on a reliable level of confidence information.

1.8 Monitoring and Improvement Program

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

- Establish a measure for resilience in service responsibility
- Add aerodrome asset data to AssetFinda database
- Consultation with stakeholders to gather feedback and suggestion
- Review Chart of Account records and maintenance records system to improve data confidence

DRAFT

2.0 Introduction

2.1 Background

This AM Plan communicates the requirements for the sustainable delivery of services through management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period.

The AM Plan is to be read with the Tatiara District Council planning documents. This should include the Asset Management Policy and Asset Management Strategy, along with other key planning documents:

- Strategic Management Plan – The Strategic Management Plan provides a focus for Council’s service delivery over a three-year period.
- Development Plan – The Development Plan has two purposes. Firstly, it sets our objectives to guide the type and location of future development proposals through the establishment of a network of zones together with detailed criteria against which development application are assessed.
- Long Term Financial Plan – This plan outlines all aspects of the key financial strategy objectives and commitments. Since financial resources are limited, the long term financial plan will both inform and interpret the Strategic Management Plan.
- Annual Budget – The Annual Budget details resources needed to deliver services on an annual basis. In addition, it outlines the service delivery programs and projects of the Council and details performance measures (both financial and non-financial) in which the efficiency and effectiveness of the service delivery can be gauged.

The infrastructure assets covered by this AM Plan include runways, airfield lighting and many other assets. For a detailed summary of the assets covered in this AM Plan refer to Table in Section 5.

These assets are used to provide locations from which aircraft flight operations can take place.

The infrastructure assets included in this plan have a total replacement value of \$1,562,738.

Key stakeholders in the preparation and implementation of this AM Plan are shown in Table 2.1.

Table 2.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Tatiara District Council	<ul style="list-style-type: none"> ■ Represent needs of community/shareholders, ■ Allocate resources to meet planning objectives in providing services while managing risks, ■ Ensure service sustainable.
Elected Members (Council)	Responsible for delivering Council operations.
Rate Payers	Will fund (partially) works undertaken and cost of operation.
Community Organisations (Gliding Club etc.)	Beneficiaries of services provided by aerodromes.
Royal Flying Doctor Service	Regular use of aerodromes and key emergency health service.

2.2 Goals and Objectives of Asset Ownership

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

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a Long-Term Financial Plan which identifies required, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are

- Levels of service – specifies the services and levels of service to be provided,
- Risk Management,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Lifecycle management – how to manage its existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices – how we manage provision of the services,
- Monitoring – how the plan will be monitored to ensure objectives are met,
- Asset management improvement plan – how we increase asset management maturity.

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

- International Infrastructure Management Manual 2015 ¹

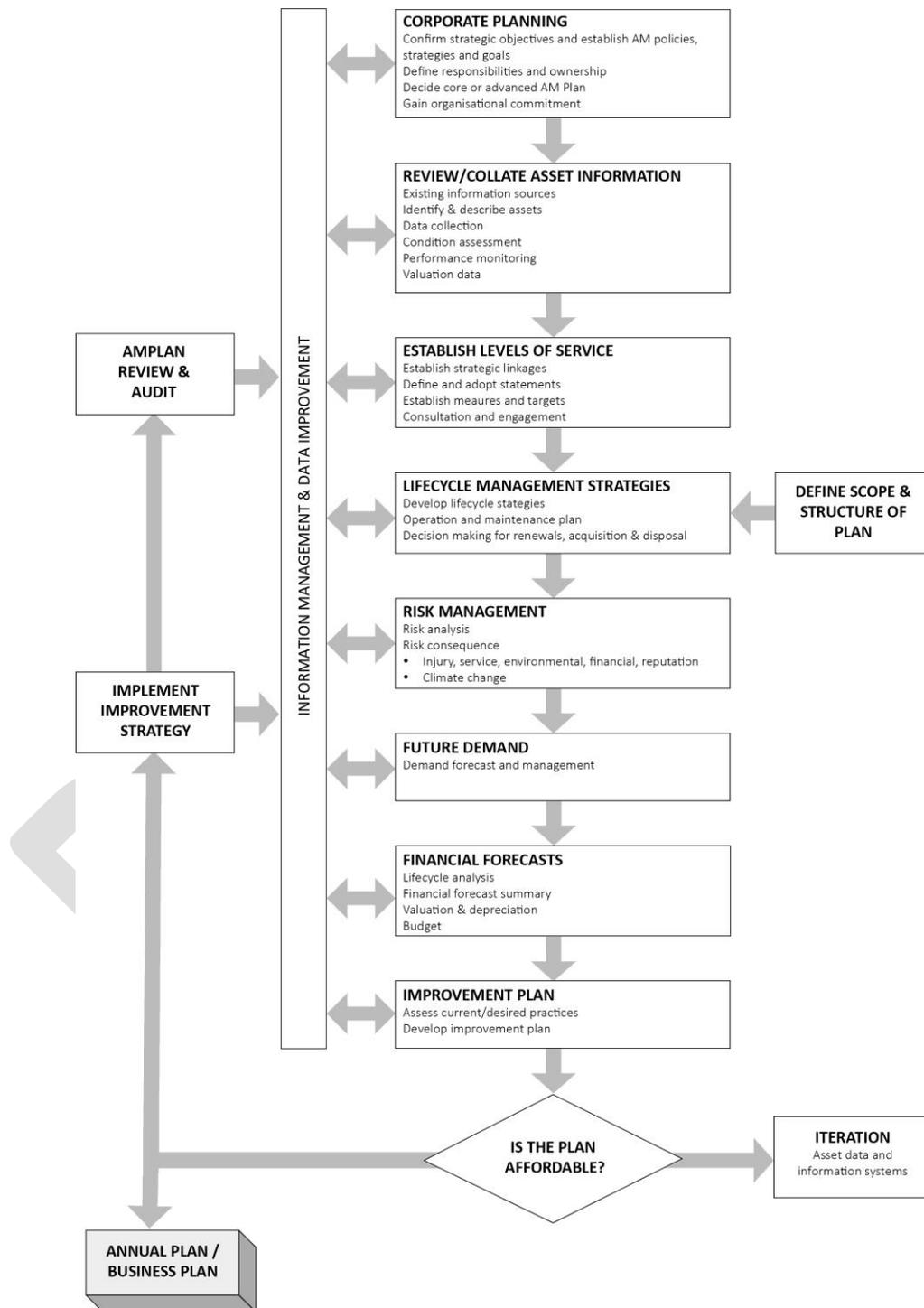
¹ Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2 | 13

