Shire of Wyndham East Kimberley

East Kimberley Regional Airport
Asset Management Plan – Rev 2

September 2017

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Core Business Australia Pty Ltd PO Box 797 BUSSELTON WA 6280 Office: +61 8 9754 1117 Mobile: +61 418 931 067 Email: bruce@corebusiness.net.au Web: corebusiness.net.au Cover: Terminal entrance as viewed from 'Airside'	**Document:** Shire of Wyndham East Kimberley Asset Management Plan **Client:** Shire of Wyndham East Kimberly **Project Manager:** Bruce Lorimer **Author:** Mark Weller & Bruce Lorimer **Date:** February 1 2017 **Synopsis:** This document is a Core Asset Management Plan for the Shire of Wyndham East Kimberly. The plan is aligned with the WA Department of Local Government Asset Management Framework and the IPWEA International Infrastructure Management Manual. The AM Plan sets out how the Shire will manage service delivery, provision, maintenance and disposal of airport infrastructure assets over their lifecycle.

CONSULTANTS DISTRIBUTION SCHEDULE

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Version 1	June 30 2014	Draft issued to the client for review	226 SWEK KNX Asset Management Plan (Ver 1).docx
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Version 3	30th July 2014	Minor revisions: update of future demand section based on recent events.	226 SWEK KNX Asset Management Plan (Ver 3).docx
Version 4	29th August 2014	Revision of Risk Management Section following receipt and review of further information relating to the Shires Corporate Risk Management process.	226 SWEK KNX Asset Management Plan (Ver 4).docx
Version 5	1st February 2017	Revision 2 of the AMP to update information	506 SWEK EKRA Asset Management Plan - Rev 2 (Ver 5).docx
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Version 7	11th July 2017	Revision 2 Final Version following Client Review	506 SWEK EKRA Asset Management Plan - Rev 2 (Ver 7).docx
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Version 9	20th September 2017	Revision 2 Final Version following further Client Review.	506 SWEK EKRA Asset Management Plan - Rev 2 (Ver 9).docx
Version 10	9th October 2017	Revision 2 – Minor amendments	506 SWEK EKRA Asset Management Plan - Rev 2 (Ver 10).docx

Shire of Wyndham East Kimberley

East Kimberley Regional Airport

Asset Management Plan

2017 - 2027

Revision 2

October 2017

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1.0 Executive Summary

This asset management plan is the second iteration of the East Kimberley Regional Airport (EKRA) Asset Management Plan (AMP). first developed in 2014. The current version has been updated to better describe the assets that comprise the EKRA, update asset condition information, update the asset renewal demand model for existing assets and to consider the long-term renewal demand implications of new assets proposed by the EKRA Master Plan 2017 which was developed in parallel with this revision of the AMP.

The EKRA currently comprises $74.7m of assets of which $52.4m[1] are depreciable assets which generate an Annual Average Renewal Funding Demand over 20 years of $1.88m / annum.

The airport currently generates annual income of approximately $3.9m[2] and has an annual operating expenditure of $3.03m (excluding depreciation). This results in an operating surplus of approximately $870k that is available to invest in Capital Renewal and / or Asset Expansion.

Asset Summary by Class	Model 1 Baseline Estimated Renewal Value ($)	Model 2 Future Estimated Renewal Value ($)	Increase in Asset Base
Land	4,557,000	4,557,000	0
Investment Property	0	0	0
Buildings	11,614,759	15,637,759	4,023,000
Furniture & Equipment	316,424	616,424	300,000
Plant & Equipment	6,297,964	7,610,964	1,313,000
Infrastructure - Roads (Formation)	0	0	0
Infrastructure - Roads (Pavement)	0	0	0
Infrastructure - Roads (Seal)	0	0	0
Infrastructure - Roads (Kerb)	448,165	472,165	24,000
Infrastructure - Bridges	0	0	0
Infrastructure - Drainage	1,058,650	1,103,150	44,500
Infrastructure - Parks, Gardens & Reserves	0	0	0
Infrastructure - Pathways	301,856	301,856	0
Infrastructure - Airports (Depreciable)	32,081,738	51,428,425	19,346,687
Infrastructure - Airports (Non - Depreciable)	17,732,190	25,237,190	7,505,000
Infrastructure - Water Supply	0	0	0
Infrastructure - Sewerage	150,000	1,050,000	900,000
Infrastructure - Other	183,060	205,560	22,500
Total Estimated Renewal Value of All Assets	**74,741,806**	**108,220,493**	**33,478,687**
Total Estimated Renewal Value of Depreciable Assets	**52,452,616**	**78,426,303**	**25,973,687**

Table 1: EKRA Asset Summary of existing Asset in 2017 and Future Assets Proposed by the EKRA Master Plan 2017

The recently prepared, EKRA Masterplan 2017 has identified the need to increase the airports capacity in order to cope with future travel demands. The best way identified to do this is to modify the current runway, taxiway and apron and expand the airport to enable larger aircraft capable of directly reaching all airports in Australia and key destinations in south east Asia more economically. The adopted design aircraft are the Boeing 737-800 or Airbus A320. The total value of the runway extension project is in the order of $21m.

This will require the current 1,800m x 30m wide runway to be lengthened to 2,400m (in the short term) and ultimately widened to 45m (in the long term). This will also require modification to taxiways; RPT apron; new PAPI (landing navigational system), runway edge lighting and an increase in terminal size.

Over time it is also proposed to diversify operating income sources so that landing and passenger handling fees can remain at economically viable levels and ensure there is no reliance in subsidies from the Shire's general revenue.

While asset expansion is proposed to occur over several years, the main modification, being the increase in runway length is proposed to occur in the short to medium term (~4 years) and expected to largely be funded by grants from State and /or Federal Government.

[1] This figure excludes mainly road, runway, taxiway and apron formation. For a detailed list of which asset groups are considered depreciable and which are not, refer to the asset summary table in Section 6.5

[2] See Appendix E for detailed calculation of the EKRA Operating Budget.

The total estimated capital investment envisaged by the EKRA Master Plan 2017 results in a ~$33.5m[3] increase in assets of which ~$26.0m are estimated to be depreciable assets. This brings the total asset base to $108.2m, with $78.4m being depreciable assets that will generate ongoing renewal funding demand. It is estimated that the proposed new depreciable assets will increase Annual Average Renewal Demand from $1.88m[4] / annum to $2.45m[5] / annum, a significant increase.

The Shire's 2017/18 Corporate Business Plan currently identifies an average of $1.69m in asset renewal funding over the next 4 years. Beyond the first 4 years, an indicative amount of $762k/annum has been allocated to Capital Renewal across all asset groups. This is equivalent to the current Depreciation Expense allowed for the Airport Operating budget. This amount will need to increase to the long-term average of $2.45m estimated by the model over 20 years.

The future annual average funding gap is estimated to be $0.94m /annum based on existing assets and $1.50m/annum based on future assets.

The Shire has a philosophy of not subsidising airport operations from rates, therefore any increase in revenue to cover future asset renewal needs to come from an increase in airport operating revenue. It is on this basis that the EKRA Master Plan 2017 has identified initiatives that will increase the level of service provided to the community in addition to increasing operating income to help fund future renewal demand. The EKRA Master Plan 2017 forecasts passenger numbers to increase at a rate of 4% per year taking numbers from 74,000 pax / annum to 215,000 pax / annum in 20 years.

Some of the EKRA Master Plan 2017 initiatives include modifications to the Runway, Taxiways, Aprons and Terminal to allow passenger numbers to increase while other initiatives provide for future revenue streams (e.g. solar farm, commercial development).

If the $0.94m/annum funding gap were to be closed simply through the increase of current day airport operating income of $3.9m, airport operating revenue would need to increase 2.05% every year over 18 years. Similarly, to cover the asset renewal from airport operating revenue and including the new assets, airport operating revenue would need to increase 3.05% every year over 18 years.

Airport operating revenue could be increased by additional landing and passenger handling fees however this would place significant pressure on aircraft operators and my result in revenue decreasing. As an alternative to increasing airport operating revenue, continuing the recent trend of well targeted funding applications in addition to diversifying income sources (as identified by the EKRA Master Plan 2017) will significantly assist in minimising (or even reducing) the reliance on existing airport operating income sources.

Developing comprehensive feasibility and business cases will be key to successfully understanding the long-term implications of income diversification options and achieving grant funding from other tiers of government.

[3] Note that this is not the full value of all new assets identified by the EKRA Mater Plan 2017 as several assets require feasibility studies to be undertaken in order to identify firstly if the project should go ahead and secondly the financial implications of the capital investment. The estimate figure includes a small allowance for existing assets being replace such the $2.9m Visual Approach Slope Indicator (VASIS) Landing System being replaced by double sided Precision Approach Path Indicator (PAPI) valued at $120k.

[4] Estimated from the Asset Renewal Demand model detailed a Section 7.0

[5] Estimated by adding the new asset proposed by the EKRA Master Plan 2017 and the Shire's Draft Corporate Business Plan, to the Asset Renewal Model detailed in Section 7.0

2.0 Introduction

The Shire of Wyndham East Kimberly (Shire) is responsible for the provision of numerous community services including the provision of airport services via capital, operating and maintenance funding of the East Kimberley Regional Airport (EKRA). The Shire also operates a smaller aerodrome at Wyndham, however this plan focusses on the EKRA, being the main airport in the region,

To help underpin the continued sustainable delivery of airport services, the Shire has developed this Asset Manage Plan (AMP) setting out the predicted future financial demands over the next 20 years to fund the ongoing renewal and maintenance of airport infrastructure assets.

The AMP has been developed alongside preparation of a new Airport Master Plan (EKRA Master Plan). The EKRA Master Plan identifies the potential new infrastructure required to keep pace with growth of the Kimberley region. The EKRA Master Plan includes the trigger points that will require the new infrastructure to be added to existing infrastructure to cope with the growth and change in demand for aviation services.

Importantly, this AMP considers the major components of new infrastructure proposed by the EKRA Master Plan and helps to inform the Shire in relation to the financial implications of developing new infrastructure so that this can be planned for in a way that does not financially hamper the Shire's ability to look after its existing airport infrastructure assets.

To achieve this, the AMP does the following:

- Identifies and documents the assets that comprise the EKRA;
- Documents asset renewal value and useful life;
- Documents asset current condition;
- Identifies the proposed level of service for Asset Renewal;
- Estimates the long term cashflows required to achieve the nominated level of service for asset renewal of existing assets;
- Estimates the additional cashflow demands that will be required when new major asset components are developed.

In recent years the Shire has been successful in securing capital grants from other tiers of government to help fund renewal of existing infrastructure (e.g. reseal of runway) and development of new infrastructure (e.g. construction of a new and upgraded terminal).

The new EKRA Masterplan proposes a significant amount of new infrastructure and upgraded infrastructure, much of which is proposed to assist with increasing and/ or diversifying airport income, for example;

- Commercial Precincts (Road house, services and commercial development)
- Aviation Precinct
- Extended Runway (accommodating larger aircraft) predicted to produce a 4% annual increase in passenger numbers.

Despite the opportunities provided by the proposed new infrastructure, long term sustainability will also be dependent upon securing capital grants from third parties.

2.1 Purpose & Scope

The Asset Management Plan (AMP) has been prepared to show how airport infrastructure assets and airport service delivery will continue in line with community aspirations as set out in Council's Strategic Community Plan (SCP) and Corporate Business Plan (CBP).

The AMP contains the basic tools to enable informed decisions on the allocation of resources in order to maintain Airport infrastructure assets under the Shire's care, control and responsibility to a standard reflective of the community's desires, affordability and importantly in relation to an airport, regulatory and safety compliance.

This AMP aligns with the Shire's broader asset management framework.

2.1.1 Asset Management Plan Inputs

This AMP documents three main inputs being;

- **Asset Description** – Details about what assets comprise the EKRA and key information relating to those asset components such as location, condition, value, expected life.
- **Asset Standards** – Information that ties the asset to the business objectives of the Shire and the purpose of the EKRA. It also considers future demand for current and new assets.
- **Asset Management Processes** – These are the decision-making tools used to develop the outputs of the asset management Plan.

Asset Management Plan Outputs

There are three main outputs documented in the AMP, these are

- **Operation and Maintenance Strategy** – This sets out at a high level, the operation and maintenance activities required to firstly operate the asset and secondly ensure asset components reach their intended life and remain operational.
- **Renewal and Replacement Strategy** – This sets out the cashflows and activities required to ensure major asset components are replaced at their optimum time.
- **Capital Investment Strategy** – documents the financial requirements for upgraded and new assets to meet future service delivery demand.

Finally, the AMP documents methodologies and improvement recommendations to help ensure that what is proposed by the AMP actually happens so that the next version of the AMP is better than the previous version. The above is set out in Figure 1 below.

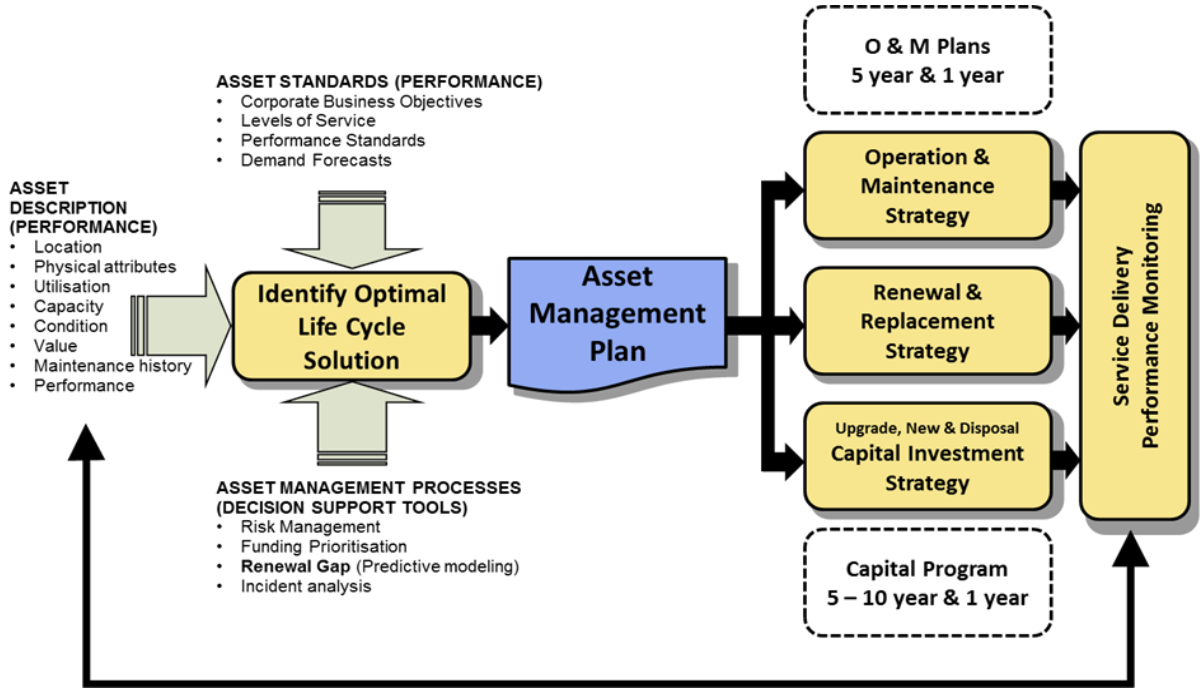


Figure 1: Asset Management Plan Framework

2.2 Plan Format

This Plan aligns with the Asset Management Plan format set out in the Institute of Public Works Engineering Australia's (IPWEA) International Infrastructure Management Manual (IIMM).

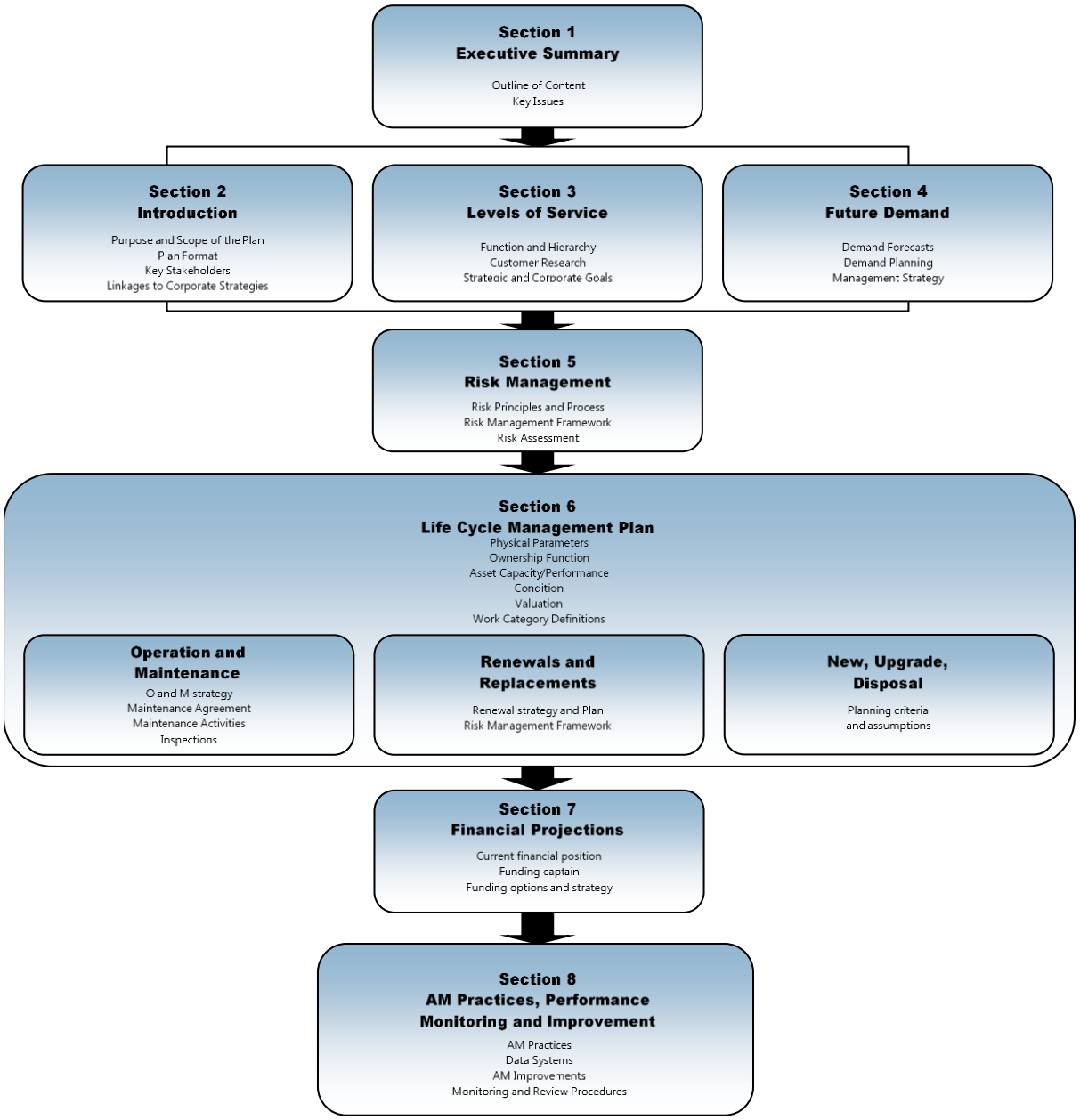


Figure 2: Format of the AMP

2.3 The Shire of Wyndham East Kimberly

Shire of Wyndham East Kimberly covers over 112,000 square kilometres within the north-eastern portion of the State. Geographically, the Shire is the northernmost local government area within the State, bound by the Northern Territory border to the east, the Timor Sea to the north and Indian Ocean to the North West, the Shire of Halls Creek to the south and the Shire of Derby-West Kimberley to the south west.

The Shire has a diverse and frequently spectacular landscape featuring rugged ranges, gorges, wetlands and a unique and remarkable coastline. The Shire has a diverse and dynamic economy, primarily driven by mining, agriculture and tourism. Significant and largely untapped mineral resources, the massive agricultural potential presented with the development of Stage 2 of the Ord River Irrigation Area (ORIA), and the increasing visitors to this physically unique corner of the world requires a sustainable and strategic approach that maximises its economic base, protects its environmental values and enhances the social conditions and quality of life for its indigenous and non-indigenous populations.

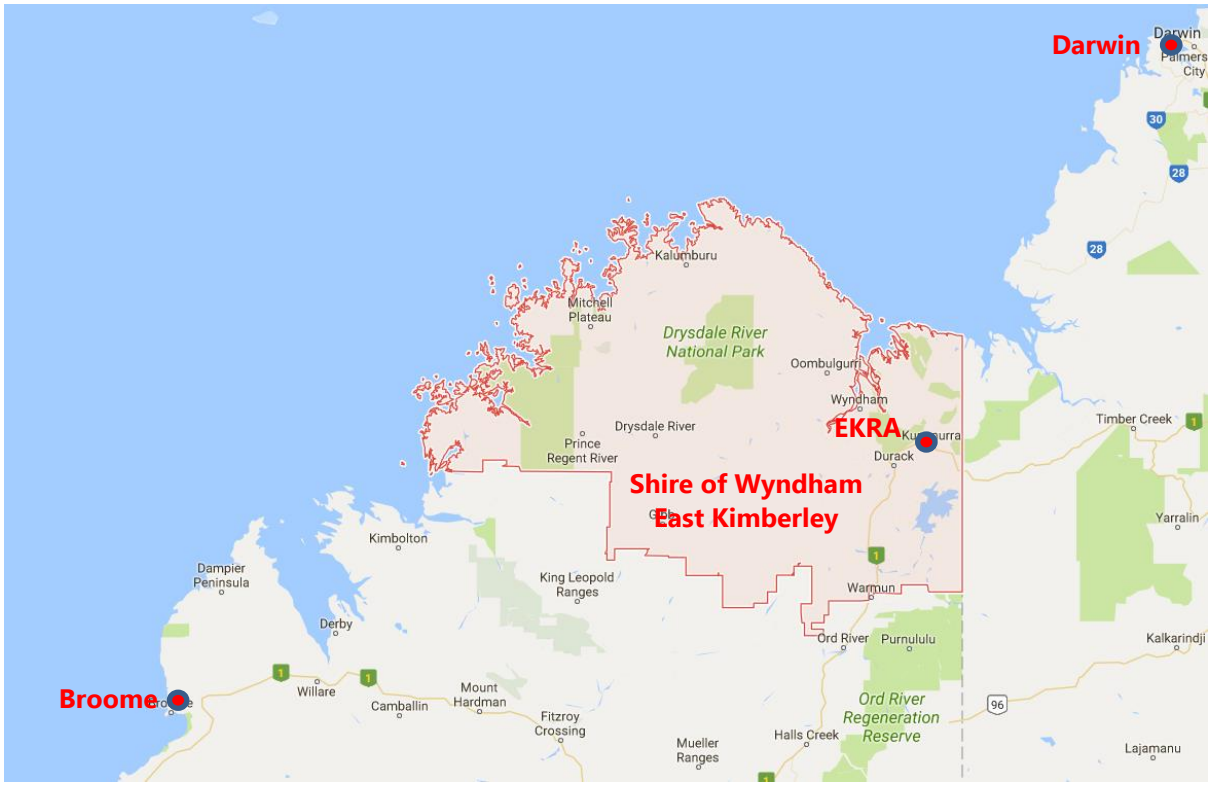


Figure 3: Location of the Shire of Wyndham East Kimberly

2.4 East Kimberley Regional Airport

The East Kimberley Regional Airport is a regional airport located on the Victoria Highway, Kununurra, 3,200km north east of Perth, Western Australia and 830km south west of Darwin NT by road. The airport is owned and operated by the Shire of Wyndham East Kimberley and is a certified Aerodrome and a security control Airport. The airport caters for regular passenger transport (RPT) air services, currently handling 46 RPT services per week, as well as charter and private flight operations.

The terminal building contains a café, which provides refreshments and a licensed area, as well as hire car facilities during the times of regular passenger aircraft transfers.

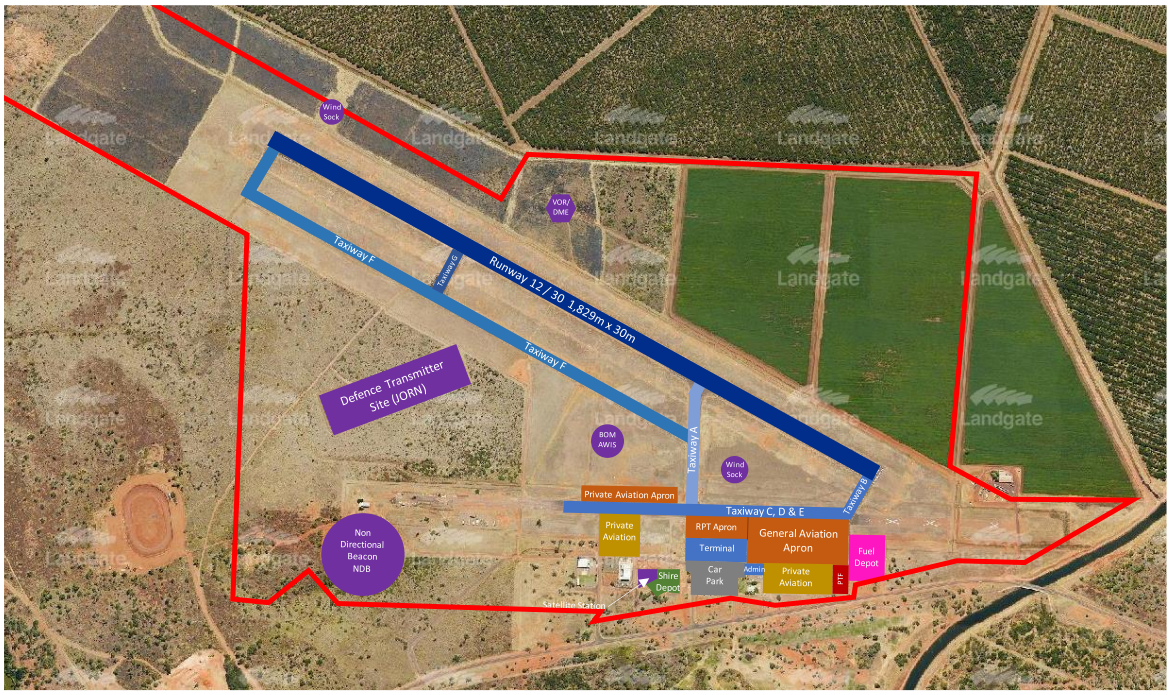


Figure 4: Major Asset Components that comprise the EKRA (Source: Landgate, Date of Photography 18/08/2016)

2.5 East Kimberley Regional Airport Master Planning

In parallel to the preparation of this updated EKRA Asset Management Plan the new Master Plan 2017 has been developed. The latter updates the previous Master Plan completed in 2013 reflecting current proposals and recent works. The new EKRA Masterplan 2017 should be read in conjunction with this asset management plan.