■ ISO 55000²

A road map for preparing an AM Plan is shown below.

Road Map for preparing an Asset Management Plan

Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11



² ISO 55000 Overview, principles and terminology

3.0 LEVELS OF SERVICE

3.1 Customer Research and Expectations

This AM Plan is prepared to facilitate consultation prior to adoption of levels of service by the elected members. Future revisions of the AM Plan will incorporate customer consultation on service levels and costs of providing the service. This will assist the elected members and stakeholders in matching the level of service required, service risks and consequences with the customer’s ability and willingness to pay for the service.

We currently have no research on customer expectations. This will be investigated for future updates of the AM Plan.

3.2 Strategic and Corporate Goals

This AM Plan is prepared under the direction of the Tatiara District Council vision, mission, goals and objectives.

Our vision is:

“A vibrant, prosperous and connected community building its own opportunities.”

Strategic goals have been set by the Tatiara District Council. The relevant goals and objectives and how these are addressed in this AM Plan are summarised in Table 3.2.

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

Goal	How Goal and Objectives are addressed in the AM Plan
Support access to a diverse range of health and community services in the district	<ul style="list-style-type: none"> Providing appropriate aerodrome infrastructure supports access to critical health services provided by the Royal Flying Doctors Service
Provide appropriate infrastructure that supports our district’s growth	<ul style="list-style-type: none"> Assets are renewed, upgraded and maintained based on asset condition and risk assessment process Demand management and growth is considered as part of this plan for any future upgrades and renewal works

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the aerodrome service are outlined in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act 1999	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by Asset Management plans for sustainable service delivery.
Local Government (Financial Management and Rating) Amendment Act 2005	Impetus for the development of a Strategic Management Plan, comprising an (Infrastructure) Asset Management Plan and Long-Term Financial Plan.
Environment Protection Act	This Act places a ‘duty of care’ on people not to undertake activities that will cause environmental harm.
Work Health and Safety Act 2012	An Act to provide for the health, safety and welfare of persons at work.
Development Act	An Act to provide for planning and regulate development in the State; to regulate the use and management of land and buildings; to make provision for the maintenance and conservation of land and buildings where appropriate; and for other purposes.

3.4 Customer Values

Service levels are defined in three ways, customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- what aspects of the service is important to the customer,
- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 3.4: Customer Values

Service Objective:			
Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Safety	Complaints and requests for maintenance	2020: 2 requests 2019: 3 requests	No change expected
Accessibility	Complaints and requests regarding the availability of aerodrome services	2020: Multiple requests for additional parking area	Increase in complaints/requests
Quality	Request for upgrade of existing/new aerodrome assets	2020: Multiple requests for additional parking area	Increase in complaints/requests

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Condition How good is the service ... what is the condition or quality of the service?

Function Is it suitable for its intended purpose Is it the right service?

Capacity/Use Is the service over or under used ... do we need more or less of these assets?

In Table 3.5 under each of the service measures types (Condition, Function, Capacity/Use) there is a summary of the performance measure being used, the current performance, and the expected performance based on the current budget allocation.

These are measures of fact related to the service delivery outcome (e.g. number of occasions when service is not available or proportion of replacement value by condition %'s) to provide a balance in comparison to the customer perception that may be more subjective.

Table 3.5: Customer Level of Service Measures

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Quality of aerodrome assets	Condition inspections and safety audits	All aerodromes are in serviceable conditions. Majority of assets in good-fair condition.	No change expected
	Confidence levels		High	
Function	Provide appropriate aerodrome assets	Compliance with regulations and council policy/strategy/plans	Aerodrome assets comply with CASA standards.	No change expected
	Confidence levels		High	
Capacity	Do stakeholders have access to aerodrome services	Accessibility to aerodrome services	Aerodromes are easily accessible to users. Lack of parking space could cause accessibility issues.	Accessibility will decrease.
	Confidence levels		High	

3.6 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

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

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

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.³

Table 3.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan.

³ IPWEA, 2015, IIMM, p 2|28.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVELS OF SERVICE				
Acquisition /Upgrade	To provide appropriate facilities for aerodrome services	Requests for additional assets/upgrades to existing assets	Multiple requests from stakeholders for more aircraft parking area	0 requests
		Budget	<i>To be determined</i>	
Operation	Servicing and Management	Inspections and audits	Bi-monthly inspections and an annual report prepared by contractors	Current performance is adequate.
		Budget	\$15,700	
Maintenance	Provide appropriate facilities that meet stakeholder requirements	Number of requests for maintenance	2020 – 2 requests 2019 – 3 requests	0 requests
		Budget	\$15,700	
Renewal	To achieve the level of service expected from Council and members of the community	Planned & unplanned renewal projects	Runway 17/35 to be resealed as per recommendation from annual safety inspection.	Current performance is adequate.
		Budget	\$204,000	

Note: * Current activities related to Planned Budget.

** Expected performance related to forecast lifecycle costs.

It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

4.0 FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

4.3 Demand Impact and Demand Management Plan

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

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

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this AM Plan.

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population	Bordertown: 2953 Keith: 1355 Mundulla: 436 Padthaway: 318 Wolseley: 180 Willalooka: 143 Western Flat: 121 Total: 6794 <i>As per 2016 Census</i>	Population estimates projected to reduce slightly to 5995 within the district over period 2016 – 2031 (SA Planning Panel)	Nil	Monitor population projection data.
Demographic	Median Age: 42	Aging population – over 70s will increase by >20% in the period 2016 – 2031 (SA Planning Panel)	Increased in need for emergency services such as RFDS (one of the largest users of TDC Aerodrome assets)	Monitor population projection data.
Legislative Requirements	Aerodrome assets constructed and maintained according to current legislation	Increased design standards	Increased construction, maintenance and operational costs.	Monitor changes to legislation relating to aerodromes.

4.4 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit the Tatiara District Council to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long-term financial plan (Refer to Section 5).

4.5 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

How climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which we respond and manage those impacts.⁴

As a minimum we consider how to manage our existing assets given potential climate change impacts for our region.

Risk and opportunities identified to date are shown in Table 4.5.1

Table 4.5.1 Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Temperature	Increase of 0.6 to 1.3 °C above the climate of 1986-2005*	Minimal impact during this planning period.	Monitor future climate projections.
Rainfall	Natural variability is projected to predominate over trends due to greenhouse gas emissions.*	Minimal impact during this planning period.	Monitor future climate projections.

Note: * As per Climate Change in Australia future climate projections for the Murray Basin

Additionally, the way in which we construct new assets should recognise that there is opportunity to build in resilience to climate change impacts. Building resilience can have the following benefits:

- Assets will withstand the impacts of climate change;
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint

The impact of climate change on assets is a new and complex discussion and further opportunities will be developed in future revisions of this AM Plan.

⁴ IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

5.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the Tatiara District Council plans to manage and operate the assets at the agreed levels of service (Refer to Section 3) while managing life cycle costs.

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this AM Plan are shown in Table 5.1.1.

Aerodrome assets include runways, access roads, lighting and other related assets. Assets are located at the Tatiara District Council's three aerodromes (Bordertown, Keith and Padthaway).

Table 5.1.1: Assets covered by this Plan

Asset Category	Replacement Value
Runways (including extensions, turning nodes, aprons)	\$1,109,202
Lighting	\$380,000
Taxiways and access roads	\$21,200
Other (wind indicators, gable markers, cones)	\$52,336
TOTAL	\$1,562,738

All figure values are shown in current day dollars.

Add discussion about the age asset profile. Outline how past peaks of investment that may require peaks in renewals in the future. Comment on the overall age versus useful lives of the assets.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Bordertown	Not enough aircraft parking area, specifically for overnight parking

The above service deficiencies were identified from stakeholder feedback and internal analysis.

5.1.3 Asset condition

Condition is currently monitored by an annual independent audit of all council aerodromes by a qualified aerodrome inspector (CASA approved persons under CASA 139.320).

Condition is measured using a 1 – 5 grading system⁵ as detailed in Table 5.1.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the AM plan results are translated to a 1 – 5 grading scale for ease of communication.