2.6 Community Engagement

A key aspect in development of an asset management plan is understanding the needs of the asset user.

For the purposes of the AMP, Stakeholders have been divided into four stakeholder categories - Internal / External and Primary / Secondary Stakeholders as follows;

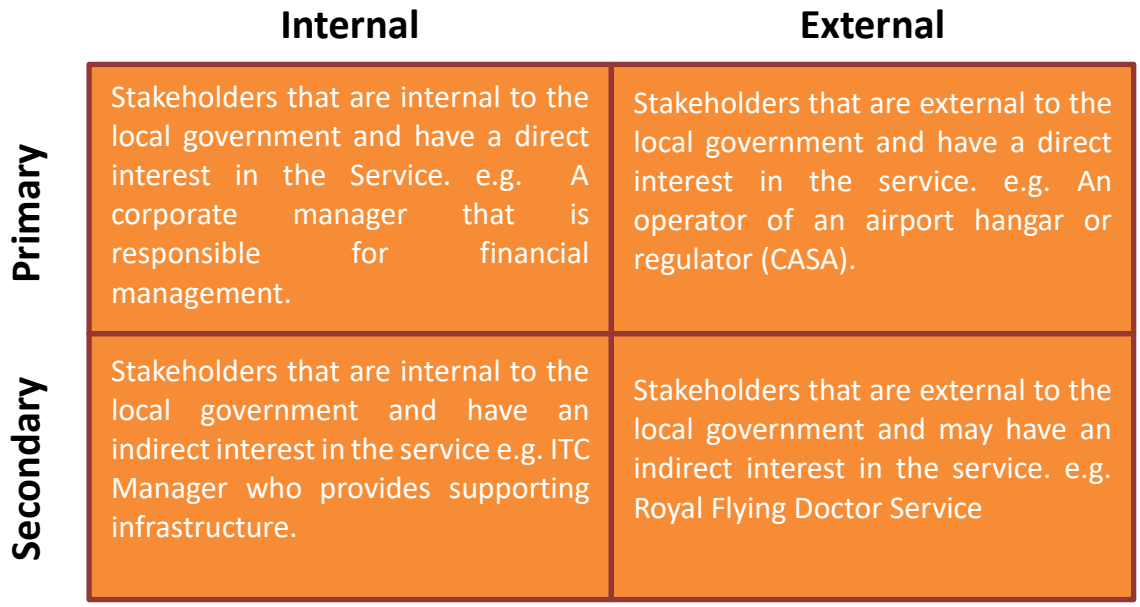


Figure 5: Classification of Stakeholders

2.6.1 Key Stakeholders in relation to All Asset Groups

The following stakeholders apply to all Airport Asset Groups.

EKRA Management	Internal	External
Primary	• Elected Members. • Corporate Services Team. • Airport Works Team.	• Civil Aviation Safety Authority. • Regular Passenger Transport Companies (Airlines). • Commercial Operators. • Private Operators and Representative Bodies (i.e. Aircraft Owners & Pilots Association of Australia)
Secondary	• Community Development Team. • Governance.	• Wider Community. • Department of Planning. • Department of Transport. • WA Police. • St John Ambulance. • Fire and Emergency Services. • Department of Regional Development & Lands. • Department of Conservation and Environment.

Table 2: Key Stakeholders related to Airport Assets

2.7 Stakeholder Engagement

As part of the development of the EKRA Masterplan 2017, stakeholder engagement occurred through a series of meetings to identify the future needs for airport services and related issues.

A summary of the engagement results are as follows;

2.7.1 Primary Internal Stakeholders

Stakeholders

- Mr Ron Yuryevich, Commissioner
- Mr Carl Askew, Chief Executive Officer
- Mr David Klye, Director Infrastructure

Issues Raised (in no particular order or priority)

- Quarantine land needed to north possibly implement via land swaps.
- Relationships with clients important – closure for three months to undertake any expansion would be considered unacceptable.
- Recognised that a 45m wide runway may not be justified at present.
- It is envisaged there will be growth in air traffic as a result of industry growth e.g. prawn freight and tourism.
- There is a need to identify other commercial opportunities.
- NBN – no current plans for airport fibre access.
- Potential to access funding under the Federal Government's Building Better Regions scheme.
- Fuel Depot operation to east be addressed and land audit.
- Consider access to north side of precinct – likely 20-30 year timeframe in Master Plan.
- Aircraft parking fees separate to other fees – identify in Plan as current constraint.
- People wish to buy land – suggest provision on sale to develop in defined period i.e. five years.
- Currently limited available Airport land supply – effect been $600k for a small block.
- Video produced for Winton Airport and how manages – promotion of area including tourism.
- Project Sea Dragon - in10-25 years be largest producer of prawns in world (10,000ha of ponds and 100,000t produce annually). Current model to freeze and sea freight from Wyndham – scope for premium product to be distributed by air-freight.
- Air fares to north of WA are significantly more expensive than other routes.
- Need to recognise that smaller local governments are unable to fund major airport developments.
- Cost of passenger fares and freight significant for isolated communities.
- RADS scheme is good – but total value is low. Need opportunity to deliver larger projects.

2.7.2 Primary External Stakeholders

Stakeholders Engaged

- Mr Michael McConachy (Aviair and Helispirit)

Issues Raised (in no particular order or priority)

- View runway extension project sooner than later.
- This will test passenger interest to / from eastern States.
- Suggest widen current runway at turning nodes then later to 45m width to full length.
- Run-ups are currently in poor condition.

- Land is available – problem private blocks are constraining development.
- Sale of new blocks should include development requirement.
- Land leases need sufficient tenure period e.g. Karratha 21 + 21 years.- this matter can hold-back development.
- In own planning seek to expand hangar/office to create additional space – fire regulations are a constraint to development if over 500m^2 – need water supply or on-site supply – latter not practicable as cost $300K per hangar and land needs.
- See solar as power option – need to address collectively.
- Water Corp supply not sufficient for Airport.
- Suggest Shire and operators share funding costs for additional infrastructure – he would personally contribute $100k.
- On-site sewer systems can be sufficient with water provided for irrigation of landscaped areas.
- In terms of facilities:
    - Taxiways work well.
    - Run-up bays need resurfacing for GA aircraft.
    - Need simple hangars for small users and room to bring aircraft under cover.
    - Terminal fantastic compared to Broome.
    - Pay parking not supported – wider Shire issue.
- Increased tourism – compared to Uluru (300,000 passengers pa) Bungle Bungles has more potential – currently only 20,000 visitors pa – 18,000 drive-in.
- Lack of direct flights and marketing.
- Aim to be more attractive and friendly – not more infrastructure.
- Bigger picture – have friendly and inviting airport.

2.7.3 Secondary Internal Stakeholders

Stakeholders Engaged

- Workshop held with key Officers

Issues Raised

- No matters to action

2.7.4 Secondary External Stakeholders

Stakeholders Engaged

Public meeting held in Kununurra and one-on-one sessions with;

- Brad Williams (Kununurra First National):
- Liz Kirby (Kimberley Development Commission):
- Vivian McEvoy (Kununurra Visitor Information Centre):

Issues Raised

- Kununurra businesses not rely on drive-by trade – is a contained population.
- Town is physically constrained by hills and poor soils for development.
- 2,400 households currently – 50:50 between Kununurra and Lakeside.
- Lakeside limited due to flood risk – further development to east. Next stage opposite Highway hold 300-400 dwellings.
- Potential canal style development at Lily Lagoon.
- Town centre growth through redevelopment/relocation of Leisure Centre and Old Shire Offices.

- Current town power site has potential for 80 additional dwellings. To north is underutilised land e.g. around Hardware Store.
- Current Shire Depot has redevelopment potential and access to deep sewer.
- Economic growth due to Sea Dragon – be 10 years before utilise full land allocation.
- Airport Precinct has potential for developments that people not visit often – stay a while, high land usage and release current sites. Such as large mixed businesses including car yards and some smaller commercial units – not yet market demand for a Bunnings.
- Suggest staged subdivisions at Airport – if sell use Landcorp model with development timeframe. Recognise airport operators prefer leasehold.
- Ultimately (30 years) move airport 30km down the Valley.
- Power – 100% hydro – means no credits for solar.
- Highway access – proposal to upgrade from the west due to current turn across narrow dam bridge that was not designed for traffic. Depending on route project cost could be $150m.
- Development market currently 'negative' – cost of land and construction less than sales.
- Aware of Airport location and physical constraints.
- Development has slowed with completion of current Ord development stage – expect more activity with next stage.
- Sea Dragon has potential not just for NT but Kununurra as a major service centre.
- Argyle Diamond Mine will close in 10 years.
- Some mines are out of production – expect these to come back on-line.
- Tourism comprises diversified visitors using RPT; charter flights; scenic flights and private air traffic.
- Recent growth sectors been overseas visitors while grey nomads spend less.
- In future major industry may be tourism – scope to better utilise wet season.
- Airport is ready for industrial diversification – through tourism; agriculture; Ord Irrigation/Sea Dragon; accommodating larger planes.
- Expansion of Freshwater Hotel provided increase in new/good quality accommodation.
- See need for more room inside the Terminal.
- Benefit if VIC person at Airport when passengers arrive
- Shire last year supported VIC providing $60k compared to $30k in previous year. Otherwise operators fund services via commissions etc. Good sales due to communication strategy.
- Current Manager commenced in role April 2015 – close to shutting the doors' – turnaround linked to working with people and emphasising importance of VICs.
- In Australia there is a recent trend to 'holiday at home' that can benefit the Kimberley's.
- Anticipate the proposed direct Melbourne flights can be viable

2.8 Linkages to Corporate Strategy

2.8.1 Strategic Community Plan

The Shire has developed a Strategic Community Plan (SCP) covering the years 2012 – 2022. The SCP covers three major goals areas/ themes as follows;

Figure 6: Three Goals/ Theme Areas of the Strategic Community Plan 2012 - 2022

Ongoing, reliable infrastructure assets, provided to an agreed level of service are going to be key to underpinning services delivery in line with the objectives of the SCP. This AMP will be a key informing document to assist with future community engagement when updating future versions of the SCP.

2.8.2 Corporate Business Plan

The Shire has developed a Corporate Business Plan (CBP) 2017 / 18 – 2021 / 22 to support delivery of the SCP objectives. The CBP details the following in relation to the EKRA.

Strategy 1.4.3: Maintain Council's long term financial viability

Action 1.4.3.1 Review Long Term Financial Plan

Task	17/18	18/19	19/20	20/21
169 EKRA – Develop and maintain a Long Term Financial Plan for the Airport. Undertake competitive neutrality review of the Airport and fee model structure for the airport.	● $20k	●	●	●
172 Develop and implement Asset Management Plan and enhance condition assessments of all assets.	●	●	●	●
93 Identify opportunities for new income streams that are financially sound and equitable to be less reliant on rates and grants as the primary basis for revenue by leveraging alternative income streams to ensure Shire services are financially sustainable.	●	●	●	●

Strategy 2.2.8: Support and advocate for further development of the East Kimberley regional airport to attract more aircraft and greater competition

Action 2.2.8.1 Implement the East Kimberley Regional Airport Master Plan

Task	17/18	18/19	19/20	20/21
237 EKRA – Extend the length for the runway to accommodate larger aircraft. Based in the feasibility study and business case, the Shire is working to extend the length for the EKRA runway to accommodate larger aircraft to provide community with cheaper flights. Lobbying/obtain grant funding for EKRA runway extension Detailed design, tendering and construction of runway extension.	● $80k	●	● $9.5m	● $9.5m
242 EKRA – Improve Airport Precinct Signage. Provision of consistent directional precinct signage. Responds to tenant representations and provision of community information. The airport will streamline signage and improve wayfinding to help passengers locate key areas around the airport.	● $10k			
244 EKRA – Provide CCTV and upgrade Phone Systems at airport terminal. Provide Closed Circuit Television (CCTV) system at EKRA as part of ongoing aviation security initiative and upgrade Phone Systems	● $37k	● $50k		
245 EKRA – Upgrade Main Apron Lighting for RPT Bay 3. There is a need to bring RPT (Main) Apron Flood Lighting to CASA standards – Bay 3.	● $100k			
246 EKRA – Replacement of Airport Maintenance Depot. The Maintenance Depot is in poor condition reflecting its age and construction. The site is identified for additional future parking. Propose to undertake detailed investigations/approvals in 2020/21 and construction in 2021/22.				● $10k
293 EKRA – Upgrade and increase airport carparking capacity. EKRA is committed to continuing to make improvements to ensure customers enjoy visiting the EKRA. The Car Park was identified as an area for improvement during a Councillor inspection in March 2016. Upgrading and increasing the capacity of the Car Park will improve customer access to the terminal during peak season (April – September).	● $215k	● $250k	●	●
299 EKRA – Airport Perimeter Fence Upgrade This comprises final four stages of constructing improved air-side fencing. Reference in Security Plan. Maintenance expectation not significantly increased.	● $50k	● $50k	● $50k	● $50k

Task	17/18	18/19	19/20	20/21
460 Investigation and development of the airport enterprise precinct. Provide business development opportunities close to Victoria Highway and the Airport for business growth within the Airport precinct.	●	●	●	●
554 EKRA – Taxiway F & G and GA Aprons E & W Upgrades. Design and Upgrades to Taxiways F & G together with General Aviation Aprons East and West involving geotechnical investigations and air traffic needs followed by tendering and construction works. Taxiways and general aviation aprons that meet operational needs.	● $50k			● $80k

Strategy 2.3.1: Manage and maintain assets in a strategic and cost effective manner

Action 2.3.1.5 Implement Airport Asset Management Plan

Task	17/18	18/19	19/20	20/21
294 EKRA – Air Conditioning Plant Replacement The current air conditioning plant to the terminal is performing poorly and is at the end of its operational life.	● $240k			
319 Plant Replacement – Airport Passenger Plant. Based on the 10 yr Plant Replacement Program for passenger plant at the airport, establish a modern and safe fleet of plant.		● $37k	● $56k	● $39k
320 Plant Replacement – Airport Grounds-care Plant Medium Based on the 10 yr Plant Replacement Program for grounds-care plant at the airport, establish a modern and safe fleet of plant.		● $28k		● $32k
321 Plant Replacement – Airport Grounds-care Plant Attachments. Establish a modern and safe fleet of plant.		● $236k	● $157k	
552 EKRA – Replace Explosive Trace Detection (ETD) Equipment and walk through. Replace Explosive Trace Detection (ETD) Equipment and walk through at EKRA to comply with statutory requirement from Federal Office of Transport Security	● $165k			
553 EKRA – Develop Safety and Emergency Capabilities. Develop the EKRA Safety and Emergency Management Capabilities by ensuring Airport staff are trained in Airport Emergency Response by undertaking a full scale Airport	● $22k		● $20k	

Task	17/18	18/19	19/20	20/21
Emergency Exercises at the EKRA every two years. Review the EKRA Safety Management System (SMS)				

Table 3: Extracts from the Corporate Business Plan 2016 / 17 - 2019 / 20

2.8.3 Asset Management Policy

The Shire adopted an updated policy relating to Asset Management on 18 July 2017. A copy of the policy is attached at Appendix A. on page 60.

2.8.4 Asset Management Improvement Strategy

The Shire has developed an Asset Management Improvement Strategy (AMIS) with current actions providing for a suite of plans across the asset groups for end of 2016/17 completed and plans have been prepared across the asset groups.

3.0 Level of Service

The Shire is yet to document level of service in relation to the EKRA. Due to significant recent capital investment, assets associated with the EKRA are of a very high level of service. Through the airport master planning process, the Shire has determined the future level of service that will require upgrade of airport infrastructure to meet capacity demands.

Defining and adopting Levels of Service allows the Shire to engage with the community and reach agreement on the standard of service to be provided for all assets then measure performance against the agreed outcomes. During financial planning/ budgeting the Shire can analyse the effect of changes to various Levels of Service (increasing or decreasing service) and modify the mix of service provision to best meet community needs within available resources.

The Shire can also use information relating to the cost of levels of service when planning for and seeking funding. Below is an example of a Level of Service framework for buildings.

	All Buildings	Municipal Buildings
Strategic Level of Service	To provide a range of community buildings that are fit for purpose, appropriately designed, well maintained, safe and functional	To provide a range of municipal buildings that are fit for purpose, appropriately designed, well maintained, safe and functional.
Service Standards	**Customer**	**Technical**
Design		
Building Design	Buildings will be designed to: - Meet appropriate standards for safety and environmental efficiency - Be fit for purpose - Ensure the 'whole of life' cost is considered for all elements of the asset when determining design	Buildings are designed and constructed in accordance with the Building Code of Australia, Building Act 2011 and associated Regulations.
Planned Maintenance	Shire will implement a scheduled maintenance program for all building assets	Maintenance programs will be implemented based upon condition assessment, annual budgets and long term financial plan.
Reactive Maintenance	Emergencies will be responded to immediately (this may include relocation of staff or services and the area made safe until repairs can be effected). - All non-emergency related requests for maintenance will be assessed based on the Shires risk assessment process within 4 hrs of receiving the request - repairs will be effected as soon as possible on a prioritised basis subject to availability of resources	Maintenance (reactive) will be commissioned based upon customer requests and technical advice. Emergency maintenance will be addressed immediately, whilst non emergency maintenance will be addressed in accordance with scheduled maintenance, annual budgets and long term financial plans.

Table 4: Example/ Sample Levels of Service for Buildings Assets

3.1 Current Levels of Service

The Shire currently has 'intervention levels' documented for all asset classes. This refers to the 'Asset condition' (on a scale of 0 - 10 where 0 is as new condition) at which works are planned to be undertaken to upgrade refurbish or replace existing facilities with facilities of equivalent capacity or performance capacity (Renewal). The intervention levels for each asset class are documented in Section 6.9 on page 41 for example, the column entitled RICL detail the point at which the Shire proposes to intervene to replace an asset.

The Shire currently has informal Levels of Service in place for some assets, these are generally retained within corporate knowledge (the understanding of individual or groups of officers and/ or Council) or documented separately within various publications.

As a guiding principle in relation to current levels of service, the Shire takes guidance from the following;

- CASA requirements for safety standards for air-side operations e.g. line-marking; lighting etc.
- Periodic inspections required as part of Airport auditing of runways, lighting systems and the like.
- Maintenance contracts with response times for electrical and plumbing works. Three levels of response apply based on character.
- Airport Officers undertake 'serviceability inspections' airside at least three times daily of runway, taxiway, aprons and navigational aids. Night-time lighting inspection are carried out on a weekly basis.
- Key equipment e.g. scanning machines are checked before each RPT check-in.
- Airport services officers check Terminal operations on a daily basis and respond immediately (outside screening periods) for matters of cleanliness and identified wear and tear items.

3.2 Future Levels of Service

It is proposed that future versions of this asset management plan will include Council adopted levels of service within a defined level of service framework specifically developed for the EKRA.

4.0 Future Demand

4.1 Population

The Kimberley is a remote region with a low and dispersed population. The total resident population in 2015 was 38,801 (ABS, 2017a). Meanwhile, the total population of SWEK in 2015 was 8,663, or 22.3% of the total Kimberley population (ABS, 2017b). Aboriginal and Torres Strait Islander Peoples accounted for 34.8% of the EKRA population (ABS, 2017b). Similar to the Kimberley region, SWEK was also recorded as being sparsely populated in the 2011 Census.

On the Census night in 2011, the population of SWEK was 11,914, which was 53% greater than the 2011 residential population (SWEK, 2015). This indicates that the actual population number of SWEK is significantly impacted by fly-in fly-out (FIFO) workers, seasonal farm workers and tourists (SWEK, 2015). These numbers are significant for airport activities.

In 2015, the Western Australian Planning Commission forecasted the residential population of SWEK to grow at an annual average growth rate of -0.20% to 3.92% by 2016; 0.21% to 2.96% by 2021; and 0.36 to 2.53% by 2026. These rates reflect a residential population between 8,650 and 11,920 in 2026. Note that the lower end of each of these ranges indicates that there is a 90% chance that this figure will be exceeded while the upper end of each range indicates that there is only a 10% chance that this population will be exceeded.[6]

The population of the Shire has steadily increased over the past 16 years at an annual average rate of 1.33% per annum.

Whilst there have been large short-term fluctuations in population (both positive and negative) the long-term trend is slightly above the long-term trend for Australia in total which was in the order of 1.32% per annum over the period 1975 to 2010 (see Figure 7 below).

Year	Population	% Increase
2001	7,211	
2002	7,280	0.96%
2003	7,344	0.88%
2004	7,290	-0.74%
2005	7,257	-0.45%
2006	7,159	-1.35%
2007	7,310	2.11%
2008	7,682	5.09%
2009	7,861	2.33%
2010	7,971	1.40%
2011	8,195	2.81%
2012	8,419	2.73%
2013	8,639	2.61%
2014	8,657	0.21%
2015	8,660	0.03%

Table 5: Population increase within the Shire since 2001 (Source ABS)

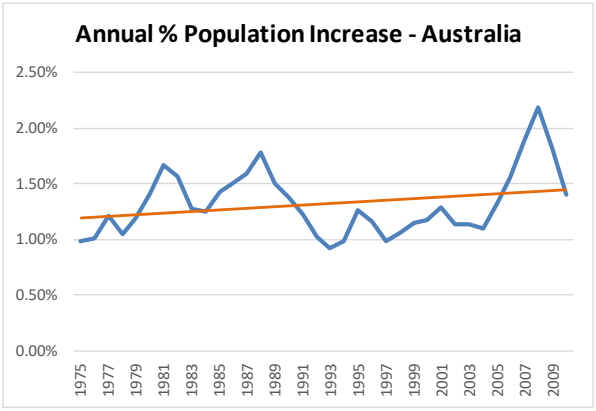


Figure 7: Annual Average Population Growth of Australia over the period 1995 - 2010 of 1.32% (Source ABS)

[6] Extracted from EKRA Master Plan 2017

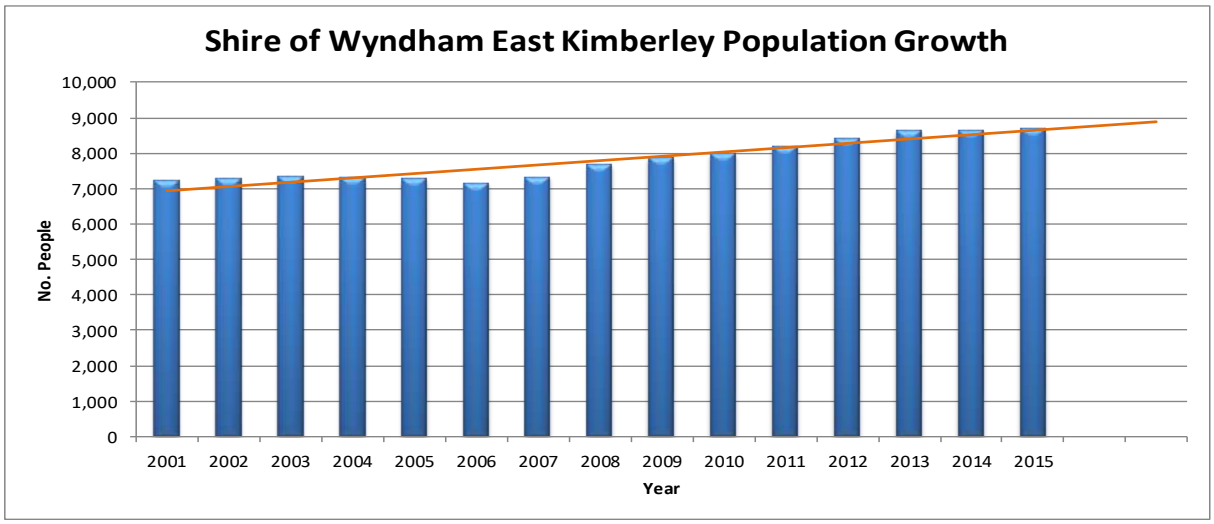


Figure 8: Total Population within the Shire 2001 - 2015 (source ABS)

Unless there is significant State and / or Federal Government policy change in the near future and which has significant economic stimulus effect, it is more than likely that the Shire's population will continue to grow at a natural annual average rate of around 1.5%. This would mean a population of approximately 12,000 people by 2037 (time horizon of this AMP), an increase of over 3,000 people (39% increase) based on the 2015 population.

4.2 Employment

The 2011 census determined that 3,743 people were employed in SWEK with the highest employing industry being health care and social assistance (11.3%). Meanwhile, mining employed 9.4% of the working population (ABS, 2017b).[7]

4.3 Economy

The resource, tourism and agriculture industries make significant contributions to the economy of the region. In 2011-12, the Gross Regional Product (GRP) of the Kimberley region was $3.085 billion (Kimberley Development Commission, 2013). The mining industry made the largest contribution to the GRP, with that in 2011-12 being 35.7% of the total GRP (Kimberley Development Commission, 2013).[8]

4.4 Demand for Airport Services

Whist growth in population and changing demographics are indicators in respect to the demand for particular asset types, the most significant demand generator for airport services, is the type of aircraft that are able to use the available runways and the frequency of that use. EKRA has only one runway, therefore the demand to use that runway is the main driver in relation to airport services at EKRA.

The Shire has prepared a new airport master plan in parallel with this asset management plan. The plan is known as EKRA Master Plan 2017 (July 2017). The EKRA Master Plan 2017 details the demand analysis and modelling relating to the EKRA. Readers of this AMP should refer to the EKRA Master Plan 2017 for specific details relating to the growth in demand for airport services.

[7] Extracted from the EKRA Master Plan 2017
[8] Extracted from the EKRA Master Plan 2017, for more detail, please refer to Section 2.1.2.3 of the EKRA Master Plan 2017

4.4.1 Key Issues identified by the EKRA Master Plan 2017

The Executive Summary of the EKRA Master Plan 2017 states the following:

The objectives of the EKRA Master Plan 2017 are as follows:

- Provide strategic directions over a minimum 20-year development framework while recognising that it is a living document;
- Identify scope for diversification through new/expanded opportunity areas that could include the ability to accept larger aircraft, support the economic growth of Kununurra and the tourist, agriculture, resources sectors and defence capabilities; and
- Guide general community, local businesses and development industry through certainty, reduced potential conflicts and meeting statutory requirements

East Kimberley Regional Airport (IATA: KNX; ICAO: YPKU) occupies a site of 275 hectares and currently accommodates Code 3C aircraft operations. EKRA has 46 weekly scheduled regular passenger traffic (RPT) services and is serviced by numerous operators, including Virgin Australia, Airnorth, charter airlines and the Royal Flying Doctor Service (RFDS).

Passenger numbers peaked in 2012-13 to approximately 92,000, but has since declined due to the decrease in construction activities of the resources sector and Ord Irrigation Scheme. The number recorded during 2015-16 stood at 74,300 passengers.

In order for the EKRA Master Plan to satisfy the aforementioned objectives, a review of the 2013 Master Plan was first conducted to identify key areas requiring updates. The major EKRA stakeholders were then consulted to determine their key issues and concerns. Next, using a simple forecasting methodology, four growth scenarios for the airport were produced.

Critical airport planning parameters were then considered in relation to the Manual of Standards (MOS) Part 139 – Aerodromes published by the Civil Aviation Safety Authority (CASA), which prescribes the requirements for aerodromes as per Australian legislation. Finally, a Land Use Plan, Facilities Development Plan and an Implementation Plan were prepared.

The growth scenarios forecasted the passenger number in 2036-37 to range between 92,146 passengers (low-growth 1) and 215,327 passengers (high growth). The high-growth scenario assumed the operation of two Boeing 737-800/Airbus 320-200 aircraft commencing operations, each at two different points in time during 2020-2030. That is, there will be two return flights a week on Code 4C aircraft by 2030. This scenario, whilst optimistic, is a possible scenario.

This scenario was used for planning key airport developments that should occur in the short, medium and long term. Reasons for adopting this scenario for planning include the location of the airport relative to other ports, the east coast and Perth; and the characteristics of the region – abundance of natural resources, agriculture and tourist attractions.

The B737-800 was selected as the design aircraft. This consequently requires upgrading airport infrastructure from Code 3C to Code 4C.

The Master Plan has identified the following main aeronautical and non-aeronautical developments to be undertaken during the 20-year planning horizon:

- Expand the existing 1,829 metres x 30 metres runway, which is in a 12/30 orientation, to 2,430 metres (as an immediate action) x 45 metres (in the longer term);

- Increase the size of the passenger terminal to accommodate multiple Code 4C aircraft during the high-growth scenario;
- Develop a solar power plant to feed into the electricity grid of the passenger terminal;
- Acquire land, largely north of the runway, for purposes of airport safeguarding;
- Facilitate additional commercial development of airport land to encourage synergies, provide additional revenue resources and support economic development; and
- Investigate adjoining land acquisition as required.

4.4.2 Commercial Viability of the EKRA

Like many assets, the EKRA does not fully support itself, i.e. the income generated by the service it provides does not fully fund the asset, therefore a key element of the 2017 Master Plan is consideration of options to generate income to support the long – term sustainability of the airport, i.e. such things as the proposed Solar Farm, land acquisition to support a new aviation precinct, two commercial precincts and land acquisitions to augment the available commercial area.

The EKRA is an expensive piece of infrastructure. The Current Estimated Replacement Cost of the entire asset (including land cost) is of the order of $74.7m of which $52.5m is in the form of depreciable assets which require ongoing regular replacement. This results in an estimated annual renewal demand of ~$1.88m /annum[9] and an estimated annual maintenance demand of ~$1.05m/annum[10].

Annual Operating Expenditure (excluding depreciation) is in the order of $3.0m[11]. This provides an annualised whole of life cost (excluding depreciation) of the following;

Operating Expenditure	$3,000,000
Annual Renewal Demand	$1,880,000
Annual Maintenance Demand (@1%)	$525,000
Total WOL	**$5,405,000**
Annual Operating Income	$3,900,000
Surplus / (Deficit)	($1,505,000)

Annual operating income for the EKRA is ~ $3.9m / annum[12]. which results in an annual deficit in the order of $1.51m.

What is not included in the above figures is that significant amount of capital funds the Shire has managed to attract in recent years which helps to fund annual renewal demand in addition to capital expansion. The Shire proposes to continue targeting applicable capital grants into the future, to help develop the EKRA to a point of self-sustainability.

[9] Estimated from the Asset Renewal Demand model detailed a Section 7.0

[10] Based on 1% of the estimated renewal value of depreciable assets. Note that the boundary between what is classed as Renewal and what is classed as Maintenance is very grey and something that each organisation needs to clearly define. For example, is a door is hanging off its hinges and can be fixed by recrewing the door to its hinges, that could be classed as maintenance. If the door is missing or damaged beyond simple repair, that could be classed as Renewal. However, depending on capitalisation thresholds, it may not be classified as Capital Renewal and therefore the associated expenditure may remain as maintenance expenditure item within an organisation's Operating Budget.

[11] See Appendix E for detailed calculation of the EKRA Operating Budget.

[12] See Appendix E for detailed calculation of the EKRA Operating Budget.

4.5 Demand Management

Through the master planning process, the Shire has developed a range of infrastructure initiatives proposed to be implemented at different timelines in order to cope with demand for aviation services. Readers should refer to the EKRA Master Plan 2017 for more detail behind why each initiative is proposed. A summary, taken from the Master Plan, of the proposed initiatives is presented below and this forms the basis of the future renewal demand modelling contained within this asset management plan.

Short term (0 – 5 years or until 2021/22)			**New Component included within AMP**
Airside Development	**Trigger point**	**CAPEX**	
Extend the runway by 601 metres and complete all associated works (e.g., taxiway upgrades, runway lighting) and upgrade current Taxiways A, B and C as per the GHD prefeasibility study.	Immediate	$21 million	13,486,137
Develop private hangars within the Aviation Precinct and associated taxiways.	Market demand sounding Feasibility analysis undertaken.	To be determined by a prefeasibility study.	0
Landside Development	**Trigger point**	**CAPEX**	
Develop a solar farm to feed into the electricity grid of the passenger terminal.	Immediate.	To be determined by a prefeasibility study.	Cost Neutral
Lay pipework needed to increase the water supply to the passenger terminal and implement measures to eliminate water constraint issues.	Immediate.	To be determined by a prefeasibility study. Investment by stakeholders in addition to SWEK expected.	750,000
Undertake land acquisitions north of the runway.	Immediate.	Included in the $21 million estimate as part of the runway extension project.	TBA
Develop a roadhouse.	Market demand sounding and land parcel consolidated.	To be determined by a prefeasibility study.	Cost Neutral
Develop an express freight facility.	Sound market demand identified and a feasibility analysis undertaken.	To be determined by a prefeasibility study.	Cost Neutral

Medium term (6 – 10 years or until 2026/27)			
Airside Development	**Trigger point**	**CAPEX**	
Expand the west GA apron.	East GA apron reaches full capacity and the west GA apron reaches half its capacity	To be determined by a prefeasibility study.	4,062,500
Terminal/Landside Development	**Trigger point**	**CAPEX**	
Expand the terminal (estimated internal area of 2,500 square metres).	Airlines make serious commitments to operate B737-800 aircraft into EKRA.	To be determined by a prefeasibility study/consultation with terminal planners.	4,023,000
Acquire land parcel south east of the Runway 30 threshold.	Airlines make serious commitments to operate B737-800 aircraft into EKRA.	To be determined by market prices.	TBA
Expand car parking facilities.	Existing car parking facilities reach 80% of their capacity during the terminal busy hour and supplementary opportunities such as use of on-street or temporary parking options have been exhausted. Further, demand management approaches confirm requirement for expansion.	To be determined by a prefeasibility study.	480,000
Acquire the land parcel west of the airport site.	Sound market demand for facilities identified. Feasibility analysis undertaken.	To be determined by market prices.	TBA
Develop a reticulated sewerage system.	Provision of funding agreement across land owners/developers.	To be determined by a prefeasibility study.	150,000
Develop a sewerage system for overnight RPT aircraft and charter aircraft.	There is enough demand to justify the cost of this development.	To be determined by a prefeasibility study.	50,000

Long term (10+ years or until 2037/38)			
Airside Development	**Trigger point**	**CAPEX**	
Widen runway to 45 metres and complete all associated works.	Regulatory provisions and/or airline operators require runway widening.	$8.8 million + (estimate by GHD)	7,144,200
Partner with operators on development of new fuel facilities in the Aviation Precinct and closer to the west GA apron.	Crossovers of GA aircraft over the RPT apron to the fuelling facilities adjacent to the east GA apron reaches a point that is deemed too high.	Cost may be able to be transferred to operator (e.g., BP or Shell).	0
Extend taxiway F to the west.	RPT traffic increases to a point such that extending Taxiway F provides increased convenience than using a runway turn pad.	To be determined by a prefeasibility study.	2,049,024
Extend taxiway F to the east.	Traffic increases to a point such that the crossover of GA aircraft over the RPT apron is not desired.	To be determined by a prefeasibility study.	1,315,326
Terminal/Landside Development	**Trigger point**	**CAPEX**	
Further expand the passenger terminal and provide any further parking required.	Capacity of the terminal during airport busy hour reaches 80% and demand management approaches confirm requirement for expansion.	To be determined by a prefeasibility study.	TBA
Build a dedicated freight facility within the larger Freight Precinct.	Freight capabilities of the express freight facility reach maximum capacity and the project is financially viable.	To be determined by a prefeasibility study.	TBA
		Total (Net New Assets)	**33,510,187**

1314

Table 6: Recommended Capital Investment as detailed in the EKRA Master Plan 2017 – This information is from the Airport Master Plan with and additional fourth column added for the AMP.

[13] Note that the New Component Column in Table 6 only includes the estimate value of new assets, for example, the Master Plan details that ~ $21m of Capital Investment is needed to extend the runway and upgrade lighting, taxiways and aprons. A significant portion of the $21m includes replacements of existing assets such as aprons and taxiways due to the need for pavement strengthening, hence this has been classed as asset renewal and does not generate additional demand for increased asset renewal expenditure.

[14] Many of the costs in this table are indicative and will need to be refined further as feasibilities are completed and / or more detailed design.

5.0 Risk Management

The Shire recognises the importance of risk management. The Shire is yet to formally address management of risk at an organisation wide level, particularly in the following areas:

- A comprehensive Governance Framework;
- Limits on the approval of operational and capital expenditures;
- Reliable internal controls built into financial systems and processes;
- A robust and thorough policy framework;
- Comprehensive insurance cover supported by appropriate insurance practices;
- Responsible guidelines and practices relating to occupational health and safety, equal opportunity employment and sexual harassment;
- Independent audit and access to external legal advice; and
- Fundamental technology and data management controls.

It is recommended that risk management initiatives be developed and introduced. Whilst it must be recognised that it is not possible to eliminate all risk from the Shire's operations, the Shire should identify and prioritise the major risks. It can then determine an acceptable level of risk and then manage that risk accordingly. Such an approach is consistent with the thrust of the Risk Management Standard AS/NZS ISO 31000:2009.

5.1 Current Risk Management Practices

The Shire currently addresses and manages Strategic risks by maintaining a register of risks. This register details each risk, the responsible officer, risk category, review date, issue type, risk treatment, inherent rating revised rating, future rating and effectiveness of controls.

The register is hosted on a software platform provided by 'Cams Management Solutions'. During the preparation of this asset management plan a 'Risk Executive Report Summary', 'Strategic Risk Report Summary' and 'Operational Risk Report Summary' were viewed[15].

The information contained in the Shires risk register does not fully capture all 'Strategic' and 'Operational' risks applicable to airport assets.

During data capture for preparation of this Asset Management Plan, Airport officers report that operational risks are addressed through current operational plans and practices. Information relating to capturing and addressing a full range of strategic airport risks was not available. Examples of some strategic risks include:

- Uncertainty relating to sourcing of capital funding for future asset renewal resulting in the potential that the condition of some critical assets falls outside of acceptable intervention level. This would result in the ability to deliver core airport services to legislative and operational standards being compromised.
- Uncertainty relating to sourcing of capital funding for future expansion could result in the Shire being unable to deliver on the outcomes detailed in the 'Airport Master Plan'.

As part of progressing from 'Core' to 'Advanced' Asset Management maturity the Shire will need to ensure that all risks are addressed through standardised a standardised risk management framework and processes.

[15] This occurred in preparation of Version 1 of this Plan in 2014

Traditionally, local governments have viewed risk management from a very narrow perspective with the emphasis on 'incident management' (fires, building evacuations, etc), personnel issues (occupational health and safety, injury management, etc) or insurances to mitigate the impact of law suits. Other matters such as 'business risks', 'regulatory risk' and 'environmental risk' have been accorded a lesser priority despite there being a far greater likelihood of the occurrence of such events than say a fire or bomb threat in a facility.

Timely identification and proactive management of business risk is essential to the success of an organisation and is no less relevant in local government than in any other sector. The key to effective risk management lies in having in place mechanisms to allow for the identification and responsible management of those risks. The risk management process applied should be similar to the Risk Management Standard - a more detailed discussion of the steps in the process is contained in the standard.

Some of the current key risks identified are as follows;

- Reliance on two current RPT carriers (e.g. if Airnorth withdrew Darwin-Kununurra-Broome service who would takeover).
- As above most capital investments rely of financial support from other levels of government that is expected to become scarcer
- Available capital funding focuses more on new investment than replacement.
- EKRA has high level of fixed assets (runways; taxiways; aprons; navigational aids) to RPT services (average 3 arrivals/departures per day)
- Demand is strongly influenced by externally driven economic demands e.g. resources sector; tourism and agriculture (Ord River Scheme and more recently prawn farming proposal)
- Increasing regulatory demands for both general security and technologies e.g. screening equipment and CCTV.

6.0 Lifecycle Management

A goal of Asset Management is to predict the whole- of -life costs of assets over a long-term period (20 years), so that renewal demand can be incorporated into Councils long term financial planning.

Costs are incurred from the inception to disposal of an asset. These costs include construction, operations, maintenance, renewal, capital upgrades and finally disposal.

The Shire has an excellent understanding of the composition, location and extent of its infrastructure assets (Asset Inventory). A full asset condition survey was carried out in in April 2014 and updated in February 2017 in addition to a Fair Value assessment of assets as at July 1 2013 and which is currently being updated to July 1 2017.

6.1 Work Category Definitions

Maintenance - Maintenance activities are those routine works which keep assets operating to the required service levels and ensure that the asset reaches its intended life. If timely maintenance is not done, the asset will not reach its intended life. They fall into two categories:

- Planned Maintenance (proactive) - inspection and maintenance works planned to prevent asset failure; and
- Unplanned Maintenance (reactive) - reactive action to correct asset malfunctions and failures on an as required basis (i.e. emergency repairs).

Operations - Operational activities are the day to day activities that largely centre on safety and amenity but have no effect on condition. Typical operational activities include (but are not limited to):

- Cleaning.
- Utilities.
- Insurance
- Pest control.
- Security services.

Renewals - Renewal work is the replacement of an asset or a significant component on a like for like basis these are activities such as:

- Roof Replacements.
- Refit of kitchens.
- Road Reseals
- Gravel Sheeting

Upgrade – Is work associated with augmenting the asset. For example, building an addition such as a kitchen or extra room that was not there originally.

New Works - Projects (including land purchases) for the extension or upgrading of assets required to cater for growth or additional levels of service. New works create an asset that did not exist or extend an asset beyond its original size or capacity.

Asset Disposal - Costs associated with the removal, sale or demolition of decommissioned or surplus or redundant assets.

6.2 Operation and Maintenance Strategy

The Shire has not yet prepared an Operation and Maintenance Strategy specifically for the airport. An Operation and Maintenance Strategy links closely to a Level of Service Framework and details activities and costs associated with achieving services levels. For example;

- How often are rest rooms inspected and cleaned in the Terminal which is accessed by the public vs an Admin building accessed by Staff?
- How long is a pothole in a public car park allowed to exist before it is fixed vs a pothole in a non-public car park vs a taxiway or runway?
- What are the costs associated with inspection and response of the above?

This section will be added in future revisions of the AMP once an Operation and Maintenance Strategy has been prepared.

6.3 Renewal and Replacement Strategy

The Shire continually monitors the need to renew assets. There has been significant recent capital investment in expansion of the airport including upgrading the Airport Terminal and resurfacing the runway. Much of this investment has included renewal of assets.

Future Capital improvement identified in the EKRA Master Plan 2017, also includes significant amount of asset renewal which has been included in this asset management plan where funding has been identified via the Corporate Business Pan. Refer to Appendix B on page 66. Renewal investment identified in the CBP is detailed in Table 29.

6.4 New, Upgrade and Disposal Strategy (Capital Investment)

A long term Capital Investment Strategy is yet to be developed. New capital investment going forward has been proposed by the EKRA Master Plan 2017 and is detailed in Table 6. Also refer to Appendix D for a detailed list of proposed new assets (shown in Red in each table).

6.5 Physical Parameters

The EKRA has an estimated renewal cost of **$74.7m** of assets with **$52.4m** being depreciable assets. This information is based on results of an inspection conducted in April 2014 and updated in February 2017, information compiled from existing databases, asset registers and discussion with staff. During the inspection all assets which could be physically viewed were inspected. Examples of assets which could not be viewed include buried cables and sewerage system components. In these instances, inferences were drawn in relation to their condition and default conditions profiles were adopted based on discussions with staff.

Note that assets are listed by Asset Class in order to align with the Shire's Financial Reporting.

6.5.1 Land

Asset Set No.	Asset Group	Land	Depreciable Y/N	Modelled Y/N	No.	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
	Land	Freehold	No	No	7		2,615,774	4,557,000	A
		Total Land			**7**	**0**	**2,615,774**	**4,557,000**	

Table 7: Summary of Land Assets (See 10.1 for a detailed list)

6.5.2 Buildings

Asset Set No.	Asset Group	Buildings	Depreciable Y/N	Modelled Y/N	Number	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
1	Regional Buildings	R - Long Life Structures	Yes	Yes	6			6,879,130	A
2	Regional Buildings	R - Short Life Structures	Yes	Yes	8			812,716	A
3	Regional Buildings	R - Roof Cladding	Yes	Yes	14			591,680	A
4	Regional Buildings	R - Mechanical Services	Yes	Yes	7			554,311	A
5	Regional Buildings	R - Fit Out	Yes	Yes	8			2,776,921	A
		Total Buildings			**14**			**11,614,759**	

Table 8: Summary of Buildings Assets (See 10.2 for a detailed list)

6.5.3 Furniture & Equipment

Asset Set No.	Asset Group	Furniture & Equipment Type	Depreciable Y/N	Modelled Y/N	No.	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
6	Furniture & Equipment	Furniture	Yes	Yes	33			288,033	B
7	Furniture & Equipment	IT Equipment	Yes	Yes	4			28,391	B
		Total Furniture & Equipment Type			**37**		**0**	**316,424**	

Table 9: Summary of Furniture & Equipment (See 10.3 for a detailed list)

6.5.4 Plant and Equipment

Asset Set No.	Asset Group	Plant & Equipment Type	Depreciable Y/N	Modelled Y/N	No.	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
8	Plant & Equipment	Mobile Plant	Yes	Yes	13			510,870	B
9	Plant & Equipment	Fixed Plant	Yes	Yes	10			523,054	B
10	Plant & Equipment	Security Screening Equipment	Yes	Yes	6			766,000	B
11	Plant & Equipment	Navigational Aids	Yes	Yes	7			3,638,900	B
12	Plant & Equipment	Baggage Handling Equipment	Yes	Yes	2			621,000	B
13	Plant & Equipment	Miscellaneous Equipment	Yes	Yes	19			238,140	B
		Total Plant & Equipment Type			**57**	**0**	**0**	**6,297,964**	

Table 10: Summary of Plant and Equipment Assets (See 10.4 for a detailed list)[16]

6.5.5 Infrastructure – Roads (Kerb)

Asset Set No.	Asset Group	Infrastructure - Roads (Kerb)	Depreciable Y/N	Modelled Y/N	No.	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
14	Kerbing	Sealed Road Kerb	Yes	Yes		3,735		448,165	A
		Total Infrastructure - Roads (Kerb)			**0**	**3,735**	**0**	**448,165**	

Table 11: Summary of Infrastructure - Roads (Kerb) (See 10.5 for a detailed list)

[16] Note that Navigational Aids only include Shire owned and controlled Navigational Aids located at the EKRA

6.5.6 Infrastructure – Drainage

Asset Set No.	Asset Group	Infrastructure - Drainage	Depreciable Y/N	Modelled Y/N	No.	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
15	Drainage	Culverts	Yes	Yes	6	119		101,150	B
16	Drainage	Headwalls	Yes	Yes	10			15,000	B
17	Drainage	Pits	Yes	Yes	24			84,000	B
18	Drainage	Pipes	Yes	Yes		1,010		858,500	B
19	Drainage	Open Unlined Drains	Yes	Yes		0		0	B
		Total Infrastructure - Drainage			**40**	**1,129**	**0**	**1,058,650**	

Table 12: Summary of Infrastructure – Drainage (See 10.6 for a detailed list)

6.5.7 Infrastructure – Pathways

Asset Set No.	Asset Group	Infrastructure - Pathways	Depreciable Y/N	Modelled Y/N	No.	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
20	Pathways	Brick Paved	Yes	Yes			643	89,971	A
21	Pathways	Concrete	Yes	Yes			1,766	211,885	A
		Total Infrastructure - Pathways			**0**	**0**	**2,408**	**301,856**	

Table 13: Summary of Infrastructure – Pathways (See 10.7 for a detailed list)

6.5.8 Infrastructure - Airports

Asset Set No.	Asset Group	Infrastructure - Airports	Depreciable Y/N	Modelled Y/N	No.	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
	Airports	Airside Aerodrome Formation	No	No			876,999	17,539,980	A
22	Airports	Runway Pavement	Yes	Yes			92,221	3,873,282	A
23	Airports	Runway Seal	Yes	Yes			68,129	9,878,705	A
24	Airports	Taxiway Pavement	Yes	Yes			66,682	3,400,782	A
25	Airports	Taxiway Seal	Yes	Yes			56,170	7,302,100	A
26	Airports	RPT Apron Pavement	Yes	Yes			10,859	553,809	A
27	Airports	RPT Apron Seal	Yes	Yes			10,859	1,411,670	A
28	Airports	GA Apron Pavement	Yes	Yes			45,823	1,603,805	A
29	Airports	GA Apron Seal	Yes	Yes			45,823	3,436,725	A
	Airports - Roads & Car Parks	Carpark Formation	No	No			6,912	103,680	A
30	Airports - Roads & Car Parks	Carpark Pavement	Yes	Yes			6,912	207,360	A
31	Airports - Roads & Car Parks	Carpark Seal	Yes	Yes			6,912	103,680	A
	Airports - Roads & Car Parks	Road Formation	No	No			8,853	88,530	A
32	Airports - Roads & Car Parks	Road Pavement	Yes	Yes			8,852	177,040	A
33	Airports - Roads & Car Parks	Road Seal	Yes	Yes			8,852	132,780	A
		Total Infrastructure - Airports			**0**	**0**	**1,320,858**	**49,813,928**	

Table 14: Summary of Infrastructure – Airports (See 10.8 for a detailed list)

6.5.9 Infrastructure – Water & Sewer

Asset Set No.	Asset Group	Infrastructure - Water & Sewer	Depreciable Y/N	Modelled Y/N	No.	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
34	Water & Sewer	Waste Water System	Yes	Yes	1			150,000	B
35	Water & Sewer	Water Supply	Yes	Yes				0	A
		Total Infrastructure - Water & Sewer			**1**	**0**	**0**	**150,000**	