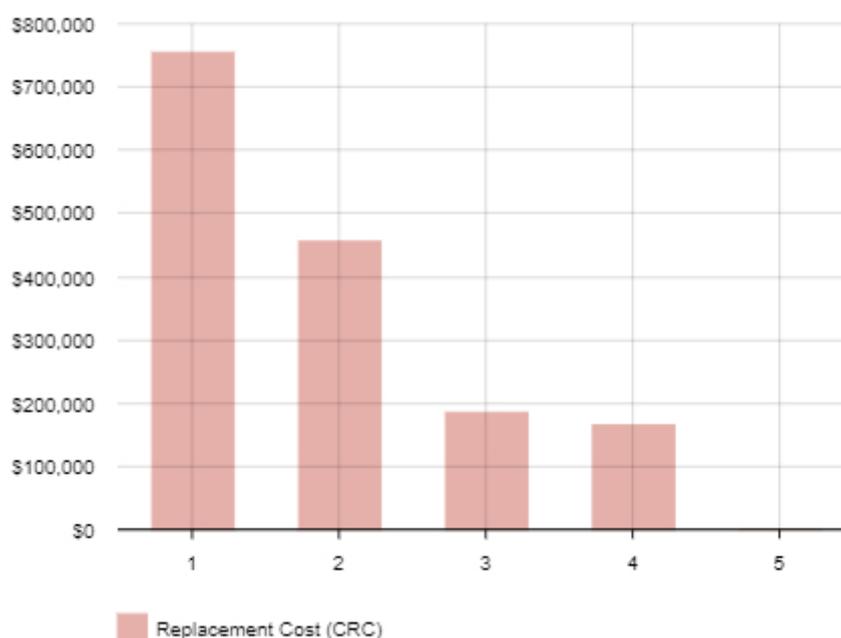
⁵ IPWEA, 2015, IIMM, Sec 2.5.4, p 2|80.

Table 5.1.3: Condition Grading System

Condition Grading	Description of Condition
1	Very Good: free of defects, only planned and/or routine maintenance required
2	Good: minor defects, increasing maintenance required plus planned maintenance
3	Fair: defects requiring regular and/or significant maintenance to reinstate service
4	Poor: significant defects, higher order cost intervention likely
5	Very Poor: physically unsound and/or beyond rehabilitation, immediate action required

The condition profile of our assets is shown in Figure 5.1.3.

Figure 5.1.3: Asset Condition Profile



All figure values are shown in current day dollars.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include cleaning, street sweeping, asset inspection, and utility costs.

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. Examples of typical maintenance activities include pipe repairs, asphalt patching, and equipment repairs.

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Maintenance Budget Trends

Year	Maintenance Budget \$
2019/20	\$20,315
2020/21	\$15,700
2021/22	\$17,740

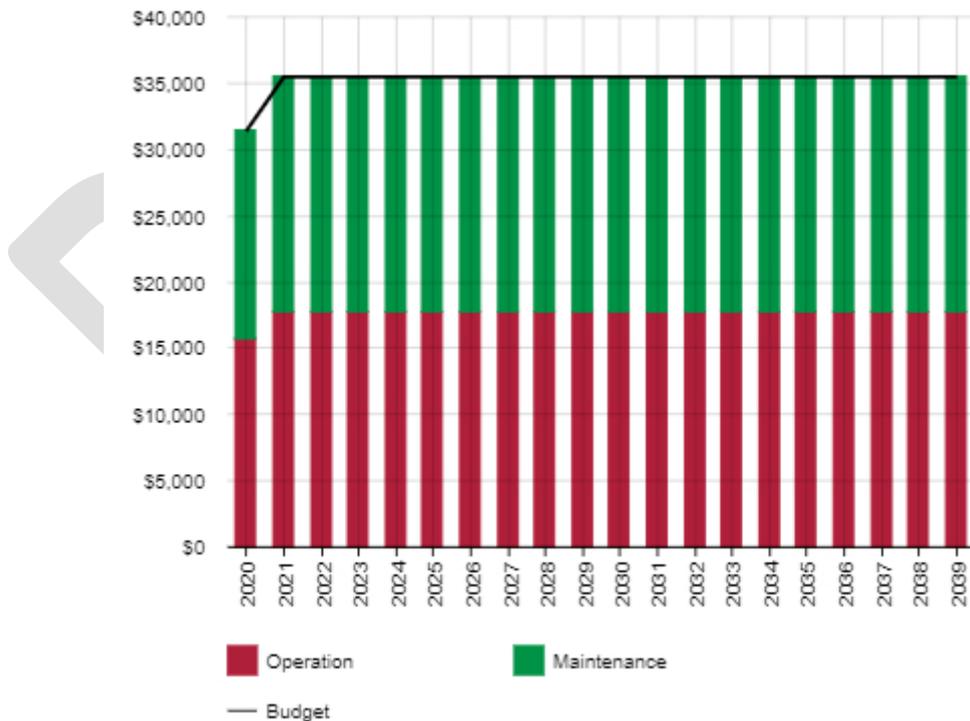
Maintenance budget levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified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

Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 5.2 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

Operations and maintenance is funded from the operating budget and grants where available.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3. Asset useful lives were last reviewed on November 2020.⁶

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Sealed surface (runway, apron etc.)	15
Pavement of sealed infrastructure	40
Unsealed surface (gravel runways, aprons etc.)	20
Runway markings	5
Gable Markers	10
Wind Sock	2
Cones	10
Illuminated Wind Indicator	30

The estimates for renewals in this AM Plan were based on the asset register method.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a playground).⁷

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and

⁶ Aerodrome Design Services, 2020, Tatiara Asset Management Plan Valuations November 2020 Update