Table 15: Summary of Infrastructure – Water & Sewer (See 10.9 for a detailed List)[17]

[17] Note that Water Supply is not included in the base model however is included in the future model

6.5.10 Infrastructure - Other

Asset Set No.	Asset Group	Infrastructure - Other	Depreciable Y/N	Modelled Y/N	No.	Length (m)	Area (m^2)	Estimated Renewal Value ($)	Data Rating
36	Misc.	Fencing - Security	Yes	Yes		519		77,850	A
37	Misc.	Fencing - Stock Proof - 1.2m 100mm x 100mm mesh	Yes	Yes		4,614		69,210	A
38	Misc.	Fence Access - Stock Gates	Yes	Yes	14			21,000	A
39	Misc.	Fence Access - Electric Security Gates	Yes	Yes	1			15,000	A
		Total Infrastructure - Other			**15**	**5,133**	**0**	**183,060**	

Table 16: Summary of Infrastructure - Other (See 10.10 for a detailed List)

Asset Summary by Class	Estimated Renewal Value ($)	%
Land	4,557,000	6.1%
Investment Property	0	0.0%
Buildings	11,614,759	15.5%
Furniture & Equipment	316,424	0.4%
Plant & Equipment	6,297,964	8.4%
Infrastructure - Roads (Kerb)	448,165	0.6%
Infrastructure - Bridges	0	0.0%
Infrastructure - Drainage	1,058,650	1.4%
Infrastructure - Parks, Gardens & Reserves	0	0.0%
Infrastructure - Pathways	301,856	0.4%
Infrastructure - Airports (Depreciable)	32,081,738	42.9%
Infrastructure - Airports (Non - Depreciable)	17,732,190	23.7%
Infrastructure - Water Supply	0	0.0%
Infrastructure - Sewerage	150,000	0.2%
Infrastructure - Other	183,060	0.2%
Total Estimated Renewal Value of All Assets	**74,741,806**	**100.0%**
Total Estimated Renewal Value of Depreciable Assets	**52,452,616**	

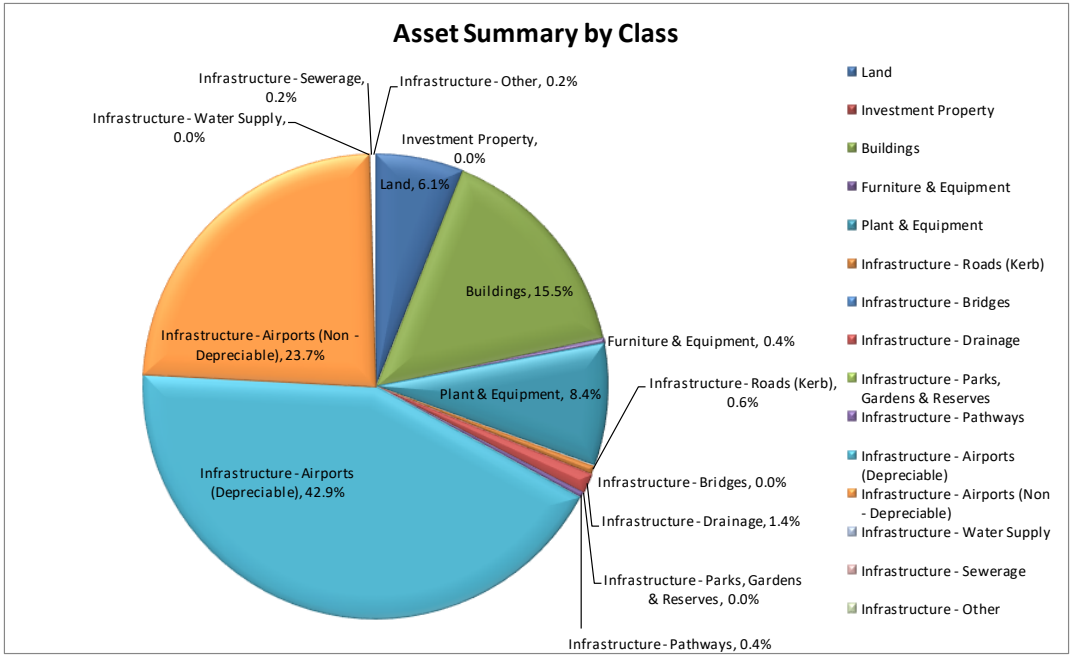


Table 17: Summary of All Asset Classes

6.6 Data Rating

Asset inventory was compiled from existing Shire asset inventory data or physical inspection. A data confidence level 'data rating' was applied for each asset class in order to provide a level of understanding in relation to the completeness of each data set.

Grade	Title	Details
A	Highly reliable	Quantity - 95 -100% complete Age - less that 12 months old Collection method - best practice and consistent within the asset group and between other asset groups Usage - can be used for accurate forecasting
B	Reliable	Quantity - 80-95% complete Age - 1 - 2 years old Collection method - consistent within the asset group but not with other asset groups Usage - must be qualified if used for forecasting
C	Unreliable	Quantity - 60-80% complete Age - 2-5 years old Collection method - adhoc Usage - must be qualified if used for forecasting and possibly require other scenarios to be modelled
D	Highly unreliable	Quantity - less than 60% complete Age - more than 5 years old Collection method - unknown Usage - should not be used for forecasting or reporting

Table 18-Data Rating Definitions

6.7 Ownership Function

The Shire, having care control and responsibility for an extensive network of assets, is responsible for a number of functions. The ownership functions include:

- Maintenance;
- Operations;
- Renewal/Refurbishment;
- Upgrade/Improvements;
- Provision of New Assets; and
- Rationalisation and Disposal of Assets.

The Shire is responsible for all of the above functions in relation to assets contained within this asset management plan.

6.8 Asset Capacity / Performance

Measuring the capacity / performance of an asset means to objectively evaluate policy and strategic objectives and outcomes against the required level of service. Performance management that is based on reliable and timely performance information provides a foundation for informed decision-making, planning, implementation and review.

Performance assessment will assist in ensuring that assets effectively support service delivery requirements and are used in a cost effective and sustainable manner.

Performance criteria and measurement tools influence the following asset management processes and decisions:

- Asset strategic planning to meet whole-of-Government requirements and Shire priorities;
- Planning decisions prior to procurement and investment, including the development of business cases for funding bids;
- Disposal and rationalisation decisions;
- Replacement and maintenance decisions;
- Renewal/refurbishment decisions; and
- Benchmarking and continuous improvement.

The Shire does not currently formally measure the performance of its assets. Performance criteria need to be developed to enable objective assessment of each asset, against criteria that meets the Shire strategic objectives and outcomes, and the required technical and community level of service set for each (i.e. against level of service).

6.8.1 Water Supply, Waste Water, Power Supply & Telecommunications

There is concern regarding the adequacy of water supply, waste water, power supply and telecommunications systems to the EKRA. The EKRA Master Plan 2017 notes that these need to be addressed and therefore provision has been made in the future renewal model for their upgrade and renewal. However, these are only indicative figures and need to be refined further following detailed analysis.

6.9 Asset Life & RICL

A key aspect of asset management is determining optimum life for lowest lifecycle cost. The lives[18] and RICL[19] of each asset group utilised in the financial modelling undertaken in developing the AMP are as follows;

6.9.1 Buildings

	Asset Set No.	Asset Group	Buildings	Modelled Y/N	Primary Unit	Rate / Unit	Life	RICL	Default Condition
Buildings	1	Regional Buildings	R - Long Life Structures	Yes	No	$1,146,521.71	80	6.5	Custom
	2	Regional Buildings	R - Short Life Structures	Yes	No	$101,589.52	60	6.5	Custom
	3	Regional Buildings	R - Roof Cladding	Yes	No	$42,262.89	40	6.5	Custom
	4	Regional Buildings	R - Mechanical Services	Yes	No	$79,187.22	25	6.5	Custom
	5	Regional Buildings	R - Fit Out	Yes	No	$347,115.13	30	6.5	Custom
			Total Buildings						

Table 19: Buildings Modelling Parameters

6.9.2 Furniture & Equipment

	Asset Set No.	Asset Group	Furniture & Equipment Type	Modelled Y/N	Primary Unit	Rate / Unit	Life	RICL	Default Condition
Furniture & Equipment	6	Furniture & Equipment	Furniture	Yes	No	$8,676.74	7	7	Custom
	7	Furniture & Equipment	IT Equipment	Yes	No	$7,097.87	4	7	Custom
			Total Furniture & Equipment Type						

Table 20: Furniture & Equipment Modelling Parameters

[18] Asset lives were determined in 2014 from workshops with staff involved in asset management across the organisation and were refined and reconfirmed through the issue of the asset data request to staff in 2017 as part of development of Ver 2 of the AMP. Staff associated with particular assets are recommended to continue refining the selected asset lives for each asset group.

[19] See Section 7.2 on page 49 for a more detailed definition of RICL. Asset Group RICLs were determined in 2014 from workshops with staff involved in asset management across the organisation and were refined and reconfirmed through the issue of the asset data request to staff in 2017 as part of development of Ver 2 of the AMP. The Shire staff associated with particular assets are recommended to continue refining the selected asset RICLs for each asset group.

6.9.3 Plant and Equipment

Plant & Equipment	Asset Set No.	Asset Group	Plant & Equipment Type	Modelled Y/N	Primary Unit	Rate / Unit	Life	RICL	Default Condition
	8	Plant & Equipment	Mobile Plant	Yes	No	$46,218	10	7	Custom
	9	Plant & Equipment	Fixed Plant	Yes	No	$52,305	10	7	Custom
	10	Plant & Equipment	Security Screening Equipment	Yes	No	$127,667	5	7	Custom
	11	Plant & Equipment	Navigational Aids	Yes	No	$519,843	15	7	Custom
	12	Plant & Equipment	Baggage Handling Equipment	Yes	No	$310,500	7	7	Custom
	13	Plant & Equipment	Miscellaneous Equipment	Yes	No	$12,534	5	7	Custom
			Total Plant & Equipment Type						

Table 21: Plant and Equipment Modelling Parameters

6.9.4 Infrastructure - Roads (Kerb)

Infrastructure - Roads (Kerb)	Asset Set No.	Asset Group	Infrastructure - Roads (Kerb)	Modelled Y/N	Primary Unit	Rate / Unit	Life	RICL	Default Condition
	14	Kerbing	Sealed Road Kerb	Yes	Metres	$120.00	60	7	Custom
			Total Infrastructure - Roads (Kerb)						

Table 22: Infrastructure - Roads (Kerb) Modelling Parameters

6.9.5 Infrastructure Drainage

Infrastructure - Drainage	Asset Set No.	Asset Group	Infrastructure - Drainage	Modelled Y/N	Primary Unit	Rate / Unit	Life	RICL	Default Condition
	15	Drainage	Culverts	Yes	Metres	$850	60	7	Custom
	16	Drainage	Headwalls	Yes	No	$1,500	80	7	Custom
	17	Drainage	Pits	Yes	No	$3,500	60	7	Custom
	18	Drainage	Pipes	Yes	Metres	$850	60	7	Custom
	19	Drainage	Open Unlined Drains	Yes	Metres	$30	25	7	Custom
			Total Infrastructure - Drainage						

Table 23: Infrastructure Drainage Modelling Parameters

6.9.6 Infrastructure – Pathways

Infrastructure - Pathways	Asset Set No.	Asset Group	Infrastructure - Pathways	Modelled Y/N	Primary Unit	Rate / Unit	Life	RICL	Default Condition
	20	Pathways	Brick Paved	Yes	sqm	$140.00	40	7	Custom
	21	Pathways	Concrete	Yes	sqm	$120.00	80	7	Custom
			Total Infrastructure - Pathways						

Table 24: Infrastructure – Pathways Modelling Parameters

6.9.7 Infrastructure – Airports

Infrastructure - Airports	Asset Set No.	Asset Group	Infrastructure - Airports	Depreciable Y/N	Primary Unit	Rate / Unit	Life	RICL	Default Condition
		Airports	Airside Aerodrome Formation	No	sqm	$20.00	100	7	Custom
	22	Airports	Runway Pavement	Yes	sqm	$42.00	80	7	Custom
	23	Airports	Runway Seal	Yes	sqm	$145.00	25	7	Custom
	24	Airports	Taxiway Pavement	Yes	sqm	$51.00	80	7	Custom
	25	Airports	Taxiway Seal	Yes	sqm	$130.00	25	7	Custom
	26	Airports	RPT Apron Pavement	Yes	sqm	$51.00	60	7	Custom
	27	Airports	RPT Apron Seal	Yes	sqm	$130.00	25	7	Custom
	28	Airports	GA Apron Pavement	Yes	sqm	$35.00	60	7	Custom
	29	Airports	GA Apron Seal	Yes	sqm	$75.00	25	7	Custom
		Airports - Roads & Car Parks	Carpark Formation	No	sqm	$15.00	100	7	Custom
	30	Airports - Roads & Car Parks	Carpark Pavement	Yes	sqm	$30.00	60	7	Custom
	31	Airports - Roads & Car Parks	Carpark Seal	Yes	sqm	$15.00	20	7	Custom
		Airports - Roads & Car Parks	Road Formation	No	sqm	$10.00	100	7	Custom
	32	Airports - Roads & Car Parks	Road Pavement	Yes	sqm	$20.00	60	7	Custom
	33	Airports - Roads & Car Parks	Road Seal	Yes	sqm	$15.00	30	7	Custom
			Total Infrastructure - Airports						

Table 25: Infrastructure – Airports Modelling Parameters

6.9.8 Infrastructure – Water & Sewer

Infrastructure - Sewerage	Asset Set No.	Asset Group	Infrastructure - Water & Sewer	Modelled Y/N	Primary Unit	Rate / Unit	Life	RICL	Default Condition
	34	Water & Sewer	Waste Water System	Yes	No	$150,000.00	30	7	Average
	35	Water & Sewer	Water Supply	Yes	No	$750,000.00	15	7	Very Good
			Total Infrastructure - Water & Sewer						

Table 26: Sewerage Modelling Parameters

6.9.9 Infrastructure - Other

Infrastructure - Other	Asset Set No.	Asset Group	Infrastructure - Other	Modelled Y/N	Primary Unit	Rate / Unit	Life	RICL	Default Condition
	36	Misc.	Fencing - Security	Yes	Metres	$150.00	25	7	Good
	37	Misc.	Fencing - Stock Proof - 1.2m 100mm x 100mm mesh	Yes	Metres	$15.00	25	7	Average
	38	Misc.	Fence Access - Stock Gates	Yes	No	$1,500.00	25	7	Above Average
	39	Misc.	Fence Access - Electric Security Gates	Yes	No	$15,000.00	25	7	Very Good
			Total Infrastructure - Other						

Table 27: Infrastructure - Other Modelling Parameters

6.10 Condition

Assets have a range of factors that influence their usability. From an asset management perspective, the various factors fall into one of the following groups:

- Fitness for Use; (Condition)
- Fitness for Purpose (Functionality)

Fitness for Use is a measure of the asset's physical condition relative to its condition when first constructed or refurbished. This measurement takes account of the current condition of the physical integrity of the building asset. Future condition assessments should be based on Fitness for Use.

Common to all asset classes is the condition rating system used. The system used in this plan is a standard scale of 0-10, where 0 = new and 10 = total deterioration.

Condition Rating	Definition
0	New asset or component recently rehabilitated to new condition.
1	As New Condition, no visible signs of wear and tear or defects.
2	In excellent condition with only very slight condition decline (obvious no longer new).
3	In very good condition with some early signs of wear and tear commensurate with age and use.
4	In good condition with some obvious signs of wear and tear but no evidence of deterioration.
5	In fair condition, minor evidence of deterioration of the element which could potentially shorten life.
6	In fair to poor condition with significant evidence of deterioration of the element which could lead to failure.
7	In poor condition with evidence of minor isolated failure which will reduce future life, maintenance costs high.

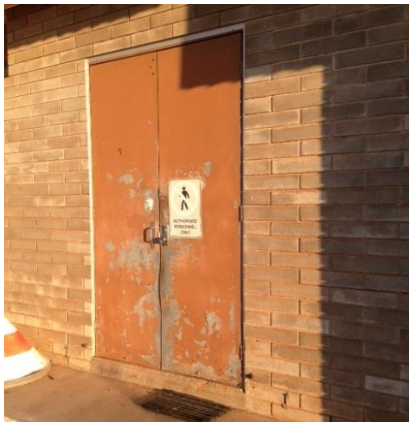
Condition Rating	Definition
8	In very poor condition with evidence of multiple failures and the inability to continue to satisfactorily provide the original intended purpose.
9	In extremely poor condition with significant evidence of failure of the element and failure to provide design purpose.
10	Total failure, extreme risk in leaving asset in service.

Table 28: Condition Rating Definitions

The following photographs are examples of condition ratings as applied to different types of airport assets. Condition 6 & 7 photos are photos of actual EKRA assets, Condition 8 & 9 phots are generic examples as there were no photos taken at the EKRA in the condition 8 & 9 range.

Condition 6

The following photographs show deterioration that is now becoming obvious. The asset is at a stage where its serviceability is starting to become limited with increasing maintenance costs.



Condition 7

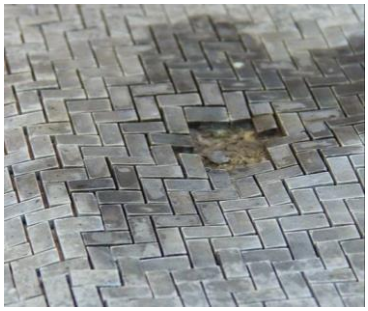
The following photographs show significant problems that are at the point where intervention is required otherwise injury could be caused due to hazards. This deterioration would be starting to limit the serviceability of the asset with maintenance costs becoming high.



Condition 8

The examples below are affected by age or poor conditions. They are in very poor overall condition with their serviceability being heavily impacted and structural integrity being compromised. Maintenance costs would be very high. The asset would be at a point where its complete renewal would be considered.





Condition 9

Age and neglect of maintenance has heavily impacted on the assets below. They are in extremely poor condition with severe serviceability problems. Each asset is in need of renewal immediately.



6.11 Functionality

Functionality (Fitness for Purpose) is a measure of an assets match to its current or intended use. It considers the minimum feature set required and additional features desirable to enhance the usability of an asset. Functionality is tied to the **use** of the asset, rather than the asset itself and takes account of changing requirements for different features over time.

Whilst the Main Runway at the EKRA is in very good condition, having recently been strengthened and resealed, it has been determined through the Mater Planning process that the functionality of the runway can be increased from its current Code 3C status to Code 4C through lengthening (short term) and widening (longer term) to cater for larger aircraft.

The impact of the runway extension, in terms of generation of future renewal and maintenance demand (along with the associated assets impacted by the extension, e.g. taxiways, aprons and buildings) has been modelled in this asset management plan.

6.11.1 Current Condition

A condition inspection was undertaken by Core Business Australia, of Airport Assets during April 2014 and updated by Core Business Australia in February 2017. At the commencement of the 2014 inspection the Shires Airport Operations Manager was provided with an overview of the Asset Management Planning process and initial training in condition assessment. The condition assessment was then undertaken by CORE's inspecting officer with reference to the judgement of the Airport Operations Officer's professional knowledge of many items in each asset class.

6.11.2 Custom vs Default Condition Profiles

One of the key aims of this asset management plan is to determine future asset renewal funding demand. An asset renewal demand model (known as the Moloney Model[20]) was utilised to produce the renewal funding demand. The model relies upon input of asset condition profiles developed from either actual asset condition rating data (Custom Profiles) or where no condition rating data exists, and estimate of asset condition based on pre-determined condition profiles (Default Profiles).

In the majority of asset groups in this AMP a custom condition profile was created based on the results of the assessment to provide greater accuracy in the modelling scenario. In some instances, a custom profile was not required as a default profile would achieve similar accuracy or where components of assets could not be physically inspected (i.e. underground or roof space cables) and an estimate of condition was made.

Definitions in relation to the Default Condition Distribution Profiles used in the model can be found at Appendix F on page 80.

[20] See Section 7.0 for an overview of the Moloney Model and its application to this AMP

7.0 Financial Projections

This AMP includes a Financial forecast model to assist in predicting the future financial requirements. The forecasts are based upon the presumption that assets continue to be utilised indefinitely and so the asset will be replaced when its condition reaches the intervention condition.

Prior to preparing the model, discussion was held with the Airport Manager to set the modelling parameters, for example what conditions will be acceptable, and for what classes or uses of assets will the condition ratings, and intervention levels differ. Also, discussion occurred in relation to affordable levels of service in order to use the predictive model of financial requirements with a better degree of accuracy.

This section presents forecast asset renewal demand (Renewal Model) for the next 20 years based on identified assumptions (asset life, unit rates, intervention). This is compared to proposed capital expenditure figures derived from the 2017/18 Corporate Business Plan (detailed at section 2.8.2). It is anticipated that the renewal model will be reviewed annually and continue to be refined as planning studies, strategies and increased financial analysis are completed.

7.1 Moloney Model

The Moloney Renewal Model was utilised to develop the model. The Moloney Financial Model and Renewal Gap program was developed to assist Local Government authorities gain a better understanding of the future renewal cost associated with their infrastructure assets. These assets were created over a long period of time and Councils need to understand the future renewal demand pattern.

At the heart of the Moloney system is a financial modelling application hosted in MS-Excel file called "Model All". Two additional MS-Excel files enable the software to be more broadly used. Together these three files make up the Renewal Gap Modelling software suite that can be used in conjunction with any other asset management software system.

7.1.1 The Basics of the Moloney Model

The Moloney Model operates at a network level to determine the future renewal (or replacement) demand to maintain the whole of a like performing asset group to a predetermined condition level.

The model is predicated on the assumption that an individual asset is created; it decays with time, and will eventually require renewal, or rehabilitation. The rate of decay needs to be established and at any point in time the asset can be assigned a condition rating. The condition rating scale MUST be linked to the progress of the asset from "new" condition to the point at which it requires rehabilitation.

To drive the model the user first must identify sets of assets. These will have sufficient commonality in performance and costs to be usefully grouped and modelled. For each asset set to be modelled the program needs:

- Condition distribution based on a 0 – 10 scale where 0 is new and 10 has no remaining value.
- Deterioration curve expressed in average years life within each condition range 0 – 9.
- Unit renewal value of the asset – e.g. $\$20/m^2$ for road pavement rehabilitation
- Service level, or intervention level at which you need to rehabilitate the asset e.g. Condition 8

With all the above information in place, it becomes a mathematical exercise to determine the profile of the renewal demand. Once the actual or proposed renewal expenditure profiles are input, the renewal

gap profile is created by taking the proposed expenditure profile from the predicted renewal demand profile.

7.2 Retreatment Intervention Condition Rating (RICL)

In the Moloney Renewal Model, the intervention point is known as the Retreatment Intervention Condition Level (RICL).

In order to determine how much money needs to be spent on an asset to keep it in functional order, a decision is required in regard to when to intervene to undertake works to renew the asset (i.e. Where to set the RICL). Ideally this indicator will be derived from the community consultation carried out as part of a structured Level of Service / Community Engagement exercise to determine and document levels of service. As this exercise is yet to take place, this plan has utilised the Officer's knowledge and current practice to determine intervention levels (RICL).

The RICL range in the Moloney model is 0 to 10, refer to Table 28 for definitions. **The selected RICL for each asset set is detailed at Section 6.9 on page 41.**

7.3 Current Financial Position

The Shire has been successful in recent years in obtaining Regional Airport Development Scheme (RADS) grants and Royalties for Regions grants for capital upgrade (new terminal) and renewal (reseal of runway) of airport infrastructure. This has resulted in significant expenditure and a number of major assets, specifically the Runway and Terminal, are in near new condition.

Ordinarily, for the modelling exercise, historical expenditure over recent years would be utilised in the model to understand the funding gap. However, in this case, utilising historical expenditure as an indicator of future expenditure (and consequently expenditure shortfall) is not a good indicator.

Instead, future capital renewal expenditure from the Shire's 2017/18 Corporate Business Plan has been used. This plan only covers 4 years, therefore future estimated expenditure has only been included for the first 4 years of the model. Beyond the first four years an amount equivalent to the Airport's annual depreciation expense of $762k / annum has been used in the model.

In future revisions of the AMP it will be important to build into the model, the proposed expenditure allocations from targeted capital grants that are proposed to be identified through the proposed long term financial plan development exercise, return from investments (e.g. solar power plant) and forecast increases in aviation activities.

7.4 Current Renewal Demand

The Moloney Renewal Modelling tool provides two different models. The first model is the predicted renewal demand based on the asset life, condition and nominated intervention (RICL).

The graph below (Figure 9) details the long-term renewal funding demand generated by the Moloney Model which estimates the required funding level necessary for the retention of assets at current level of service (i.e. at or above the nominated RICL) for the next 20 years. The resultant average annual Renewal demand over 20 years is $1.88m/annum with $570k required in the first year rising to a peak of $2.78m in year 17 (2034).

Renewal Demand starts low and steadily increases due to the relatively good condition of assets as a result of significant capital investment in renewal in recent years. As can be seen from the navy blue

columns, this investment continues as a result of the runway extension project which includes the proposal to renew and strengthen the Runway, RPT Apron and Taxiways which is set out in the 2017/18 CBP over the next 4 years.

Beyond the first 4 years, renewal investment is yet to be identified, however an amount of $762k/annum has been allowed in the model for capital asset renewal which is equivalent to the current depreciation expense being charged in the airport's operating budget. This will be refined as part of the plan to develop a Long Term Financial Plan for the airport, which is identified as a task in the 2017/18 CBP.

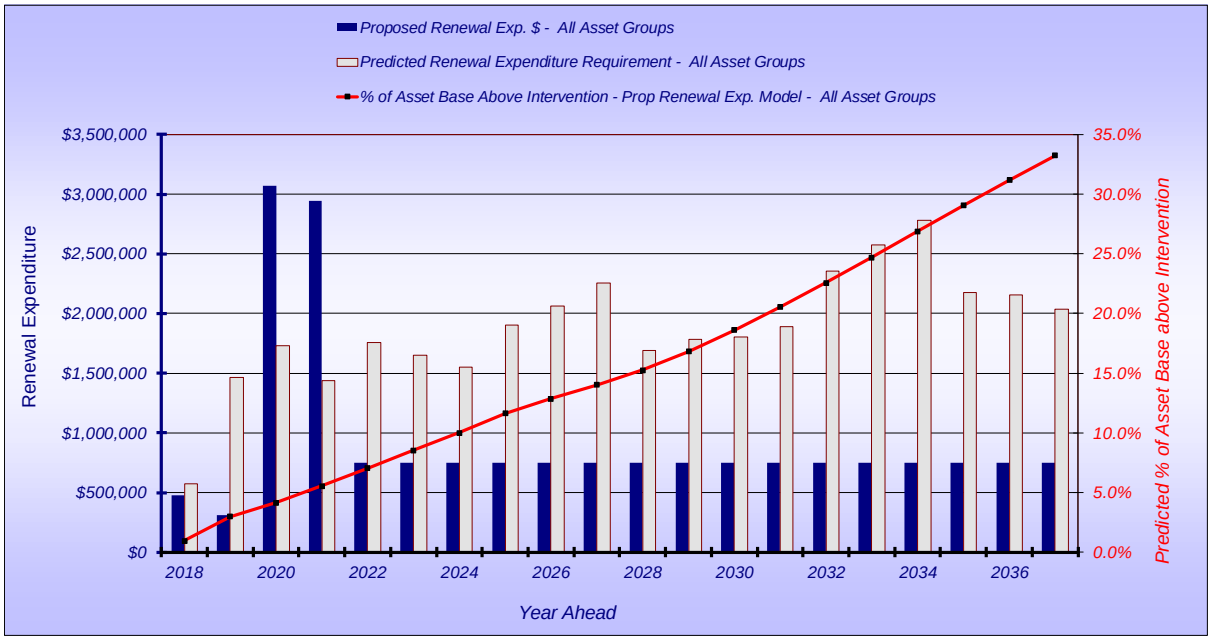


Figure 9: Predicted Renewal Demand

The following graph shows the Renewal funding demand detailed in Figure 9, however split by each asset group. Greater detail is provided in relation to specific renewal funding demand of each asset group in at Appendix G which is provided as a separate document.

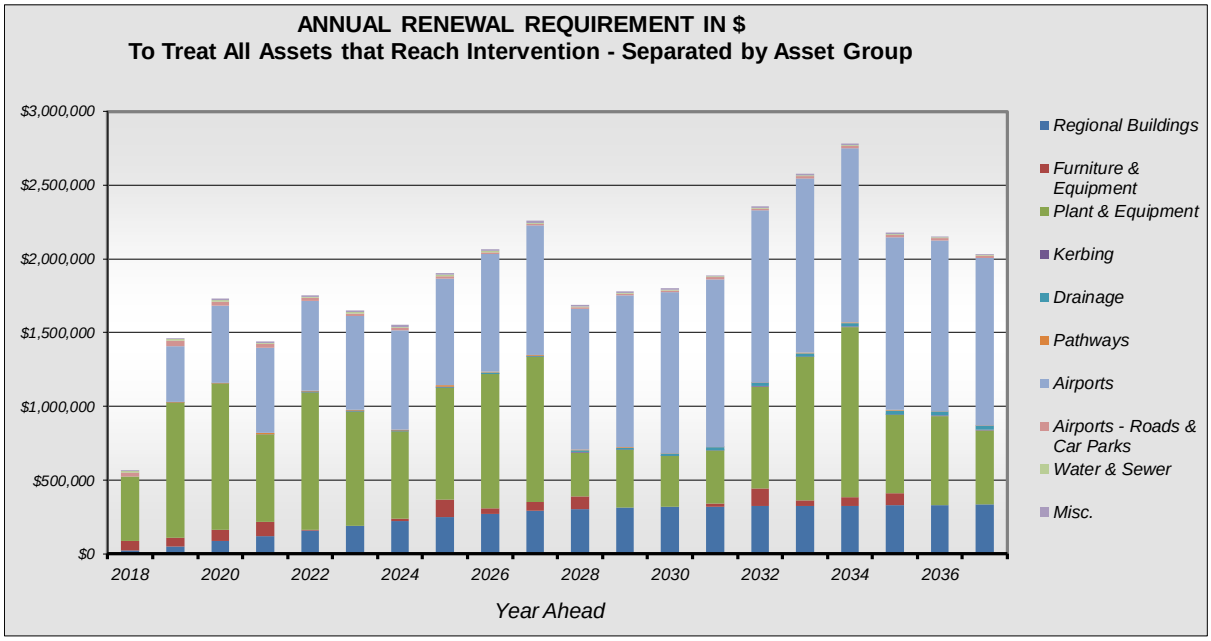


Figure 10: Predicted Renewal Demand, Split by Asset Class

7.5 Current Renewal Expenditure

The second model provided by the renewal modelling tool sets out an analysis of what the Shire currently spends on renewal. As detailed in section 7.2 analysis was problematic due to a number of factors and the expenditure used for modelling has been based on a minimalistic profile to allow understanding of the impact on asset condition of minimal spending. This is currently modelled at an average of $1.70m /annum over the first four years due to anticipated receipt of funding to extend the runway and renewal and strengthen the RPT Apron and Taxiways and then beyond the first four years and amount equivalent to depreciation expense charged in the airport's operating budget has been allowed. The full 50 year expenditure profile used in the model is included at Appendix C on page 67.

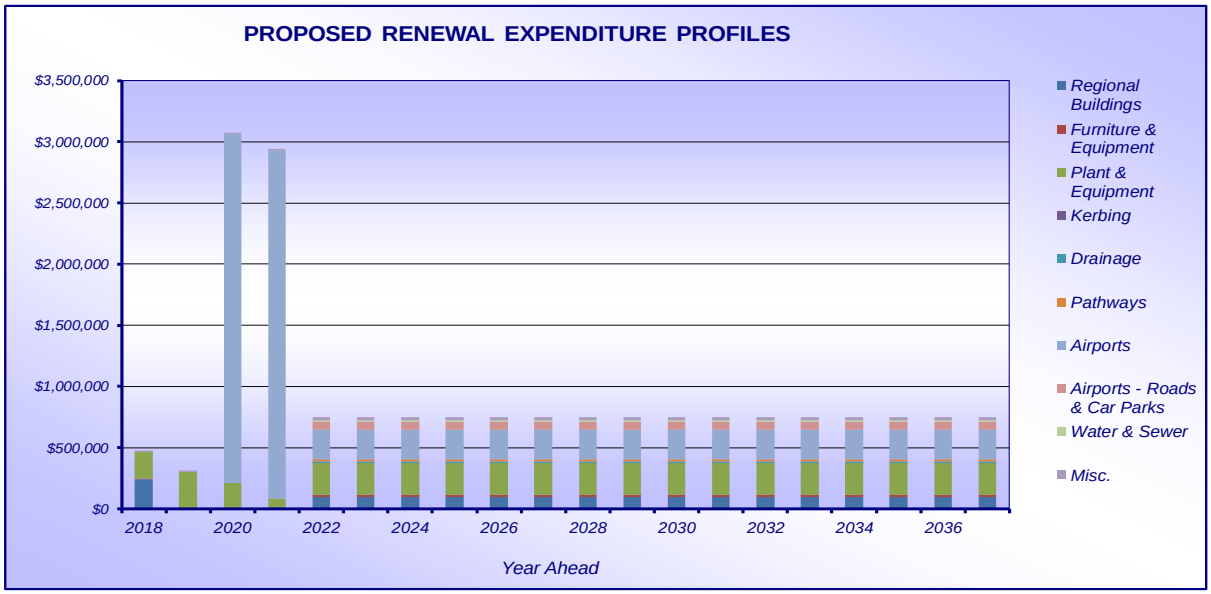


Figure 11: Current Renewal Expenditure, Split by Asset Group

7.6 Renewal Funding Gap

The modelling tool then subtracts the second model from the first to identify the overall average (20 year) annual funding gap (shortfall in renewal expenditure) of $1.50m/annum.

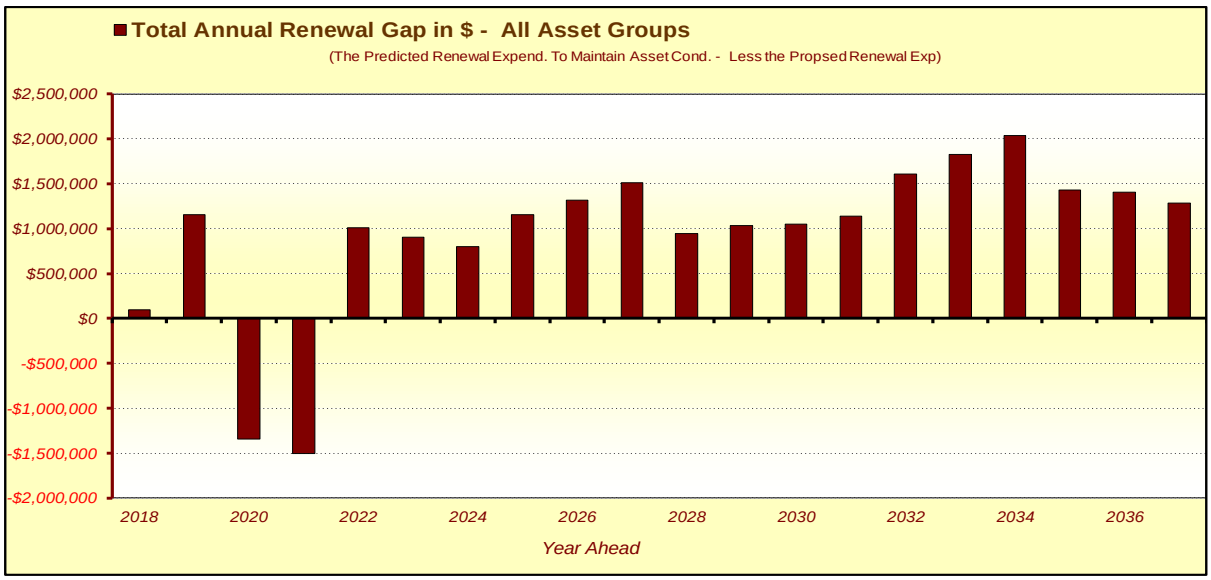


Figure 12: Annual Renewal Funding Gap

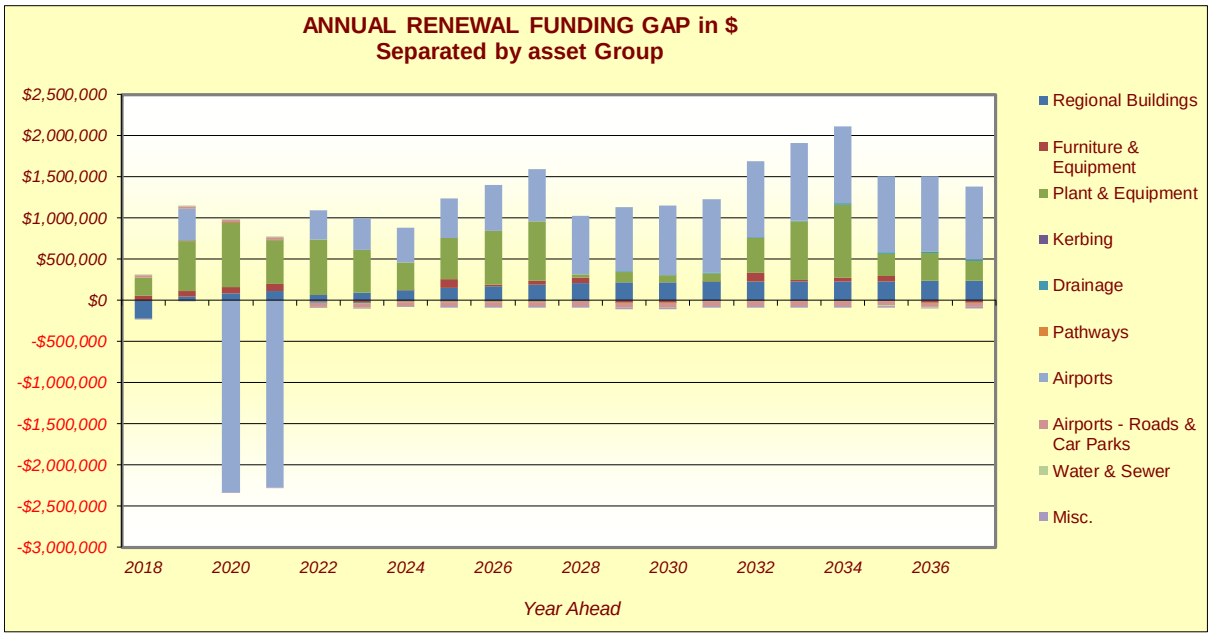


Figure 13: Annual Renewal Funding Gap Split by Asset Groups

7.7 Cumulative Renewal Gap

The following graph demonstrates the long term cumulative funding impact if council continues to fund asset renewal at current levels. It indicates that there will be a cumulative effect of underfunding of the order of $18.8m over the 20 year modelling period.

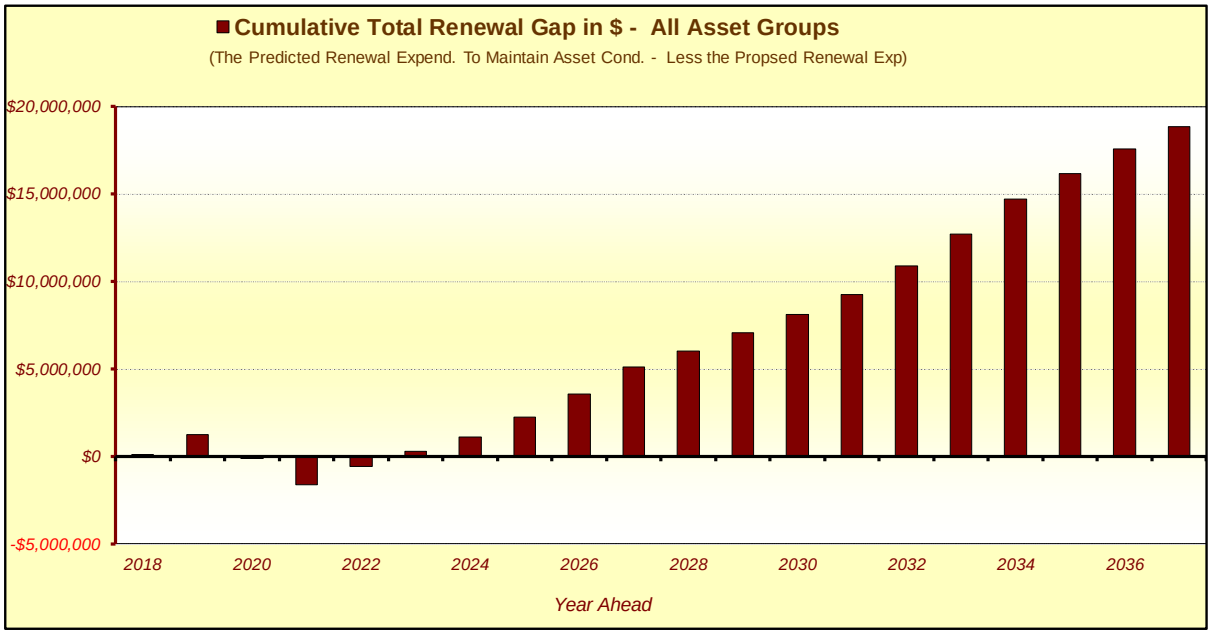


Figure 14: Cumulative Renewal Gap

7.8 Asset Base Outside of Intervention

There are currently 0.97% of assets outside of intervention, however if renewal funding was set at the modelled annual average of $938k/annum, after 20 years, 33.25% of assets will be exceeding

intervention. This would no doubt be an unacceptable situation to the Community and result in severe consequences relating to ability of the Airports assets to meet operational requirements.

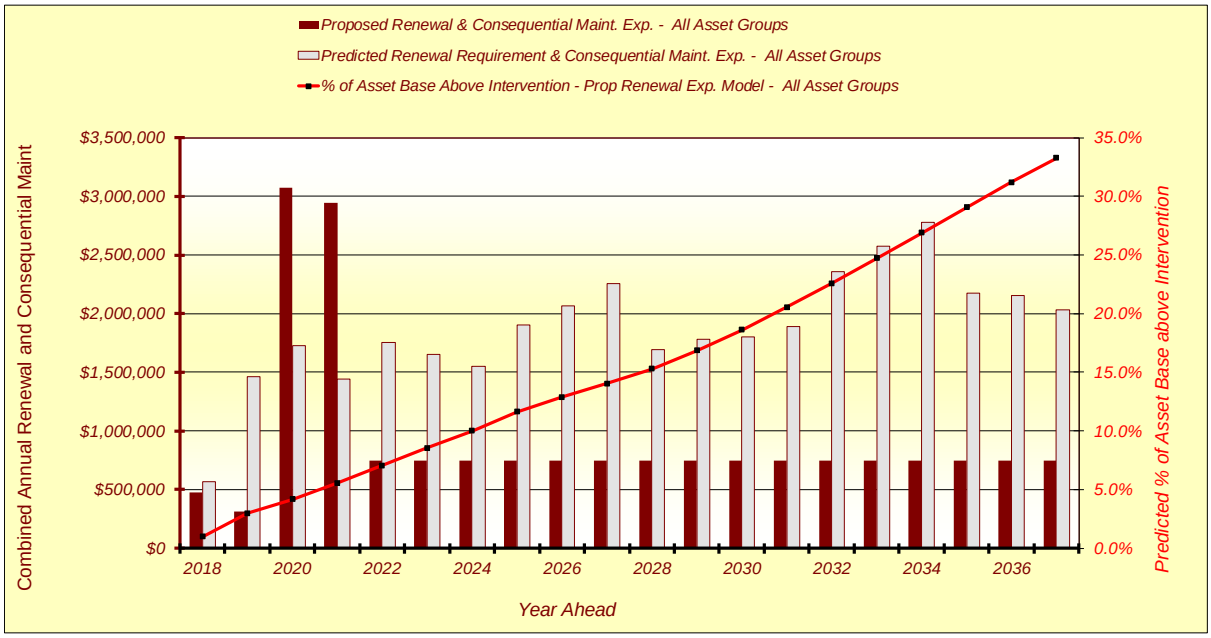


Figure 15: Predicted Renewal Demand and Consequential Maintenance vs Current Renewal Expenditure and Consequential Maintenance Showing % of Asset Base beyond Intervention

7.9 Proposed Infrastructure Renewal Demand Generated by the EKRA Master Plan 2017

The EKRA Master Plan 2017 proposes $33.5m[21] in new assets of which $26.0m will be new depreciable assets. This brings the total asset base to $108.2m, $78.4m of depreciable asset that will generate ongoing renewal funding demand. It is estimated that the proposed new depreciable assets will increase Annual Average Renewal Demand from $1.88m / annum to $2.45m / annum, a significant increase.

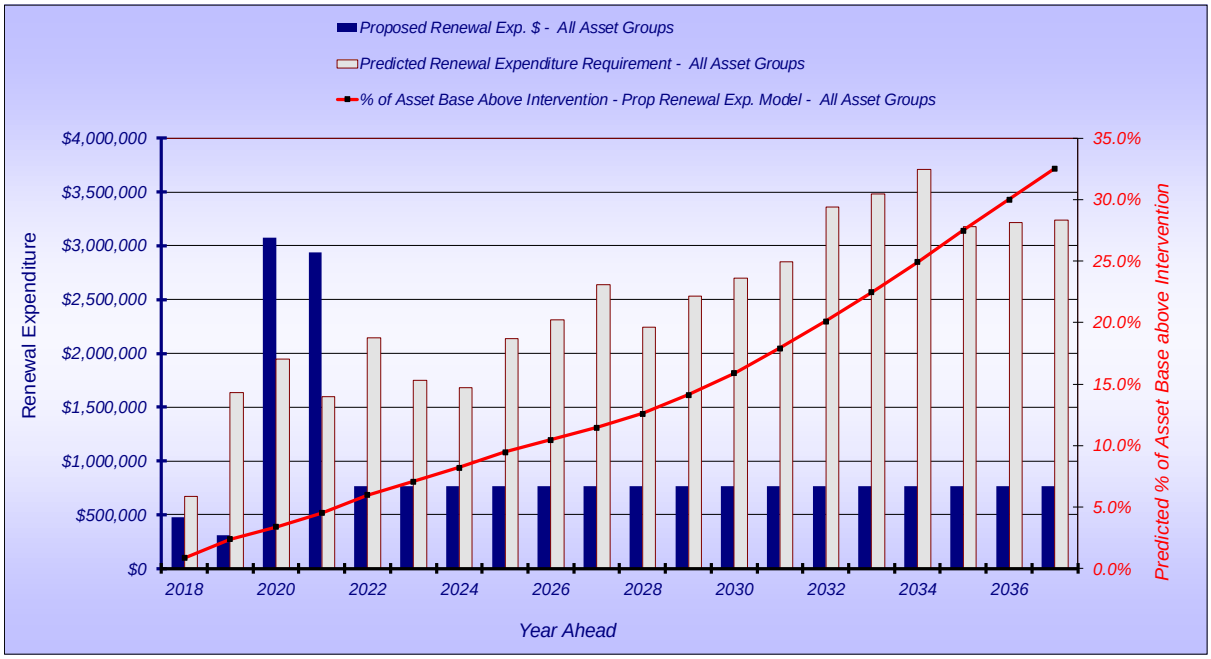


Figure 16: Predicted Renewal Demand based on new assets identified in the EKRA Master Plan 2017

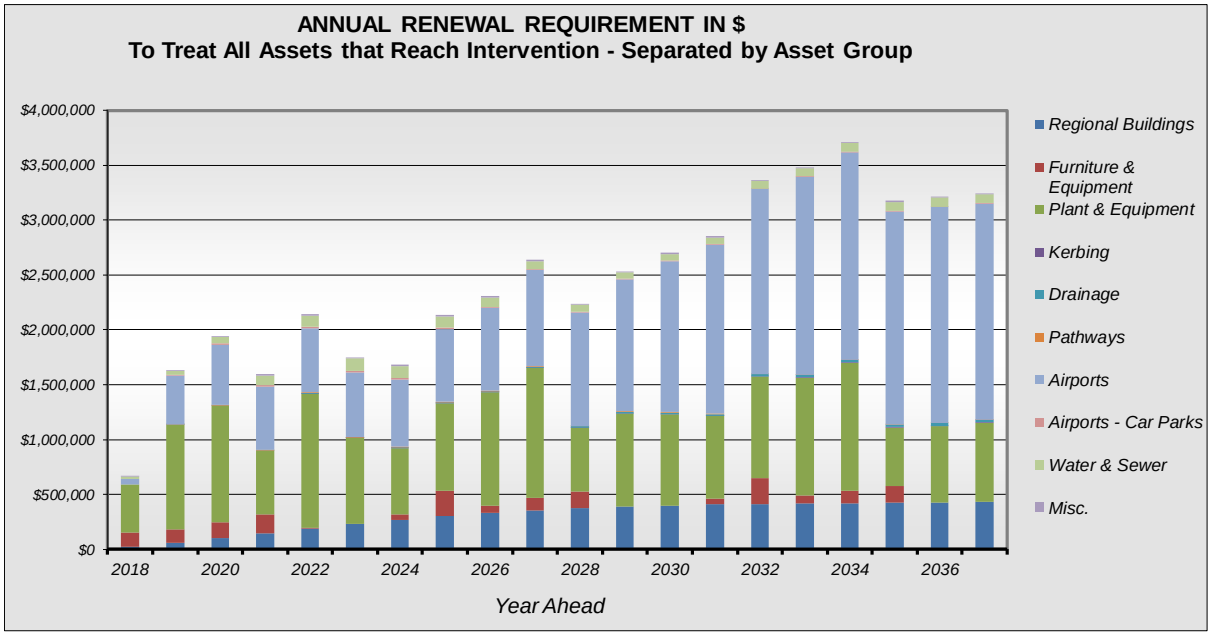


Figure 17: Predicted Renewal Demand based on new assets identified in the EKRA Master Plan 2017, split by Asset Class

[21] Individual new assets are detailed in Red in the tables under Appendix D.

Based on current proposed spending on asset renewal, this will increase the Annual Average Renewal Gap, shown in the following graph, from $0.94m / annum to $1.50m / annum.