⁷ IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.⁸

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

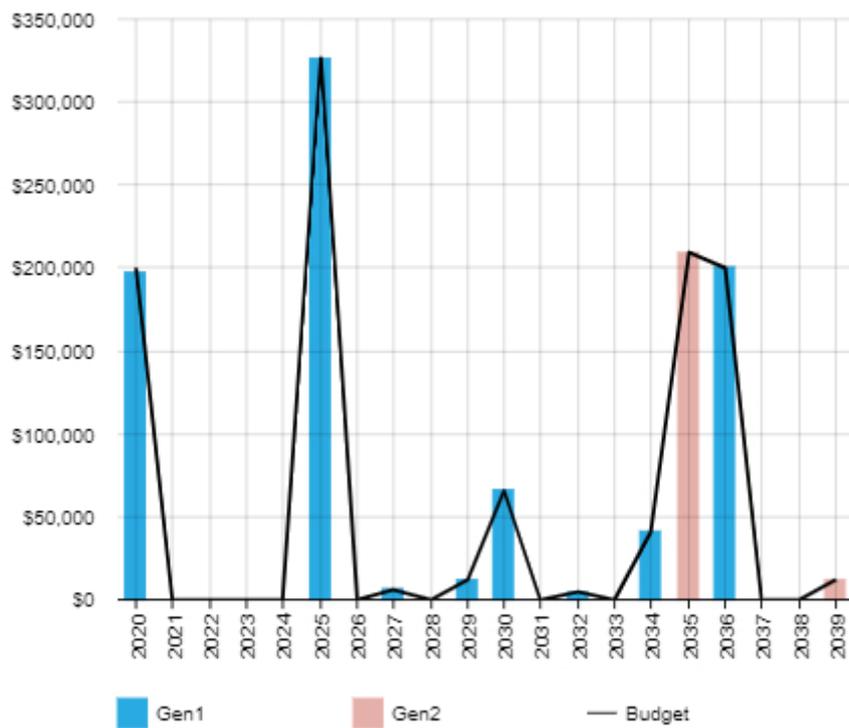
Table 5.3.1: Renewal Priority Ranking Criteria

Criteria	Priority
Asset Condition	1
Have high operational or maintenance costs	2
Resident/Industry Served	3

5.4 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.1. A detailed summary of the forecast renewal costs is shown in Appendix D.

Figure 5.4.1: Forecast Renewal Costs



All figure values are shown in current day dollars.

Renewals are to be funded from capital works programs and grants where available.

⁸ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

5.5 Acquisition Plan

Acquisition reflects are new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be donated to the Tatiara District Council.

5.5.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Entities needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term.

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding.

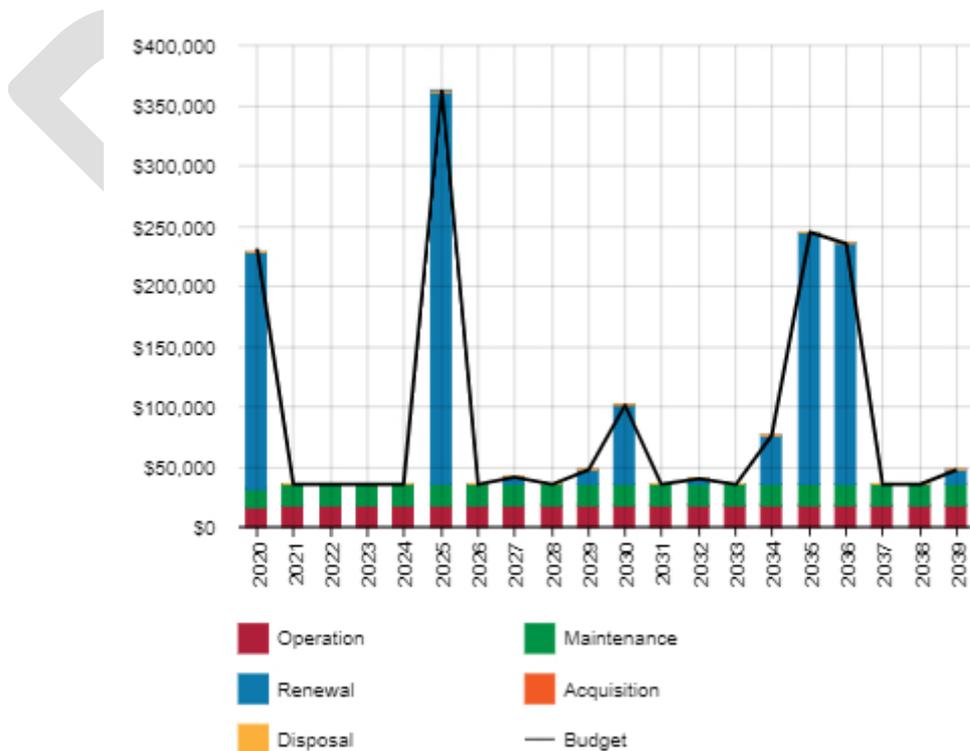
When an Entity commits to new assets, they must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long term sustainability. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the Entity.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.5.3. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to minimise the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 5.5.3: Lifecycle Summary



6.0 RISK MANAGEMENT PLANNING

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2018 as: ‘coordinated activities to direct and control with regard to risk’⁹.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a ‘financial shock’, reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Runway	Physical failure	Complete loss/significant reduction in aerodrome services (RFDS etc.)
	Essential service interruption	Aerodrome may no longer comply with regulations Significant increase in risk
Lighting	Physical failure Essential service interruption	Complete loss/significant reduction in aerodrome services at night

By identifying critical assets and failure modes an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

6.2 Risk Assessment

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

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

⁹ ISO 31000:2009, p 2

The process is based on the fundamentals of International Standard ISO 31000:2018.