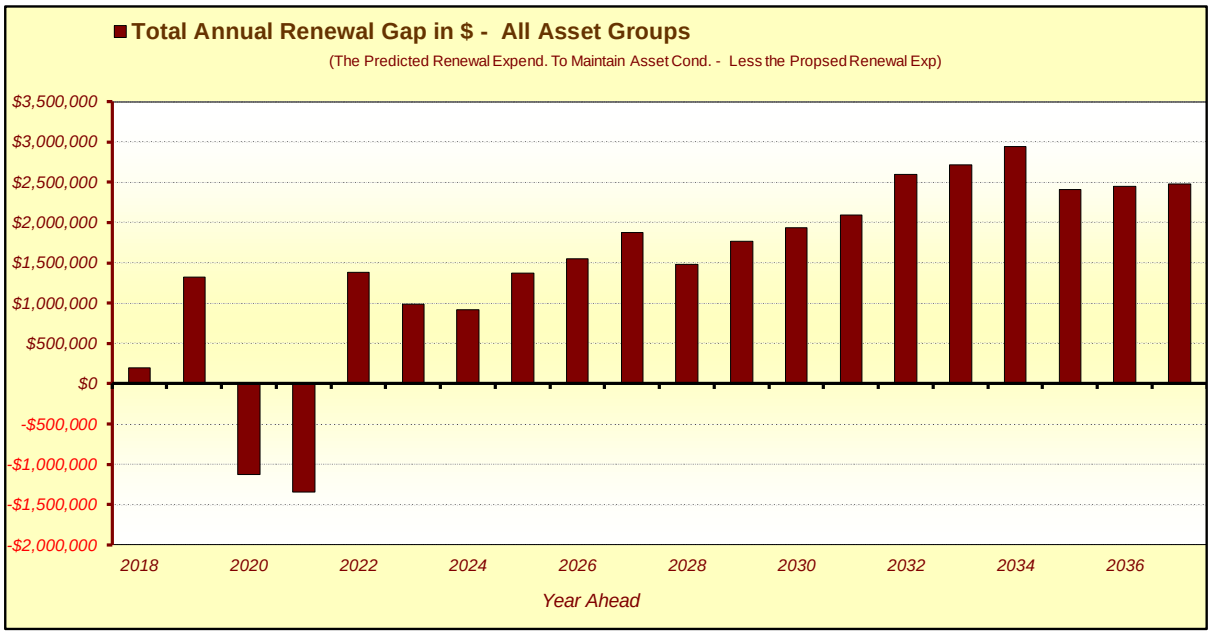


Figure 18: Predicted Renewal Gap bused on current proposed Renewal Expenditure and increase in the asset base identified in the EKRA Master Plan 2017

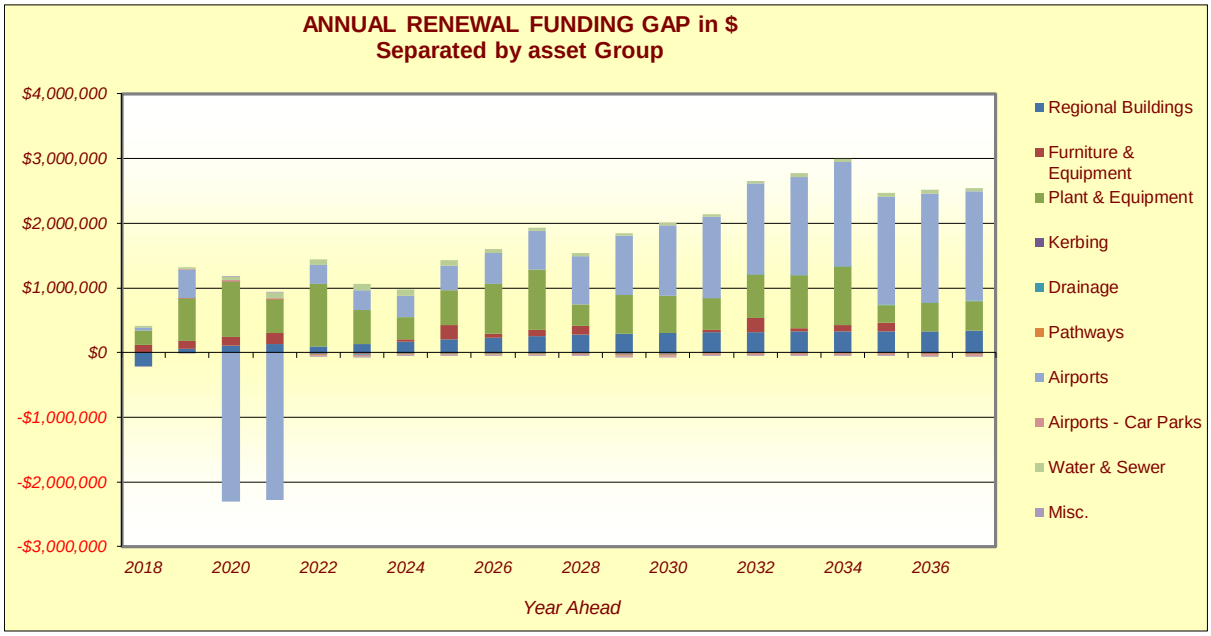


Figure 19: Predicted Renewal Gap bused on current proposed Renewal Expenditure and increase in the asset base identified in the EKRA Master Plan 2017, split by Asset Class

The predicted cumulative renewal gap generated by the model and including the new asset proposed by the EKRA Paster Plan 2017 is estimated to be $30.0m after 20 years based on current proposed investment in asset renewal and is shown in the following graph.

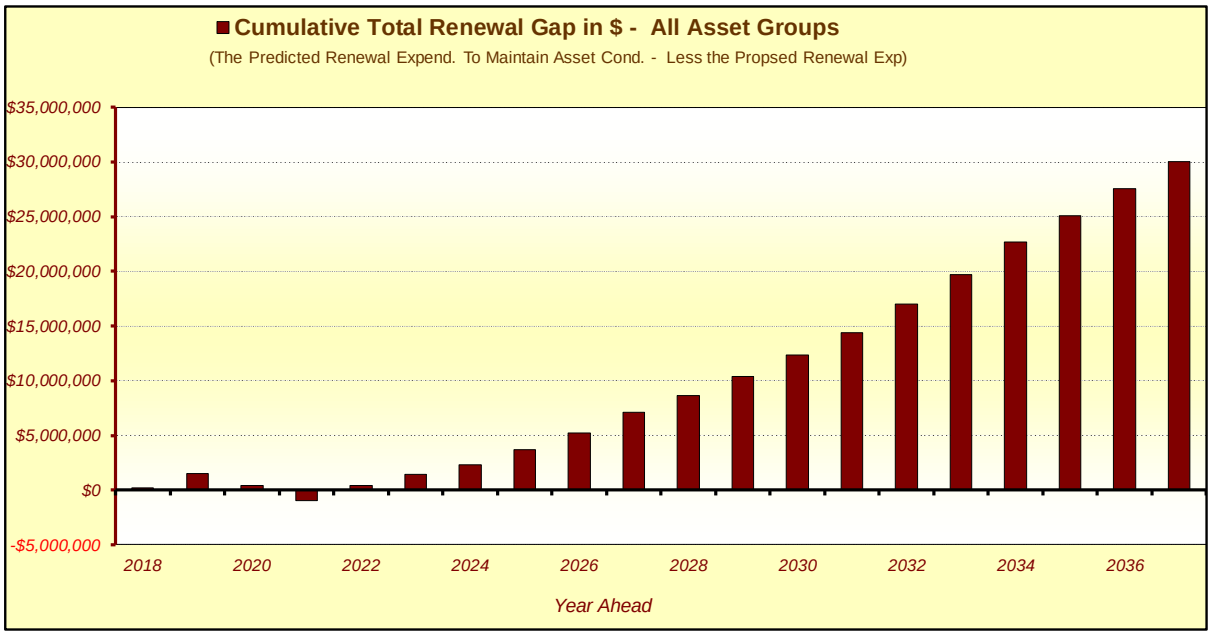


Figure 20: Predicted Cumulative Renewal Gap over 20 years including new asset proposed by the EKRA Master Plan 2017

7.10 Funding Solution

The EKRA's operating income is equivalent to $3.9m. To close the predicted $0.94m/annum funding gap over 18 years and fully funded from operating income, would require an additional 2.05% increase in operating income, over and above any increase to cover inflation or new infrastructure elsewhere, every year for 18 years.

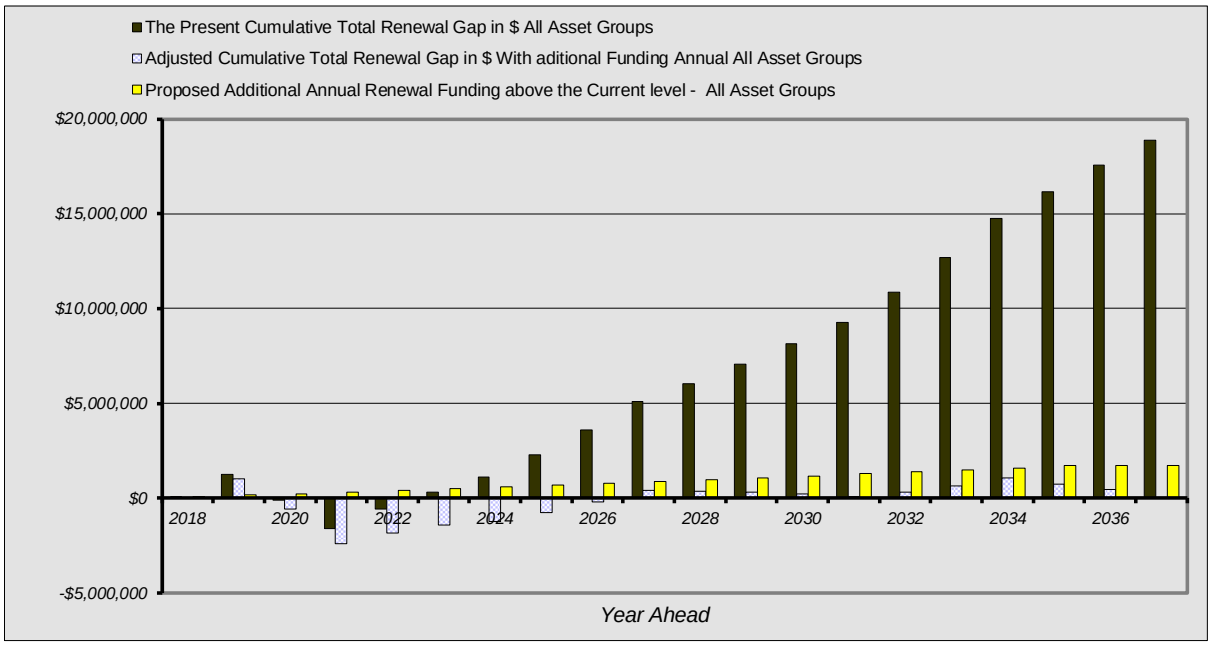


Figure 21: Effect on cumulative renewal gap of $1.55m/annum of a 1.35% rate increase every year over 18 years

The effect of the additional $26.0m in proposed depreciable asset is equivalent to an additional 1.00% increase in operating income each year over 18 years.

8.0 Asset Management Improvement

As part of the exercise of developing this asset management plan, a Geographic Information System (GIS) was prepared to accurately ascertain, location and dimensions of current airport infrastructure. It is recommended that this GIS be developed further and regularly maintained in line with this asset management plan.

The Shire has developed a summary asset management plan and has supporting asset management systems and processes. While this asset management plan is based on the summary asset management plan structure, it is recommended that this plan be integrated further with corporate-wide asset management systems and processes.

A key element of asset management is Level of Service, it is recommended that an airport specific level of service framework is developed and documented in this asset management plan. This will also help with the development of an Operation and Maintenance Strategy, a Renewal and Replacement Strategy and a Capital Investment Strategy as it will guild in the prioritisation of expenditure.

Extensive work has been undertaken to refine the asset renewal model for this asset management plan. Future update of the plan will be aided by key Officers involved in the management of the airport having detailed understanding of the model, how it works and modelling scenario options it presents. This is considered to be an essential element in developing the business cases / feasibility proposed by the EKRA Master Plan 2017 that will be required to diversify and increase operating income for the airport.

Finally, the AMP requires extensive development of Risk Management to address Strategic, Tactical and Operation risks associated with running an airport.

Key improvement tasks that are recommended to be implemented

Improvement Task	By When
Continue to development and maintenance of an airport GIS in order to spatially keep track of all airport related assets.	Ongoing
Undertake corporate-wide training in asset management by scheduling a WAMMI workshop.	by Mar 2018
Develop a Level of Service Framework for the Airport	By Dec 2018
Develop an Airport Forward Capital Works Plan as part of an Airport Long Term Financial Plan	By Jun 2018
Undertake an "as-constructed" survey of all Sewer, Water, Drainage, Electrical and Telecommunication Assets.	By Dec 2018
Develop a Risk Management framework for the EKRA that considers Strategic, Tactical and Operational Risk and document in the AMP.	By Mar 2019

9.0 Glossary

9.1 Definitions

The following terms are used in this strategy.

(Definitions from the International Infrastructure Management Manual, International Edition 2006)

Asset
A physical component of a facility, which has value, provides service or enables services to be provided and has an economic life of greater than 12 months.

Asset Management
The combination of management, financial, economic, and engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner.

Asset Management Plan
A plan developed for the management of one or more infrastructure assets that combines multi-disciplinary management techniques over the lifecycle of the asset in the most cost-effective manner to provide a specified level of service.

Asset Management Strategy
A strategy for asset management covering the development and implementation of plans and programmes for asset creation, operation, maintenance, rehabilitation/replacement, disposal and performance monitoring to ensure that the desired levels of service and other operational objectives AM achieved at optimum cost.

Current Replacement Cost
The cost of replacing the service potential of an existing asset, by reference to some measure of capacity, with an appropriate modern equivalent asset.

Depreciation
The wearing out, consumption or other loss of value of an asset whether arising from use, passing of time or obsolescence through technological and market changes. It is accounted for by the allocation of the cost (or revalued amount) of the asset less its residual value over its useful life.

Gap Analysis
A method of assessing the gap between a business's current asset management practices and the future desirable asset management practices. Also called needs analysis.

Geographic Information System (GIS)
Software, which provides a means of spatially viewing, searching, manipulating, and analysing an electronic database.

Infrastructure Assets
Stationary systems forming a network and serving whole communities, where the system as a whole is intended to be maintained indefinitely at a particular level of service potential by the continuing replacement and refurbishment of its components. The network may include normally recognised ordinary assets as components.

Key Performance Indicator (KPI)
A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

Level of Service
The defined service quality for a particular activity (i.e. roads) or service area (i.e. Street lighting) against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental acceptability and cost.

Life
A measure of the anticipated life of an asset or component; such as time, number of cycles, distance intervals, etc.

Lifecycle Cost
The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, and rehabilitation and disposal costs.

Maintenance
All actions necessary for retaining an asset as near as practicable to its original condition, but excluding rehabilitation or renewal.

Renewal
Works to upgrade refurbish or replace existing facilities with facilities of equivalent capacity or performance capacity.

Replacement
The complete replacement of an asset that has reached the end of its life, to provide a similar or agreed alternative, level of service.

Replacement Cost
The cost of replacing an existing asset with an identical new asset.

RICL
In the Moloney Renewal Model, the intervention point is known as the Retreatment Intervention Condition Level (RICL). The RICL is the point at which the Asset Manager determines the asset component will have deteriorated to such a condition that it is economically prudent to initiate restoration works to bring the condition of that component back to new (condition zero (0)).

Strategic Plan
A plan containing the long-term goals and strategies of an organisation. Strategic plans have a strong external focus, cover major portions of the organisation and identify major targets, actions and resource allocations relating to the long-term survival, value and growth of the organisation

9.2 Abbreviations

AC – Asset Coordinator

AM – Asset Management

AMWG – Asset Management working group

IIMM – International Infrastructure Management Manual

LOS - Level of Service

LTFP – Long Term Financial Plan

O & M - Operations and Maintenance

RICL – Recurrent Intervention Condition Level

Appendix A. Asset Management Policy

POLICY NO	**CP/OPS - 3659**	
POLICY	**Asset Management**	
RESPONSIBLE DIRECTORATE	Infrastructure	
RESPONSIBLE OFFICER	Director Infrastructure	
COUNCIL ADOPTION	Date: 25 August 2015	Resolution No: 11070
REVIEWED/MODIFIED	Date: 18 July 2017	Resolution No:
	Date:	Resolution No:
REVIEW DUE	Date: July 2019	
LEGISLATION	*Local Government Act 1995, Section 5.56* *Local Government (Administration) Regulations 1996 Section 19DA*	
RELATED POLICIES	CP/OPS-3649 Maintenance of Shire Assets. CP/OPS-3650 Private Work CP/OPS-3651 Private Works and Developments on Road Verges and Council Managed Land.	
RELATED ORGANISATIONAL DIRECTIVES	Organisational Directive, Asset Management Procedures — Roles and Responsibilities.	
RELATED DELEGATIONS	12 - Tenders 13 - Disposal of Property 14 - Private Works 15 - Appointment of Consultants 23 - Contract Variations 38 - Public Thoroughfares 39 - Gates across Public Thoroughfare 40 - Dangerous Excavation in or near Public Thoroughfare 41 – Crossovers 42 - Permission to Deposit Materials On, or Excavate Adjacent to, a Street 43 - Events on Roads 44 - Road Trains and Extra Mass Permits 45 - Traffic Regulatory Signs 49 - Variation to Firebreak Orders 50 - Variation to Prohibited Burning Times	

PURPOSE:

The objectives of this policy are to ensure adequate provision is made for the long-term replacement of assets by:

1. Ensuring that Council's services and infrastructure are provided in a sustainable manner, with the appropriate levels of service to residents, visitors and the environment.

2. Applying best asset management practices as appropriate to the management of assets for the Shire of Wyndham East Kimberley.

3. Safeguarding Council assets including physical assets and employees by implementing appropriate asset management strategies and appropriate financial resources for those assets.

4. Allocating corporate responsibility for asset management and the necessary resources to deliver Asset Management strategies.

5. Creating an environment where all Council employees take an integral part in overall management of Council assets by creating and sustaining an asset management awareness throughout the organisation by training and development.

6. Assisting the Shire in compliance with the provisions of the State Government's Integrated Planning & Reporting Framework by having an integrated approach to planning for the future.

7. Meeting legislative requirements for asset management.

8. Ensuring resources and operational capabilities are identified and responsibility for asset management is allocated.

9. Providing a framework for implementing asset management to enable a consistent, coordinated and strategic approach.

10. Facilitate continuous improvement and innovation in delivering service in achieving service standards to benefit the community.

11. Provide a framework which quantifies risk and incorporates that into the decision making process.

12. Provide guidance to staff responsible for asset management.

DEFINITIONS:

"Asset" means a physical item that is owned or controlled by the Shire of Wyndham East Kimberley, and provides or contributes to the provision of service to the community (in this context excluding financial, intellectual, and non-tangible assets).

"Asset Management" means the processes applied to assets from their planning, acquisition, operation, maintenance, replacement and disposal, to ensure that the assets meet Council's priorities for service delivery.

"Asset Management Plan" means a plan developed for the management of an infrastructure asset or asset category that combines multi-disciplinary management techniques (including technical and financial) over the lifecycle of the asset.

"Council" means the elected Council (comprising Councillors) of the Shire of Wyndham East Kimberley.

"Infrastructure Assets" are fixed assets that support the delivery of services to the community. These include the broad asset classes of Roads, Drainage, Buildings and Parks.

"Level of Service" means the combination function, design and presentation of an asset. The higher the level of service, the greater the cost to deliver the service. The aim of asset management is to match the asset and level of service of the asset to the community expectation, need and level of affordability.

"Life Cycle" means the cycle of activities that an asset goes through while it retains an identity as a particular asset.

"Whole of life cost(s)" means the total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, and rehabilitation and disposal costs.

"Maintenance" means regular ongoing day-to-day work necessary to keep asset operating and to achieve its optimum life expectancy.

"Operations" - means the regular activities to provide public health, safety and amenity and to enable the assets to function e.g. road sweeping, grass mowing, cleaning, street lighting and graffiti removal.

"New" means creation of a new asset to meet additional service level requirements.

"Resources" means the combination of plant, labour and materials, whether they be external (contactors/consultants) or internal (staff/day labour).

"Renewal" means restores, rehabilitates, replaces existing asset to its original capacity. This may include the fitment of new components necessary to meet new legislative requirements in order that the asset may achieve compliance and remain in use.

"Risk" means probability and consequence of an event that could impact on the Council's ability to meet its corporate objectives.

"Shire" means the collective Shire of Wyndham East Kimberley organisation. The Chief Executive Officer of the Shire of Wyndham East Kimberley is responsible for ensuring the Shire's obligations and commitments are met.

"Stakeholders" are those people/sectors of the community that have an interest or reliance upon an asset and who may be affected by changes in the level of service of an asset.

"Upgrade" means enhances existing asset to provide higher level of service.

POLICY STATEMENTS:

Scope

This policy applies to all Shire activities and service delivery of the Shire. It relates specifically to the management of infrastructure assets under the care, control and responsibility of the Shire that are used to deliver services or the infrastructure management regime of third parties where the Shire facilitates service delivery by a third party. This may include but is not limited to;

- Government Agencies
- Private Enterprise
- Contractors

Background

The community relies on the Shire of Wyndham — East Kimberley to deliver services. The Shire has finite resources and limited income streams that can be targeted to fund service delivery. The Shire must ensure that service delivery is well targeted and aligns with the Community's aspirations identified via the Strategic Community Plan.

To ensure that scarce resources are optimally allocated, it is important that informed decisions are made when considering the acquisition, ongoing ownership, management and disposal of infrastructure assets. The Shire also needs to continuously consider whether it needs to provide or own assets in order to deliver services or whether it can simply facilitate the provision of the service by a third party, i.e. non asset ownership service delivery.

To assist with making informed decisions in relation to this issue, the Shire will put in place the following;

1. A Strategic Asset Management Framework that is consistent with National standards in Asset Management and Long Term Financial Planning (Nationally Consistent Approach).

2. Maintain a contemporary Asset Management Policy that is regularly reviewed (this Policy).

3. Develop, maintain and regularly review an Asset Management Improvement Strategy that clearly articulates a sustainable path for continuous improvement and identifies resources to implement via the budget process.

4. Develop, maintain and regularly review Asset Management Plans that cover all key Infrastructure Asset Classes.

5. Asset Management Plans will document the Council adopted level of service that applies to Infrastructure Assets which will be derived from Service Level Plans and the community engagement processes used to develop the Strategic Community Plan.

6. Ensure processes are in place to train Councillors and Officers in key aspects of Asset Management and Long Term Financial Planning.

Policy

1. To achieve the policy objectives, the Shire of Wyndham East Kimberley recognises that Asset Management is a major corporate function.

2. The Shire will make informed decisions in relation to its infrastructure assets. To achieve this, the Shire will prepare an Asset Management Improvement Strategy that will guide the implementation of asset management across the organisation with the key outcome being the adoption by Council of an Asset Management Plan for all classes of infrastructure assets.

3. Asset Management Plans will form part of the Shire's day-to-day business practices and will be used to make informed decisions in relation to asset management

4. The Shire has limited resources and is custodian of a large number of assets, many of which have reached or gone beyond their economic life. In making decisions in relation to infrastructure assets, the Shire will apply the philosophy of renewing assets before acquiring new assets and where possible, rationalising assets that are no longer used or do not provide the agreed level of service.

5. The Council will determine the level of service required for assets.

6. As part of Shire's consideration of asset management, the Shire will follow the following key principles:

    6.1. Prior to consideration of any major works for renewal or improvement to an asset, undertake a critical review of the need of that Asset;

    6.2. Will consider the Whole of life cost for all new assets and for any major renewal or improvements into the Shire's Long Term Financial Plans;

    6.3. Undertake to develop Asset Management Plans that are financially sustainable;

    6.4. Involve and consult with key stakeholders on determining levels of service and asset service standards;

    6.5. Manage its assets utilising a corporate team approach using a multi-discipline working group;

    6.6. Ensure asset information is accurate and up to date allowing for appropriate asset planning, both in the short and long term, and for informed decision making to occur;

    6.7. Allocate appropriate resources to ensure asset management practices can be undertaken and the timely maintenance and renewal or upgrade of those assets so that Life Cycle costs are optimised;

    6.8. Ensure the roles and responsibilities of all asset users are well defined and understood;

    6.9. Develop reporting procedures based on key principles of this Asset Management Policy;

    6.10. Training in asset and financial management will be provided for councillors and relevant staff;

    6.11. Continually seek opportunities for multiple uses of assets.

    6.12. Implementation of asset management as an organisational philosophy will occur through the Asset Management Practices Improvement Strategy.

EXPLANITORY NOTES:

Related Documents;

Asset Management Strategy and associated Asset Management Plans.

APPLICATIONS:

Implementation of asset management as an organisational philosophy will occur through the Organisational Directive, Asset Management Procedures — Roles and Responsibilities.

This policy applies to Council, Councillors, Executive Leadership Team, Staff and the community involved in the operations, maintenance, refurbishment, renewal, upgrading and development of Council's existing and new infrastructure assets.

RISK:

Risk: Failure to comply with legislative requirements leading to damage of reputation and/or financial loss.
Control: Review policies and procedures in accordance with review schedule.

Risk: Inability to deliver levels of service expected by the community
Control: Current budget and service levels.

Risk: Inability to fund the infrastructure gap.
Control: Develop LTFP to ensure critical assets maintained in Annual Budgets

Appendix B. Forward Capital Works Plan 2017/18 – 2020/21 (From 2017/18 CBP)

			$21,830,150			Total	$1,065,000	$650,775	$9,763,003	$9,711,372	$0	$0	$0	$0	$0	$0
							1	2	3	4	5	6	7	8	9	10
Project	Comment	Priority	Estimated Cost ($)	Renewal		Year	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027
EKRA Runway Extension Business Case	From 2017/18 CBP	Short	$80,000.00	0%		1	$80,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
EKRA Runway Extension Stage 1	From 2017/18 CBP	Medium	$9,500,000.00	0%		3	$0	$0	$9,500,000	$0	$0	$0	$0	$0	$0	$0
EKRA Runway Extension Stage 2	From 2017/18 CBP	Medium	$9,500,000.00	0%		4	$0	$0	$0	$9,500,000	$0	$0	$0	$0	$0	$0
EKRA Airport Precinct Sign Improvement	From 2017/18 CBP	Short	$10,000.00	0%		1	$10,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
EKRA CCTV & Phone Upgrade Part 1	From 2017/18 CBP	Short	$37,000.00	25%		1	$37,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
EKRA CCTV & Phone Upgrade Part 2	From 2017/18 CBP	Medium	$50,000.00	0%		2	$0	$50,000	$0	$0	$0	$0	$0	$0	$0	$0
EKRA RPT Bay 3 Lighting Upgrade	From 2017/18 CBP	Short	$100,000.00	50%		1	$100,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
EKRA Depot Replacement Investigation	From 2017/18 CBP	Medium	$10,000.00	100%		4	$0	$0	$0	$10,000	$0	$0	$0	$0	$0	$0
EKRA Additional Car Park Part 1	From 2017/18 CBP	Short	$215,000.00	100%		1	$215,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
EKRA Additional Car Park Part 2	From 2017/18 CBP	Medium	$250,000.00	0%		2	$0	$250,000	$0	$0	$0	$0	$0	$0	$0	$0
EKRA Security Fence Upgrade Part 1	From 2017/18 CBP	Short	$50,000.00	20%		1	$50,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
EKRA Security Fence Upgrade Part 2	From 2017/18 CBP	Medium	$50,000.00	20%		2	$0	$50,000	$0	$0	$0	$0	$0	$0	$0	$0
EKRA Security Fence Upgrade Part 3	From 2017/18 CBP	Medium	$50,000.00	20%		3	$0	$0	$50,000	$0	$0	$0	$0	$0	$0	$0
EKRA Security Fence Upgrade Part 4	From 2017/18 CBP	Medium	$50,000.00	20%		4	$0	$0	$0	$50,000	$0	$0	$0	$0	$0	$0
EKRA Taxiway F & G upgrade & GA Apron East & West Upgrade Part 1	From 2017/18 CBP	Short	$50,000.00	25%		1	$50,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
EKRA Taxiway F & G upgrade & GA Apron East & West Upgrade Part 2	From 2017/18 CBP	Medium	$80,000.00	25%		4	$0	$0	$0	$80,000	$0	$0	$0	$0	$0	$0
EKRA Terminal Aircondition Plant Replacement	From 2017/18 CBP	Short	$240,000.00	100%		1	$240,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Airport Plant Replacement Part 1	From 2017/18 CBP	Medium	$300,775.00	100%		2	$0	$300,775	$0	$0	$0	$0	$0	$0	$0	$0
Airport Plant Replacement Part 2	From 2017/18 CBP	Medium	$213,003.00	100%		3	$0	$0	$213,003	$0	$0	$0	$0	$0	$0	$0
Airport Plant Replacement Part 3	From 2017/18 CBP	Medium	$71,372.00	100%		4	$0	$0	$0	$71,372	$0	$0	$0	$0	$0	$0
EKRA Explosives Trace Equipment Replacement	From 2017/18 CBP	Short	$165,000.00	100%		1	$165,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Upgrade Power Supply to Terminal		Short	$118,000.00	100%		1	$118,000	$0	$0	$0	$0	$0	$0	$0	$0	$0

Table 29: 10 Year Forward Capital Works Plan (to be updated to align with Master Plan)[22]

[22] Note that Years 5 to 10 to be developed as part of the Airport LTFP Development

Appendix C. 50 Year Expenditure Profile utilised in the Renewal Model

Asset Set No.	Year No. / Asset Set Name	1 2017	2 2018	3 2019	4 2020	5 2021	6 2022	7 2023	8 2024	9 2025	10 2026	11 2027	12 2028	13 2029	14 2030	15 2031	16 2032	17 2033	18 2034	19 2035	20 2036
1	R - Long Life Structures				10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
2	R - Short Life Structures					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
3	R - Roof Cladding					15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
4	R - Mechanical Services	240,000				30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
5	R - Fit Out					30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
6	Furniture					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
7	IT Equipment	9,250				7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
8	Mobile Plant		300,775	213,003	71,372	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
9	Fixed Plant	50,000				25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
10	Security Screening Equipment	165,000				25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
11	Navigational Aids					100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
12	Baggage Handling Equipment					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
13	Miscellaneous Equipment					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
14	Sealed Road Kerb					5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
15	Culverts					3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
16	Headwalls					3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
17	Pits					3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
18	Pipes					3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
19	Open Unlined Drains					4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
20	Brick Paved					5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
21	Concrete					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
22	Runway Pavement					20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
23	Runway Seal					125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000	125,000
24	Taxiway Pavement			456,000	456,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
25	Taxiway Seal			684,000	684,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
26	RPT Apron Pavement					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
27	RPT Apron Seal					25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
28	GA Apron Pavement			684,000	684,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
29	GA Apron Seal			1,026,000	1,026,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
30	Carpark Pavement					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
31	Carpark Seal					25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
32	Road Pavement					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
33	Road Seal					20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
34	Waste Water System					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
35	Water Supply					10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
36	Fencing - Security	10,000	10,000	10,000	10,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
37	Fencing - Stock Proof - 1.2m					5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
38	Fence Access - Stock Gates					2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
39	Fence Access - Electric Security					2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
40	AS40																				
	Annual Total All Asset Sets	474,250	310,775	3,073,003	2,941,372	762,000	762,000	762,000	762,000	762,000	762,000	762,000	762,000	762,000	762,000	762,000	762,000	762,000	762,000	762,000	762,000
	Total Exp sets 1 - 20 for 50 Years	19,367,400																			
	Total Exp sets 21 - 40 for 50 Years	22,484,000																			

Table 30: 50 Year Expenditure Profile Utilised in the Renewal Model (Note: Only Years 1 - 20 shown, Years 21 to 50 the same as Year 20)

Appendix D. Individual Asset Set Tables

10.0 Asset Summaries

10.1 Freehold Land

Record No	Asset ID	Location Number	Lot Number	Street	Title Number	Folio	Volume	Area	Land Description	Land Value 1/07/2013
1	LB388		Lot 322	Laine Jones Drive					East Kimberley Regional Airport Land	3,000
2	LB384		Lot 310	Dusty Rankin Drive		222	2095	1,033.0m²	East Kimberley Regional Airport Land	110,000
3	LB390		Lot 318	Laine Jones Drive		208	2095	4,908.0m²	East Kimberley Regional Airport Land	270,000
4	LB389		Lot 312	Laine Jones Drive		202	2095	9,621.0m²	East Kimberley Regional Airport Land	415,000
5	LB382		Lot 302	Dusty Rankin Drive		214	2095	1,636.0m²	East Kimberley Regional Airport Land	425,000
6	LB383		Lot 311	Laine Jones Drive		201	2095	25,364.0m²	East Kimberley Regional Airport Land	634,000
7	LB381		Lot 200	Peter Reid Drive (Airport Land)		199	2760	2,573,212.0m²	East Kimberley Regional Airport Land	2,700,000
8				New Land Acquisition North of the runway					East Kimberley Regional Airport Land	TBA
9				New Land Acquisition North-east of the Runway 30 threshold					East Kimberley Regional Airport Land	TBA
10				New Land Acquisition South-east of the Runway 30 threshold					East Kimberley Regional Airport Land	TBA
11				South of the airport site boundary (Highway frontage)					East Kimberley Regional Airport Land	TBA
12				West of the airport site					East Kimberley Regional Airport Land	TBA

Table 31: Detailed List of Freehold Land

10.2 Buildings

								Total = 11,594,359	Long Life	Short Life	Roof	Mech Services	Fit Out
Record No	Asset ID	Building Name	Building Location/Address	Asset Class	Hierarchy	Floor Area m²	Renewal Unit Rate	Renewal Value	65%	65%	5%	5%	25%
1	LB343 A	Terminal Building (building floor area)	Victoria Hwy, Kununurra WA 6743	Buildings	Regional Buildings	1,606.0	4,479.0	7,193,274	4,675,628	0	359,664	359,664	1,798,319
2	LB343 B	Terminal Building (covered areas)	Victoria Hwy, Kununurra WA 6743	Buildings	Regional Buildings	1,175.5	541.0	635,946	413,365	0	31,797	31,797	158,986
3	LB368	Administration Building	Victoria Hwy, Kununurra WA 6745	Buildings	Regional Buildings	485.0	4,479.0	2,172,315	1,412,005	0	108,616	108,616	543,079
4	LB344 A	Patient Transfer - Main Building	Victoria Hwy, Kununurra WA 6746	Buildings	Regional Buildings	50.0	3,051.0	152,550	0	99,158	7,628	7,628	38,138
5	LB344 B	Patient Transfer - Covered Area	Victoria Hwy, Kununurra WA 6746	Buildings	Regional Buildings	101.0	541.0	54,641	0	35,517	2,732	2,732	13,660
6	LB399	Freight Shed	Victoria Hwy, Kununurra WA 6747	Buildings	Regional Buildings	168.0	554.0	93,072	86,424	0	6,648	0	0
7	LB398	Cool Room Shed Storage Shed	Victoria Hwy, Kununurra WA 6748	Buildings	Regional Buildings	38.0	1,410.0	53,580	49,753	0	3,827	0	0
8	LB400	Paint Shed	Victoria Hwy, Kununurra WA 6749	Buildings	Regional Buildings	50.0	541.0	27,050	0	25,118	1,932	0	0
9	LB396 A	Airport Depot Workshop (Main Building)	Victoria Hwy, Kununurra WA 6750	Buildings	Regional Buildings	264.0	1,410.0	372,240	241,956	0	18,612	18,612	93,060
10	LB396 B	Airport Depot Workshop (Covered Area)	Victoria Hwy, Kununurra WA 6751	Buildings	Regional Buildings	61.0	436.0	26,596	0	24,696	1,900	0	0
11		Airport House	Victoria Hwy, Kununurra WA 6751	Buildings	Regional Buildings	195.0	2,591.0	505,245	0	328,409	25,262	25,262	126,311
12	LB397	Fire Fighting Shed	Victoria Hwy, Kununurra WA 6753	Buildings	Regional Buildings	50.0	541.0	27,050	0	25,118	1,932	0	0
13	LB454	Depot Plant Shed	Victoria Hwy, Kununurra WA 6753	Buildings	Regional Buildings	432.0	650.0	280,800	0	260,743	20,057	0	0
14	LB173	Depot Transportable Ablutions	Victoria Hwy, Kununurra WA 6753	Buildings	Regional Buildings	4.0	5,100.0	20,400	0	13,958	1,074	0	5,368
15		New Terminal Extension	Victoria Hwy, Kununurra WA 6754	Buildings	Regional Buildings	894	4,500	4,023,000	2,614,950	0	201,150	201,150	1,005,750

Table 32: Detailed List of Buildings

10.3 Furniture & Equipment

Record No	Asset ID	Asset Group	Asset Name	Location/Address	Renewal Value	Condition
1	FE580	Furniture	2 X 881MM REMOVABLE WIDE BOLLARDS - EKRA	EKRA - KUNUNURRA AIRPORT	3,150	3
2	FE578	Furniture	3 X 1.5M PARK BENCHES WITH ALUMINIUM ANODISED BATTENS - EKRA	EKRA - KUNUNURRA AIRPORT	5,670	5
3	FE579	Furniture	4 X 881MM WIDE SUBSURFACE BOLLARDS - EKRA	EKRA - KUNUNURRA AIRPORT	5,040	3
4	FE577	Furniture	4 X 1.5M PARK SEATS WITH ALUMINIUM ANODISED ARMS AND BATTENS - EKRA	EKRA - KUNUNURRA AIRPORT	7,560	5
5	FE653	Furniture	Coffee vending Machine - Azkoyen- EKRA **(in storage)**	EKRA - KUNUNURRA AIRPORT	6,300	7
6	FE574	Furniture	240LT SOLID ALUMINIUM BIN FRAME-EKRA	EKRA - KUNUNURRA AIRPORT	2,100	7
7	FE652	Furniture	Food vending Machine - Crane - EKRA	EKRA - KUNUNURRA AIRPORT	7,350	7
8	FE651	Furniture	Drinks vending Machine - Royal Vendors - EKRA	EKRA - KUNUNURRA AIRPORT	7,350	7
9	FE605	Furniture	Office Chairs (3) Single Door Locker (1) & Pigeonhole Unit-EKRA	EKRA - KUNUNURRA AIRPORT	630	5
10	FE584	Furniture	4 X OTTOMAN STYLE CURVED SECTION LOUNGERS UPHOLSTERED - EKRA	EKRA - KUNUNURRA AIRPORT	4,620	3
11	FE604	Furniture	Blue Plastic Large Lockers (12) - EKRA	EKRA - KUNUNURRA AIRPORT	4,410	3
12	FE583	Furniture	8 X OTTOMAN STYLE STRAIGHT SECTION LOUNGERS UPHOLSTERED - EKRA	EKRA - KUNUNURRA AIRPORT	9,240	3
13	FE623	Furniture	OzLoka OL-800 Blue Heavy Duty Plastic Locker - EKRA	EKRA - KUNUNURRA AIRPORT	4,778	3
14	FE565	Furniture	PRIVATE LOUNGE FURNITURE & EQUIPMENT - EAST KIMBERLEY REGIONAL AIRPORT	EKRA - KUNUNURRA AIRPORT	10,185	4
15	FE602	Furniture	Tango 2.5 Seaters (3) Tango Modular Chairs(3) Stainless Steel Drum Tables(3)-E	EKRA - KUNUNURRA AIRPORT	8,505	4
16	FE566	Furniture	DEPARTURE HALL FURNITURE & EQUIPMENT - EKRA	EKRA - KUNUNURRA AIRPORT	13,125	6
17	FE569	Furniture	MEETING ROOM FURNITURE - EKRA	EKRA - KUNUNURRA AIRPORT	9,188	7
18	FE601	Furniture	Curve Lounge Seating - 4 Straight & 4 Curve (12/13) EKRA	EKRA - KUNUNURRA AIRPORT	9,240	3
19	FE582	Furniture	13 X STAINLESS STEEL BEAM SEATS (NO UPHOLSTERY) - AIRPORT	EKRA - KUNUNURRA AIRPORT	14,333	3
20	FE519	Furniture	4 X LG 42 FULL HD LCD COMMERCIAL GRADE TELEVISIONS & ACCESS - EKRA	EKRA - KUNUNURRA AIRPORT	5,040	5
21	FE624	Furniture	Simpson Eziset Washing Machine (12/13) EKRA **(Replaced 2016/17)**	EKRA - KUNUNURRA AIRPORT	715	0
22	FE625	Furniture	LG Fridge & Freezer (12/13)- EKRA	EKRA - KUNUNURRA AIRPORT	1,320	4
23	FE576	IT Equipment	MICROSOFT WINDOWS SERVER ENTERPRISE LICENSE/SOFTWARE ASSURANCE PACK - EK AIRPORT	EKRA - KUNUNURRA AIRPORT	1,319	3
24	FE661	IT Equipment	HP Computers (x4) HP Elitebook Laptop (x1) HP Hard drive (Proliant DL360) and	EKRA - KUNUNURRA AIRPORT	10,290	4
25	FE575A	IT Equipment	Installation of Wifi and Internet Security System (12/13)	EKRA - KUNUNURRA AIRPORT	2,082	3
26	FE00200	Furniture	Printer - APEOSPORT - IV C3373 (S#706471) Printer - EKRA	EKRA - KUNUNURRA AIRPORT	7,150	6
27	FE679	Furniture	Phone System (12/13) - EKRA **(Upgraded 2016/17)**	EKRA - KUNUNURRA AIRPORT	8,000	0
28	FE581	Furniture	13 X STAINLESS STEEL BEAM SEATS WITH UPHOLSTERED SEAT AND BACK PADS - EKRA	EKRA - KUNUNURRA AIRPORT	19,110	4
29	FE603	Furniture	Carriage Luggage Trolleys (20) - (12/13) EKRA	EKRA - KUNUNURRA AIRPORT	9,450	7
30	FE567	Furniture	CAFE AREA FURNITURE - EAST KIMBERLBEY REGIONAL AIRPORT	EKRA - KUNUNURRA AIRPORT	15,750	4
31	FE520	Furniture	HAKO B70CL 650MM FLOOR SCRUBBER AND ACCESSORIES - EKRA	EKRA - KUNUNURRA AIRPORT	13,125	7
32	FE521	Furniture	12X WALL MOUNTED FLIGHT INFORMATION DISPLAY BOARDS AND ACCESSORIES - KNX AIRPORT	EKRA - KUNUNURRA AIRPORT	8,663	7
33	FE585	Furniture	12 X ECO RUBBISH BINS WITH STAINLESS STEEL FINISH AND REMOVABLE INTERNAL LINERS	EKRA - KUNUNURRA AIRPORT	9,450	7
34	FE568	Furniture	OUTDOOR ALFRESCO AREA FURNITURE - EKRA	EKRA - KUNUNURRA AIRPORT	11,025	6
35	FE662	IT Equipment	Procurve Switch Computer and UPS (Eaton 9130)	EKRA - KUNUNURRA AIRPORT	14,700	6
36	FE570	Furniture	OFFICE FURNITURE & EQUIPMENT - EAST KIMBERLEY REGIONAL AIRPORT	EKRA - KUNUNURRA AIRPORT	25,463	4
37	FE692	Furniture	Public Address SystemAmpacEV3000- 12/13	EKRA - KUNUNURRA AIRPORT	21,000	8
38		Furniture	New Terminal Furuniture & Equipment	EKRA - KUNUNURRA AIRPORT	300,000	0

Table 33: Detailed List of Furniture & Equipment[23]

[23] Condition Ratings provided by Shire of Kununurra staff August 2017

10.4 Plant & Equipment

Record No	Asset ID	Asset Group for Asset Management	Asset Group From Asset Register	Asset Name	Location/Address	Renewal Value	Condition
1	P698	Mobile Plant	Other Equipment	SUPERIOR V19 ROTARY SLASHER - EKRA	EKRA - KUNUNURRA AIRPORT	39,900	7
2	P125	Mobile Plant	Other Equipment	Howard EHD300 Slasher - (EKRA)	EKRA - KUNUNURRA AIRPORT	23,625	3
3	P436	Fixed Plant	Other Equipment	Kubota Generator SQ3300 - Reclaim Baggage Carousel EKRA	EKRA - KUNUNURRA AIRPORT	21,000	4
4	P394	Mobile Plant	Light Plant	WY26388 - John Deere 1023E Tractor Mower	EKRA - KUNUNURRA AIRPORT	22,050	6
5	P119	Mobile Plant	Light Plant	WY25490-Toyota Hilux SR Utility 2WD (EKRA - Airport Operations Manager)	EKRA - KUNUNURRA AIRPORT	41,820	4
6	P741	Fixed Plant	Other Equipment	Stand-by Generator - FG WilsonP55-2 - EKRA	EKRA - KUNUNURRA AIRPORT	36,750	5
7	P127	Mobile Plant	Other Equipment	Flex Wing Slasher PIRANHA 5500 (EKRA)	EKRA - KUNUNURRA AIRPORT	38,325	5
8	P128	Mobile Plant	Heavy Plant	WY26095 - John Deere 6534 Tractor with 563 Loader (EKRA)	EKRA - KUNUNURRA AIRPORT	123,600	5
9	P760	Miscellaneous Equipment	Other Equipment	Under counter washer washtech UD (12/13)	EKRA - KUNUNURRA AIRPORT	3,520	2
10	P745	Fixed Plant	Other Equipment	2 doorChiller / Freezer Fago rAF1602 Mix Kununurra Airport Café	EKRA - KUNUNURRA AIRPORT	8,800	2
11	P651	Mobile Plant	Other Equipment	HAUS HOWARD EHD210 SLASHER	EKRA - KUNUNURRA AIRPORT	15,225	6
12	P749	Miscellaneous Equipment	Other Equipment	Floor Polisher Rotobic G-Force (12/13)	EKRA - KUNUNURRA AIRPORT	2,310	5
13	P750	Miscellaneous Equipment	Other Equipment	Floor Polisher Rotobic Fusion	EKRA - KUNUNURRA AIRPORT	2,310	5
14	P758	Miscellaneous Equipment	Other Equipment	Floor Sweeper Hako Wizzard 44 (12/13)	EKRA - KUNUNURRA AIRPORT	3,780	10
15	P755	Miscellaneous Equipment	Other Equipment	IceMaker Hoshizakik M3A (12/13)	EKRA - KUNUNURRA AIRPORT	1,890	4
16	P139	Fixed Plant	Medium Plant	Generator - Dorman 6LB3 (Serial # 86704) - EKRA 13/14	EKRA - KUNUNURRA AIRPORT	68,250	3
17	P140	Fixed Plant	Medium Plant	Generator - Dorman 6LB3 (Serial # - 86707) - EKRA 13/14	EKRA - KUNUNURRA AIRPORT	68,250	3
18	P487	Mobile Plant	Heavy Plant	WY15795 Bitumen Emulsion Sprayer mounted on Trailer (Black) - Knx Airport	EKRA - KUNUNURRA AIRPORT	11,025	5
19	FE444	Security Screening Equipment	Other Equipment	Rapiscan 622XR - WIN230 X Ray Security Machine - EKRA	EKRA - KUNUNURRA AIRPORT	36,750	5*
20	P700	Mobile Plant	Heavy Plant	SWEEPSTER ROAD BROOM WY7524 (Plant #P348)	EKRA - KUNUNURRA AIRPORT	36,750	4
21	P717	Security Screening Equipment	Other Equipment	OptEX Desktop Explosives Trace Detector - EKRA	EKRA - KUNUNURRA AIRPORT	36,750	5*
22	P720	Security Screening Equipment	Other Equipment	OptEX Desktop Explosives Trace Detector Kununurra Airport	EKRA - KUNUNURRA AIRPORT	36,750	5*
23	FE445	Security Screening Equipment	Other Equipment	Metor 300 EMD Walk through Metal Detector - EKRA	EKRA - KUNUNURRA AIRPORT	26,250	7
24	P392	Mobile Plant	Other Equipment	Graco 200HS Linemarker with Graco Linedriver HD (Knx Airport & Knx Depot)	EKRA - KUNUNURRA AIRPORT	28,350	8
25	FE563	Security Screening Equipment	Other Equipment	RAPISCAN 620DV PASSENGER SCREENING XRAY MACHINE AND ASSOCIATED ROLLER BEDS - EKR	EKRA - KUNUNURRA AIRPORT	63,000	6
26	P126	Mobile Plant	Heavy Plant	WY16422 -Sewell TB2000E Sweeper (EKRA)	EKRA - KUNUNURRA AIRPORT	52,500	5
27	P393	Mobile Plant	Heavy Plant	SealMaster Crack Pro 125 Gallon	EKRA - KUNUNURRA AIRPORT	63,000	4
28	FE743	Baggage Handling Equipment	Other Equipment	Reclaim carousel -EKRA	EKRA - KUNUNURRA AIRPORT	116,438	4
29	P740	Security Screening Equipment	Other Equipment	Screening Machine Rapiscan - MVXR5000 - EKRA	EKRA - KUNUNURRA AIRPORT	566,500	5
30	P742	Baggage Handling Equipment	Other Equipment	Counters Conveyors make-up and reclaim carousels Handling System - EKRA	EKRA - KUNUNURRA AIRPORT	504,563	4
31	P753	Miscellaneous Equipment	Other Equipment	Air Curtain TecoPNN K440AY-1 (12/13)	EKRA - KUNUNURRA AIRPORT	6,300	3
32	P666	Miscellaneous Equipment	Other Equipment	LINELAZER III 200HS - EKRA	EKRA - KUNUNURRA AIRPORT	15,750	4
33	P756	Miscellaneous Equipment	Other Equipment	Security Device Astaro (12/13)	EKRA - KUNUNURRA AIRPORT	1,575	0
34	P762	Miscellaneous Equipment	Other Equipment	Stainless steel 2 filter exhaust hood (12/13)	EKRA - KUNUNURRA AIRPORT	2,625	2
35	P761	Miscellaneous Equipment	Other Equipment	Stainless steel bench sink (12/13)	EKRA - KUNUNURRA AIRPORT	4,950	2
36	P665	Mobile Plant	Other Equipment	LINE LAZER LINE DRIVER INCLUDING TOW HITCH CONVERSION	EKRA - KUNUNURRA AIRPORT	14,700	4
37	P757	Miscellaneous Equipment	Other Equipment	Shredder Intimus 600 (12/13)	EKRA - KUNUNURRA AIRPORT	2,625	1
38	P748	Miscellaneous Equipment	Other Equipment	Spray wash nozzle (12/13)	EKRA - KUNUNURRA AIRPORT	1,575	4
39	P751	Miscellaneous Equipment	Other Equipment	Trolley Rubbermaid 9T78 (12/13)	EKRA - KUNUNURRA AIRPORT	1,575	7
40	P699	Miscellaneous Equipment	Other Equipment	SUPPLY & INSTALL VHF RADIO AIRPORT WEATHER STATION - EKRA	EKRA - KUNUNURRA AIRPORT	2,730	6
41	P754	Miscellaneous Equipment	Other Equipment	Forklift Attachment MCIND Pallet Fork	EKRA - KUNUNURRA AIRPORT	2,625	8

Record No	Asset ID	Asset Group for Asset Management	Asset Group From Asset Register	Asset Name	Location/Address	Renewal Value	Condition
42		Navigational Aids		Pilot Activated Lighting x 124	EKRA - KUNUNURRA AIRPORT	600,000	3
43		Navigational Aids		New - Electrical Cabling for Runway Lighting	EKRA - KUNUNURRA AIRPORT	832,000	0
44		Navigational Aids		New - Pilot Activated Lighting x 80	EKRA - KUNUNURRA AIRPORT	360,000	0
45		Navigational Aids		New - Elevated Runway Edge Lighting	EKRA - KUNUNURRA AIRPORT	104,000	0
46		Navigational Aids		New - turning Node Lights	EKRA - KUNUNURRA AIRPORT	20,000	0
47		Navigational Aids		New - 2 x single Sided PAPI	EKRA - KUNUNURRA AIRPORT	120,000	0
48		Navigational Aids		New - Elevated Taxiway Edge Lighting & Cabling	EKRA - KUNUNURRA AIRPORT	221,000	0
49		Navigational Aids		T-Vasis - Fly up Box x 6, Bar x8, Fly Down Box x 6 (replaced by single sided PAPI, not in future model	EKRA - KUNUNURRA AIRPORT	2,900,000	5
50		Navigational Aids		Illuminated Wind Direction Indicator (Primary)	EKRA - KUNUNURRA AIRPORT	45,000	3
51		Navigational Aids		Illuminated Wind Direction Indicator (Secondary)	EKRA - KUNUNURRA AIRPORT	45,000	3
52		Miscellaneous Equipment		Terminal x 3	EKRA - KUNUNURRA AIRPORT	55,000	2
53		Miscellaneous Equipment		Patient Transfer Area x 1	EKRA - KUNUNURRA AIRPORT	19,000	2
54		Navigational Aids		Gable Markers. Fibre Glass 3m Long x 40	EKRA - KUNUNURRA AIRPORT	40,000	3
55		Navigational Aids		New - Gable Markers	EKRA - KUNUNURRA AIRPORT	6,000	0
56		Navigational Aids		Hazard Cones. Red and white stripe x 30	EKRA - KUNUNURRA AIRPORT	7,000	3
57		Navigational Aids		Permanent Survey Markers x 8	EKRA - KUNUNURRA AIRPORT	1,900	3
58		Miscellaneous Equipment		Car Park Lighting 8m Poles x 12	EKRA - KUNUNURRA AIRPORT	90,000	2
59		Miscellaneous Equipment		Car Park Lighting 10m Poles x 1	EKRA - KUNUNURRA AIRPORT	18,000	2
60		Fixed Plant		Fire Service - Diesel Pump x 1	EKRA - KUNUNURRA AIRPORT	1	2
61		Fixed Plant		Fire Service - Electric Pump x 1	EKRA - KUNUNURRA AIRPORT	1	2
62		Fixed Plant		Fire Service - Electric Primer Pump x 1	EKRA - KUNUNURRA AIRPORT	1	2
63		Fixed Plant		Fire Service - Valves and Monitors	EKRA - KUNUNURRA AIRPORT	1	2
64		Fixed Plant		Fire Service - 64 KL Corrigated Iron Backup Tanks (Above ground) x 2	EKRA - KUNUNURRA AIRPORT	320,000	2
65		Fixed Plant		New - 1 ha Solar Farm ~ 1mW output	EKRA - KUNUNURRA AIRPORT	2,500,000	0
66		Fixed Plant		New - Sewer Facility of overnight RPT	EKRA - KUNUNURRA AIRPORT	50,000	0

Table 34: Detailed List of Plant & Equipment[24] [25] [26]

[24] Condition Ratings provided by Shire of Kununurra staff August 2017
[25] Items marked * to be replaced by December 2017
[26] Note, Record 49, T-Vasis value of $2.9m may be an error and to be confirmed by the 2017 valuation.