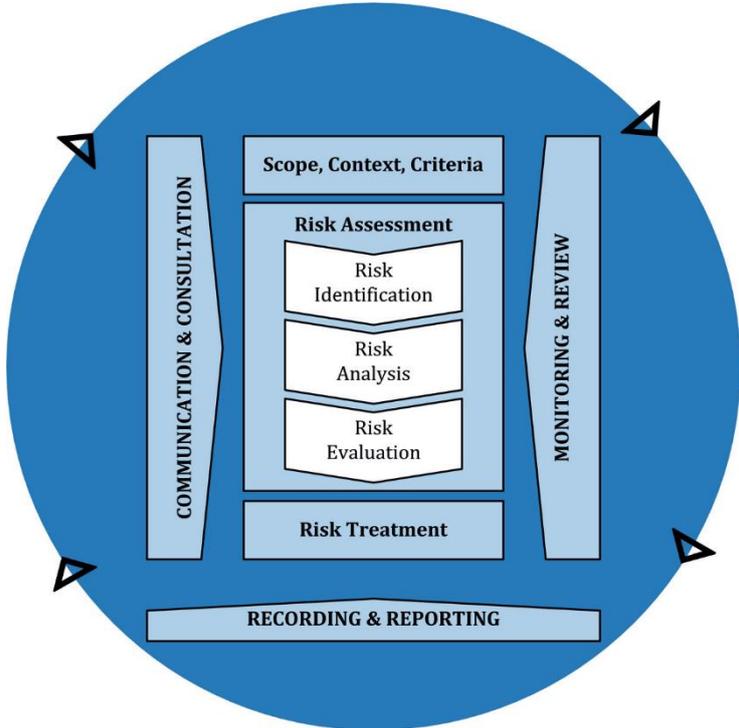


Fig 6.2 Risk Management Process – Abridged
 Source: ISO 31000:2018, Figure 1, p9

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

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a ‘financial shock’, reputational impacts, or other consequences.

Critical risks are those assessed with ‘Very High’ (requiring immediate corrective action) and ‘High’ (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2. It is essential that these critical risks and costs are reported to management and the elected members.

Table 6.2: Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H, M, L)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Runway/Apron	Aircraft may park on runway which can create risk for landing/taking off. Emergency services may lose accessibility to the airfield. (e.g. Ambulance being blocked from driving to RAF Aircraft for transfer)	H	Construct additional parking area. This may include purchasing land from surrounding properties. Line mark areas where parking is prohibited (e.g. in front of access gate to runway)	L	\$100,000 - \$150,000
All Assets	Unauthorised access to aerodrome. Risk of physical injury and damage to assets.	M	Lock entry gates with number pad locks.	L	\$500 - \$1500
Lighting	Failure of lighting system. This will prevent night operations	M	Regular inspection of lighting system. ** Procedures in place to manually turn on lighting when PAL system fails. **	L	
	Collision between aircraft and stock on runway leading to a significant aircraft accident.	H	Stock proof fence surrounding aerodromes. ** Regular inspections of perimeter fencing. **	L	
All aerodrome services	Loss of key staff.	M	Succession Plan Train more staff. **	L	
All assets	Fire. Significant damage to assets and a reduction in service capability.	H	Regular mowing and slashing. ** Regular inspections of aerodrome grounds. **	L	

	Damage to aircraft due to loose stones/aggregate on runways, taxiways and other surfaces.	M			
--	---	---	--	--	--

Note * The residual risk is the risk remaining after the selected risk treatment plan is implemented.
 ** Risk Treatment plan is already in place.

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to ‘withstand a given level of stress or demand’, and to respond to possible disruptions to ensure continuity of service.

We do not currently measure our resilience in service delivery. This will be included in future iterations of the AM Plan.

DRAFT

7.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the AM Plan for this service area. The two indicators are the:

- asset renewal funding ratio (proposed renewal budget for the next 10 years / forecast renewal costs for next 10 years), and
- medium term forecast costs/proposed budget (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹⁰ 100%

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

The forecast renewal work along with the proposed renewal budget, and the cumulative shortfall, is illustrated in Appendix D.

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall.

The forecast operations, maintenance and renewal costs over the 10 year planning period is \$89217 average per year.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the AM Plan and ideally over the 10 year life of the Long-Term Financial Plan.

7.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 7.1.3 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Forecast costs are shown in 2020 dollar values.

Table 7.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Operation	Maintenance	Renewal
2020	\$15,700	\$15,700	\$197,087
2021	\$17,740	\$17,740	\$0
2022	\$17,740	\$17,740	\$0
2023	\$17,740	\$17,740	\$0
2024	\$17,740	\$17,740	\$0

¹⁰ AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

Year	Operation	Maintenance	Renewal
2025	\$17,740	\$17,740	\$326,368
2026	\$17,740	\$17,740	\$0
2027	\$17,740	\$17,740	\$5,993
2028	\$17,740	\$17,740	\$0
2029	\$17,740	\$17,740	\$12,000
2030	\$17,740	\$17,740	\$65,636
2031	\$17,740	\$17,740	\$0
2032	\$17,740	\$17,740	\$4,610
2033	\$17,740	\$17,740	\$0
2034	\$17,740	\$17,740	\$40,937
2035	\$17,740	\$17,740	\$209,423
2036	\$17,740	\$17,740	\$200,000
2037	\$17,740	\$17,740	\$0
2038	\$17,740	\$17,740	\$0
2039	\$17,740	\$17,740	\$12,000

7.2 Funding Strategy

The proposed funding for assets is outlined in the Entity's budget and Long-Term financial plan.

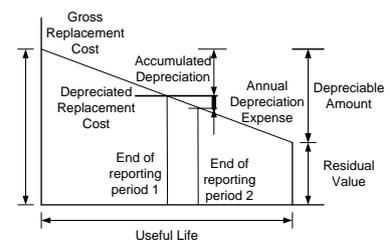
The financial strategy of the entity determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued at total replacement cost.

Replacement Cost (Current/Gross)	\$1,562,738.0
Depreciable Amount	\$1,562,738.0
Depreciated Replacement Cost ¹¹	\$913,088.0
Depreciation	\$54,059.0



7.3.2 Valuation forecast

Asset values are forecast to increase as additional assets are added to the aerodrome network.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

¹¹ Also reported as Written Down Value, Carrying or Net Book Value.

7.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AM Plan are:

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale¹² in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

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

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 7.5.2.

Table 7.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
------	-----------------------	---------

¹² IPWEA, 2015, IIMM, Table 2.4.6, p 2 | 71.

Demand drivers	A	Information is based on 2016 census data and climatechangeinaustralia.gov.au Murray Basin cluster report.
Acquisition forecast	B	There is currently no planned acquisition for the planning period.
Operation forecast	C	Operations expenditure has varied frequently in the past. Projected Operations expenditure is based on the annual average expenditure from 2014/15 – 2019/20.
Maintenance forecast	C	Maintenance expenditure has varied frequently in the past. Projected maintenance expenditure is based on the annual average expenditure from 2014/15 – 2019/20.
Renewal forecast - Asset values	A	Asset values are based on values provided by Aerodrome Design Services
- Asset useful lives	B	Asset useful lives is based on values provided by Aerodrome Design Services.
- Condition modelling	A	Condition modelling is based on feedback from Aerodrome Design Services safety inspections of TDC Aerodromes
Disposal forecast	B	There is currently no planned disposal for the planning period.

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

DRAFT

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices¹³

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data. The source of the data is ITVision's SynergySoft System and Microsoft Excel spreadsheets.

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is a combination of Univerus AssetFinda, ITVision's SynergySoft System and data from documents provided by Aerodrome Design Services.

8.2 Improvement Plan

It is important that an entity recognise areas of their AM Plan and planning process that require future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 8.2.

Table 8.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Consult with stakeholders to gather feedback and suggestions for new/upgrading assets	Asset Management	Staff time	February 2021
2	Add aerodrome asset data to the AssetFinda database	Asset Management	Staff time	30/06/2021
3	Establish a measure for resilience in service responsibility.	Asset Management	Staff time	Next AMP Comprehensive review – 4 yrs time
4	Review operations and maintenance chart of accounts and maintenance record systems with the aim of improving data confidence and accessibility to historic operations and maintenance data.	Asset Management/Finance	Staff Time	30/6/2021

8.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated annually to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets. These forecast costs and proposed budget are incorporated into the Long-Term Financial Plan or will be incorporated into the Long-Term Financial Plan once completed.

The AM Plan has a maximum life of 4 years and is due for complete revision and updating within 2 years of each Council election.

¹³ ISO 55000 Refers to this as the Asset Management System

8.4 Performance Measures

The effectiveness of this AM Plan can be measured in the following ways:

- The degree to which the required forecast costs identified in this AM Plan are incorporated into the long-term financial plan,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AM Plan,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 90 – 100%).

DRAFT

9.0 REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.
- IPWEA, 2020 'International Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2012, Practice Note 6 Long-Term Financial Planning, Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn6>
- IPWEA, 2014, Practice Note 8 – Levels of Service & Community Engagement, Institute of Public Works Engineering Australasia, Sydney, <https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn8>
- ISO, 2014, ISO 55000:2014, Overview, principles and terminology
- ISO, 2018, ISO 31000:2018, Risk management – Guidelines
- Aerodrome Design Services:

Tatiara Asset Management Plan Valuations November 2020 Update
Keith ASIR 2020
Padthaway ASIR 2020
YBOR ASIR JAN 2020 (Bordertown)

10.0 APPENDICES

Appendix A Acquisition Forecast

There are currently no planned acquisition projects for the planning period.

Possible future acquisition projects include;

Description	Estimated Expenditure
Construction of more aircraft parking area. May require the purchase of some surrounding land.	\$100,000 - \$150,000

DRAFT

Table B2 - Operation Forecast Summary

Year	Total Operation Forecast
2020	\$15,700
2021	\$17,740
2022	\$17,740
2023	\$17,740
2024	\$17,740
2025	\$17,740
2026	\$17,740
2027	\$17,740
2028	\$17,740
2029	\$17,740
2030	\$17,740
2031	\$17,740
2032	\$17,740
2033	\$17,740
2034	\$17,740
2035	\$17,740
2036	\$17,740
2037	\$17,740
2038	\$17,740
2039	\$17,740

DRAFT

Table C2 - Maintenance Forecast Summary

Year	Total Maintenance Forecast
2020	\$15,700
2021	\$17,740
2022	\$17,740
2023	\$17,740
2024	\$17,740
2025	\$17,740
2026	\$17,740
2027	\$17,740
2028	\$17,740
2029	\$17,740
2030	\$17,740
2031	\$17,740
2032	\$17,740
2033	\$17,740
2034	\$17,740
2035	\$17,740
2036	\$17,740
2037	\$17,740
2038	\$17,740
2039	\$17,740

DRAFT

Appendix D Renewal Forecast Summary

Confirmed renewal projects for the planning period include;

Year	Description	Budget
2020	Reseal of Bordertown Runway 17/35	\$200,000

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2020	\$197,087	\$200,000
2021	\$0	\$0
2022	\$0	\$0
2023	\$0	\$0
2024	\$0	\$0
2025	\$326,368	\$326,368
2026	\$0	\$0
2027	\$5,993	\$5,993
2028	\$0	\$0
2029	\$12,000	\$12,000
2030	\$65,636	\$65,636
2031	\$0	\$0
2032	\$4,610	\$4,610
2033	\$0	\$0
2034	\$40,937	\$40,937
2035	\$209,423	\$209,423
2036	\$200,000	\$200,000
2037	\$0	\$0
2038	\$0	\$0
2039	\$12,000	\$12,000

D.4 –Renewal Plan

Year	Location	Asset Type	Asset Description	Renewal Cost
2020	Bordertown	RWY 17/35	Seal Surface	\$166,170
2020	Bordertown	Extensions + turning nodes	Seal Surface	\$30,917
2025	Bordertown	Lights, transformers, cables & pits	Airfield Lighting	\$150,000
2025	Bordertown	Switchboard, PAALC	Airfield Lighting	\$30,000
2025	Bordertown	Illuminated Wind Indicator		\$14,000
2025	Bordertown	Gable Markers		\$4,440
2025	Bordertown	Cones		\$1,728
2025	Keith	RWY 17/35	Pavement Base	\$79,523
2025	Keith	South Turning Node	Pavement Base	\$9,681
2025	Keith	TWY Gravel	Pavement Base	\$3,458
2025	Keith	Apron	Seal Surface	\$13,370
2025	Keith	Illuminated Wind Indicator		\$14,000
2025	Keith	Gable Markers		\$4,440
2025	Keith	Cones		\$1,728
2027	Bordertown	TWY to hangars	Pavement Base	\$2,766
2027	Bordertown	Gravel apron turning area	Pavement Base	\$3,227
2029	Padthaway	Wind indicator		\$12,000
2030	Padthaway	RWY 16/34	Pavement Base	\$39,070
2030	Padthaway	Taxiway & Apron	Pavement Base	\$9,220
2030	Keith	Apron	Pavement Base	\$17,346
2032	Bordertown	Gravel Access Road	Pavement Base	\$4,610
2034	Bordertown	RWY 13/31 (US)	Pavement Base	\$40,937
2035	Bordertown	Extensions + turning nodes	Seal Surface	\$30,917
2035	Bordertown	RWY 17/35	Seal Surface	\$166,170
2035	Bordertown	Cones		\$1,728
2035	Bordertown	Gable Markers		\$4,440
2035	Keith	Cones		\$1,728
2035	Keith	Gable Markers		\$4,440
2036	Keith	Hard wired solar lighting system	Airfield Lighting	\$200,000
2039	Padthaway	Wind indicator		\$12,000

Appendix F Budget Summary by Lifecycle Activity

Table F1 – Budget Summary by Lifecycle Activity

Year	Operation	Maintenance	Renewal	Total
2020	\$15,700	\$15,700	\$200,000	\$231,400
2021	\$17,740	\$17,740	\$0	\$35,480
2022	\$17,740	\$17,740	\$0	\$35,480
2023	\$17,740	\$17,740	\$0	\$35,480
2024	\$17,740	\$17,740	\$0	\$35,480
2025	\$17,740	\$17,740	\$326,368	\$361,848
2026	\$17,740	\$17,740	\$0	\$35,480
2027	\$17,740	\$17,740	\$5,993	\$41,473
2028	\$17,740	\$17,740	\$0	\$35,480
2029	\$17,740	\$17,740	\$12,000	\$47,480
2030	\$17,740	\$17,740	\$65,636	\$101,116
2031	\$17,740	\$17,740	\$0	\$35,480
2032	\$17,740	\$17,740	\$4,610	\$40,090
2033	\$17,740	\$17,740	\$0	\$35,480
2034	\$17,740	\$17,740	\$40,937	\$76,417
2035	\$17,740	\$17,740	\$209,423	\$244,903
2036	\$17,740	\$17,740	\$200,000	\$235,480
2037	\$17,740	\$17,740	\$0	\$35,480
2038	\$17,740	\$17,740	\$0	\$35,480
2039	\$17,740	\$17,740	\$12,000	\$47,480

DRAFT