10.5 Infrastructure – Roads (Kerb)

Record No	Asset ID	Asset Name	Location/Address	Length of Kerb	Asset Set	Renewal Value	Condition
1	1	Kerb Front of Terminal East	EKRA - KUNUNURRA AIRPORT	86.2m	Sealed Road Kerb	10,345	2
2	2	Kerb Front of Terminal Centre	EKRA - KUNUNURRA AIRPORT	15.0m	Sealed Road Kerb	1,800	2
3	3	Kerb Front of Terminal West	EKRA - KUNUNURRA AIRPORT	97.0m	Sealed Road Kerb	11,640	2
4	4	Kerb Bin Enclosure West of Terminal	EKRA - KUNUNURRA AIRPORT	45.0m	Sealed Road Kerb	5,400	2
5	5	Kerb North Carpark Island	EKRA - KUNUNURRA AIRPORT	194.0m	Sealed Road Kerb	23,280	2
6	6	Kerb North Carpark Island - Centre	EKRA - KUNUNURRA AIRPORT	30.0m	Sealed Road Kerb	3,600	2
7	7	Island 1 Carpark NE	EKRA - KUNUNURRA AIRPORT	16.5m	Sealed Road Kerb	1,980	2
8	8	Island 2 Carpark SE	EKRA - KUNUNURRA AIRPORT	27.0m	Sealed Road Kerb	3,240	2
9	9	Island 3 Carpark NW	EKRA - KUNUNURRA AIRPORT	19.0m	Sealed Road Kerb	2,280	2
10	10	Island 4 Carpark SW	EKRA - KUNUNURRA AIRPORT	17.0m	Sealed Road Kerb	2,040	2
11	11	Northern Carpark SW Corner	EKRA - KUNUNURRA AIRPORT	74.0m	Sealed Road Kerb	8,880	2
12	12	West Thin Island Northern Carpark	EKRA - KUNUNURRA AIRPORT	64.0m	Sealed Road Kerb	7,680	2
13	13	Northern Carpark SE Corner	EKRA - KUNUNURRA AIRPORT	112.0m	Sealed Road Kerb	13,440	2
14	14	Southern Carpark Northern Island	EKRA - KUNUNURRA AIRPORT	253.0m	Sealed Road Kerb	30,360	2
15	15	Southern Carpark Central Island	EKRA - KUNUNURRA AIRPORT	251.0m	Sealed Road Kerb	30,120	2
16	16	Southern Carpark Southern Kerbing	EKRA - KUNUNURRA AIRPORT	279.0m	Sealed Road Kerb	33,480	2
17	17	Kerb Cnr Exit Road & Hwy	EKRA - KUNUNURRA AIRPORT	381.0m	Sealed Road Kerb	45,720	2
18	18	Kerb Eastern side of Eastern Access Road	EKRA - KUNUNURRA AIRPORT	35.0m	Sealed Road Kerb	4,200	2
19	19	Kerb NW side of Eastern Access Road	EKRA - KUNUNURRA AIRPORT	16.0m	Sealed Road Kerb	1,920	2
20	20	Kerb Northern Side of X Road	EKRA - KUNUNURRA AIRPORT	92.0m	Sealed Road Kerb	11,040	2
21	21	Kerb Northern Side of X Road	EKRA - KUNUNURRA AIRPORT	81.0m	Sealed Road Kerb	9,720	2
22	22	Kerb Northern Side of X Road	EKRA - KUNUNURRA AIRPORT	35.0m	Sealed Road Kerb	4,200	2
23	23	Kerb Eastern Side of Exit Road	EKRA - KUNUNURRA AIRPORT	145.0m	Sealed Road Kerb	17,400	2
24	24	Kerb Western side of Entrance Road	EKRA - KUNUNURRA AIRPORT	634.0m	Sealed Road Kerb	76,080	2
25	25	Kerb Northern Side of Y Road	EKRA - KUNUNURRA AIRPORT	351.0m	Sealed Road Kerb	42,120	2
26	26	Kerb NW side of Z Road	EKRA - KUNUNURRA AIRPORT	189.0m	Sealed Road Kerb	22,680	2
27	27	Kerb SW side of Z Road	EKRA - KUNUNURRA AIRPORT	196.0m	Sealed Road Kerb	23,520	2
28		New Carpark Kerbing	EKRA - KUNUNURRA AIRPORT	200.0m	Sealed Road Kerb	24,000	0

Table 35: Detailed List of Kerbing

10.6 Infrastructure – Drainage

Record No	Asset ID	Asset Name	Location/Address	Length of Pipe	Asset Set	Renewal Value	Condition
1		Culvert 1	EKRA - KUNUNURRA AIRPORT	25.0m	Culverts	21,250	3
2		Headwall 1	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	5
3		Headwall 2	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	5
4		Culvert 2	EKRA - KUNUNURRA AIRPORT	26.0m	Culverts	22,100	3
5		Headwall 3	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	4
6		Headwall 4	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	4
7		Culvert 3	EKRA - KUNUNURRA AIRPORT	45.0m	Culverts	38,250	3
8		Headwall 5	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	4
9		Headwall 6	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	4
10		Culvert 4	EKRA - KUNUNURRA AIRPORT	9.0m	Culverts	7,650	5
11		Culvert 5	EKRA - KUNUNURRA AIRPORT	7.0m	Culverts	5,950	1
12		Headwall 7	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	1
13		Headwall 8	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	1
14		Culvert 6	EKRA - KUNUNURRA AIRPORT	7.0m	Culverts	5,950	1
15		Headwall 9	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	1
16		Headwall 10	EKRA - KUNUNURRA AIRPORT		Headwalls	1,500	1
17		Car Park Pit 1	EKRA - KUNUNURRA AIRPORT		Pits	3,500	4
18		Car Park Pit 2	EKRA - KUNUNURRA AIRPORT		Pits	3,500	4
19		Car Park Pit 3	EKRA - KUNUNURRA AIRPORT		Pits	3,500	4
20		Car Park Pit 4	EKRA - KUNUNURRA AIRPORT		Pits	3,500	4
21		Car Park Pit 5	EKRA - KUNUNURRA AIRPORT		Pits	3,500	4
22		Car Park Pit 6	EKRA - KUNUNURRA AIRPORT		Pits	3,500	4
23		Car Park Pit 7	EKRA - KUNUNURRA AIRPORT		Pits	3,500	4
24		Car Park Pit 8	EKRA - KUNUNURRA AIRPORT		Pits	3,500	4
25		Car Park 450mm Pipe	EKRA - KUNUNURRA AIRPORT	400.0m	Pipes	340,000	3
26		Airside Eastern Apron Pit 1	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
27		Airside Eastern Apron Pit 2	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
28		Airside Eastern Apron Pit 3	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
29		Airside Eastern Apron Pit 4	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
30		Airside Eastern Apron Pit 5	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2

Record No	Asset ID	Asset Name	Location/Address	Length of Pipe	Asset Set	Renewal Value	Condition
31		Airside Eastern Apron Pit 6	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
32		Airside Eastern Apron 450mm Pipe	EKRA - KUNUNURRA AIRPORT	300.0m	Pipes	255,000	2
33		Airside Western Apron Pit 1	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
34		Airside Western Apron Pit 2	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
35		Airside Western Apron Pit 3	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
36		Airside Western Apron Pit 4	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
37		Airside Western Apron Pit 5	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
38		Airside Western Apron Pit 6	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
39		Airside Western Apron Pit 7	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
40		Airside Western Apron Pit 8	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
41		Airside Western Apron Pit 9	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
42		Airside Western Apron Pit 10	EKRA - KUNUNURRA AIRPORT		Pits	3,500	2
43		Airside Western Apron 450mm Pipe	EKRA - KUNUNURRA AIRPORT	310.0m	Pipes	263,500	2
44		New Open unlined Drains (Runway Extension)	EKRA - KUNUNURRA AIRPORT	1,200.0m	Open Unlined Drains	36,000	0
45		New Dia 450mm Drains (Runway Extension)	EKRA - KUNUNURRA AIRPORT	10.0m	Pipes	8,500	0

Table 36: Detailed List of Infrastructure - Drainage

10.7 Infrastructure - Pathways

Record No	Asset ID	Asset Name	Location/Address	Area of Pathway	Asset Set	Renewal Value	Condition
1	2	Pathway at Front of Terminal East	EKRA - KUNUNURRA AIRPORT	86.2m²	Concrete	10,345	2
2	3	Pathway at Front of Terminal Centre	EKRA - KUNUNURRA AIRPORT	29.0m²	Concrete	3,480	2
3	4	Pathway at Front of Terminal West	EKRA - KUNUNURRA AIRPORT	48.0m²	Concrete	5,760	2
4	5	Carpark Triangle 1	EKRA - KUNUNURRA AIRPORT	21.0m²	Concrete	2,520	2
5	6	Carpark Triangle 2	EKRA - KUNUNURRA AIRPORT	28.0m²	Concrete	3,360	2
6	7	Carpark Triangle 3	EKRA - KUNUNURRA AIRPORT	15.0m²	Concrete	1,800	2
7	8	Carpark Concret Drainage Invert East	EKRA - KUNUNURRA AIRPORT	70.0m²	Concrete	8,400	2
8	9	Carpark Concret Drainage Invert West	EKRA - KUNUNURRA AIRPORT	50.0m²	Concrete	6,000	2
9	10	Pathway between Carparks	EKRA - KUNUNURRA AIRPORT	36.0m²	Concrete	4,320	2
10	11	Pathway between bays Southern Carpark	EKRA - KUNUNURRA AIRPORT	6.0m²	Concrete	720	2
11	12	Pathway ar Rear of Admin Buildng	EKRA - KUNUNURRA AIRPORT	77.0m²	Concrete	9,240	2
12	13	Concreate Area in baggage unload area	EKRA - KUNUNURRA AIRPORT	371.0m²	Concrete	44,520	2
13	14	Concrete Airside in front of office	EKRA - KUNUNURRA AIRPORT	246.5m²	Concrete	29,580	2
14	15	Departure Concrete - Airside	EKRA - KUNUNURRA AIRPORT	206.0m²	Concrete	24,720	2
15	16	Arrival Concrete West - Airside	EKRA - KUNUNURRA AIRPORT	39.0m²	Concrete	4,680	2
16	17	Arrival Concrete East - Airside	EKRA - KUNUNURRA AIRPORT	39.0m²	Concrete	4,680	2
17	18	Concrete Coolroom Shed Entrance - Airside	EKRA - KUNUNURRA AIRPORT	52.0m²	Concrete	6,240	2
18	19	Staff Carpark	EKRA - KUNUNURRA AIRPORT	7.0m²	Concrete	840	2
19	20	Patient Transfer Facility	EKRA - KUNUNURRA AIRPORT	289.0m²	Concrete	34,680	2
20	1	Brick Paved Area West End of Terminal	EKRA - KUNUNURRA AIRPORT	13.0m²	Brick Paved	1,820	5
21	2	Brick Paving in Front of Terminal	EKRA - KUNUNURRA AIRPORT	353.0m²	Brick Paved	49,420	5
22	3	Brick Paving to Baggage unload area	EKRA - KUNUNURRA AIRPORT	15.0m²	Brick Paved	2,100	5
23	4	Brick paving NE Car Park Corner	EKRA - KUNUNURRA AIRPORT	83.5m²	Brick Paved	11,690	5
24	5	Brick paving SE cnr Northern Carpark 1	EKRA - KUNUNURRA AIRPORT	16.3m²	Brick Paved	2,275	5
25	6	Brick paving SE cnr Northern Carpark 2	EKRA - KUNUNURRA AIRPORT	16.0m²	Brick Paved	2,240	5
26	7	Brick paving SE cnr Northern Carpark 3	EKRA - KUNUNURRA AIRPORT	53.0m²	Brick Paved	7,420	5
27	8	Brick paving thin Island south side of Northern Carpark	EKRA - KUNUNURRA AIRPORT	21.5m²	Brick Paved	3,010	5
28	10	Brick paving West side Island of Northern Carpark	EKRA - KUNUNURRA AIRPORT	16.0m²	Brick Paved	2,240	5
29	11	Brick paving NW Island Northern Carpark	EKRA - KUNUNURRA AIRPORT	55.4m²	Brick Paved	7,756	5
30	20	Centre Northern Island, Northern Carpark	EKRA - KUNUNURRA AIRPORT	9.0m²	Concrete	1,080	2
31	21	Airconditioning Unit Slab Northern Car Park	EKRA - KUNUNURRA AIRPORT	40.0m²	Concrete	4,800	2
32	22	Pedestrian Walkway Nothern Island, Northenr Carpark	EKRA - KUNUNURRA AIRPORT	1.0m²	Concrete	120	2

Table 37: Detailed List of Infrastructure - Pathways

10.8 Infrastructure – Airports

Record No	Asset ID	Asset Name	Location/Address	Area	Asset Set	Renewal Value	Condition
1		Airside Airport Formation	EKRA - KUNUNURRA AIRPORT	876,999.0m²	Airside Aerodrome Formation	17,539,980	4
2	1	RPT Apron Seal	EKRA - KUNUNURRA AIRPORT	10,859.0m²	RPT Apron Seal	1,411,670	1
3		RPT Apron Pavement	EKRA - KUNUNURRA AIRPORT	10,859.0m²	RPT Apron Pavement	553,809	1
4	2	GA Apron	EKRA - KUNUNURRA AIRPORT	34,558.0m²	GA Apron Seal	2,591,850	5
5		GA Apron Pavement	EKRA - KUNUNURRA AIRPORT	34,558.0m²	GA Apron Pavement	1,209,530	3
6	3	Private Aviation Apron Seal	EKRA - KUNUNURRA AIRPORT	11,265.0m²	GA Apron Seal	844,875	3
7		Private Aviation Apron Pavement	EKRA - KUNUNURRA AIRPORT	11,265.0m²	GA Apron Pavement	394,275	2
8	1	Taxiway C (West) Seal	EKRA - KUNUNURRA AIRPORT	6,809.0m²	Taxiway Seal	885,170	3
9		Taxiway C (West) Pavement	EKRA - KUNUNURRA AIRPORT	6,809.0m²	Taxiway Pavement	347,259	2
10	2	Taxiway C (East) Seal	EKRA - KUNUNURRA AIRPORT	11,146.0m²	Taxiway Seal	1,448,980	1
11		Taxiway C (East) Pavement	EKRA - KUNUNURRA AIRPORT	12,154.0m²	Taxiway Pavement	619,854	2
12	3	Taxiway B Seal	EKRA - KUNUNURRA AIRPORT	2,089.0m²	Taxiway Seal	271,570	4
13		Taxiway B Pavement	EKRA - KUNUNURRA AIRPORT	2,558.0m²	Taxiway Pavement	130,458	2
14		Taxiway A Seal	EKRA - KUNUNURRA AIRPORT	8,596.0m²	Taxiway Seal	1,117,480	2
15		Taxiway A Pavement	EKRA - KUNUNURRA AIRPORT	9,805.0m²	Taxiway Pavement	500,055	2
16		Taxiway F Seal	EKRA - KUNUNURRA AIRPORT	25,269.0m²	Taxiway Seal	3,284,970	4
17		Taxiway F Pavement	EKRA - KUNUNURRA AIRPORT	32,471.0m²	Taxiway Pavement	1,656,021	2
18		Taxiway G Seal	EKRA - KUNUNURRA AIRPORT	2,261.0m²	Taxiway Seal	293,930	5
19		Taxiway G Pavement	EKRA - KUNUNURRA AIRPORT	2,885.0m²	Taxiway Pavement	147,135	2
20		Runway Seal	EKRA - KUNUNURRA AIRPORT	68,129.0m²	Runway Seal	9,878,705	1
21		Runway Pavement	EKRA - KUNUNURRA AIRPORT	92,221.0m²	Runway Pavement	3,873,282	1
22	1	Carpark North Seal	EKRA - KUNUNURRA AIRPORT	2,613.0m²	Carpark Seal	39,195	7
23		Carpark North Pavement	EKRA - KUNUNURRA AIRPORT	2,613.0m²	Carpark Pavement	78,390	4
24		Carpark North Formation	EKRA - KUNUNURRA AIRPORT	2,613.0m²	Carpark Formation	39,195	1
25	2	Carpark South 1 Seal	EKRA - KUNUNURRA AIRPORT	1,323.0m²	Carpark Seal	19,845	6
26		Carpark South 1 Pavement	EKRA - KUNUNURRA AIRPORT	1,323.0m²	Carpark Pavement	39,690	3
27		Carpark South 1 Formation	EKRA - KUNUNURRA AIRPORT	1,323.0m²	Carpark Formation	19,845	1
28	3	Carpark South 2 Seal	EKRA - KUNUNURRA AIRPORT	1,273.0m²	Carpark Seal	19,095	6
29		Carpark South 2 Pavement	EKRA - KUNUNURRA AIRPORT	1,273.0m²	Carpark Pavement	38,190	3
30		Carpark South 2 Formation	EKRA - KUNUNURRA AIRPORT	1,273.0m²	Carpark Formation	19,095	1
31	4	Staff Carpark Seal	EKRA - KUNUNURRA AIRPORT	570.0m²	Carpark Seal	8,550	6
32		Staff Carpark Pavement	EKRA - KUNUNURRA AIRPORT	570.0m²	Carpark Pavement	17,100	3
33		Staff Carpark Formation	EKRA - KUNUNURRA AIRPORT	570.0m²	Carpark Formation	8,550	1

Record No	Asset ID	Asset Name	Location/Address	Area	Asset Set	Renewal Value	Condition
34	1	Terminal Road Part 1 Seal	EKRA - KUNUNURRA AIRPORT	383.0m²	Road Seal	5,745	5
35		Terminal Road Part 1 Pavement	EKRA - KUNUNURRA AIRPORT	383.0m²	Road Pavment	7,660	3
36		Terminal Road Part 1 Formation	EKRA - KUNUNURRA AIRPORT	383.0m²	Road Formation	3,830	1
37	2	Terminal Road Part 2 Seal	EKRA - KUNUNURRA AIRPORT	118.0m²	Road Seal	1,770	5
38		Terminal Road Part 2 Pavement	EKRA - KUNUNURRA AIRPORT	118.0m²	Road Pavment	2,360	3
39		Terminal Road Part 2 Formation	EKRA - KUNUNURRA AIRPORT	119.0m²	Road Formation	1,190	1
40	3	Terminal Road Part 3 Seal	EKRA - KUNUNURRA AIRPORT	447.0m²	Road Seal	6,705	5
41		Terminal Road Part 3 Pavement	EKRA - KUNUNURRA AIRPORT	447.0m²	Road Pavment	8,940	3
42		Terminal Road Part 3 Formation	EKRA - KUNUNURRA AIRPORT	447.0m²	Road Formation	4,470	1
43	4	Entrance Road Seal	EKRA - KUNUNURRA AIRPORT	1,271.0m²	Road Seal	19,065	5
44		Entrance Road Pavement	EKRA - KUNUNURRA AIRPORT	1,271.0m²	Road Pavment	25,420	3
45		Entrance Road Formation	EKRA - KUNUNURRA AIRPORT	1,271.0m²	Road Formation	12,710	1
46	5	Exit Road Road Seal	EKRA - KUNUNURRA AIRPORT	1,862.0m²	Road Seal	27,930	5
47		Exit Road Pavement	EKRA - KUNUNURRA AIRPORT	1,862.0m²	Road Pavment	37,240	3
48		Exit Road Formation	EKRA - KUNUNURRA AIRPORT	1,862.0m²	Road Formation	18,620	1
49	6	Subdivision Road West Seal	EKRA - KUNUNURRA AIRPORT	1,862.0m²	Road Seal	27,930	5
50		Subdivision Road West Pavement	EKRA - KUNUNURRA AIRPORT	1,862.0m²	Road Pavment	37,240	3
51		Subdivision Road West Formation	EKRA - KUNUNURRA AIRPORT	1,862.0m²	Road Formation	18,620	1
52	7	Subdivision Road East Seal	EKRA - KUNUNURRA AIRPORT	2,909.0m²	Road Seal	43,635	5
53		Subdivision Road East Pavement	EKRA - KUNUNURRA AIRPORT	2,909.0m²	Road Pavment	58,180	3
54		Subdivision Road East Formation	EKRA - KUNUNURRA AIRPORT	2,909.0m²	Road Formation	29,090	1
55	5	Service Area Seal	EKRA - KUNUNURRA AIRPORT	1,133.0m²	Carpark Seal	16,995	4
56		Service Area Pavement	EKRA - KUNUNURRA AIRPORT	1,133.0m²	Carpark Pavement	33,990	2
57		Service Area Formation	EKRA - KUNUNURRA AIRPORT	1,133.0m²	Carpark Formation	16,995	1
58		New - Lengthened Runway Seal (Additional 601m)	EKRA - KUNUNURRA AIRPORT	18,030.0m²	Runway Seal	2,614,350	0
59		New - Lengthened Runway Pavement (Additional 601m)	EKRA - KUNUNURRA AIRPORT	24,500.0m²	Runway Pavement	1,029,000	0
60		New - Lengthened Runway Formation (Additional 601m)	EKRA - KUNUNURRA AIRPORT	338,000.0m²	Airside Aerodrome Formation	6,760,000	0
61		New - Taxiway F Seal (widen from 10.5m to 15m = 1,336 x 4.5)	EKRA - KUNUNURRA AIRPORT	6,012.0m²	Taxiway Seal	781,560	0
62		New - Taxiway H (Old F) Seal (widen from 10.5m to 15m = 127 x 4.5)	EKRA - KUNUNURRA AIRPORT	572.0m²	Taxiway Seal	74,360	0
63		New - Taxiway G Seal (widen from 10.5m to 15m = 127 x 4.5)	EKRA - KUNUNURRA AIRPORT	572.0m²	Taxiway Seal	74,360	0
64		New - Taxiway A Pavement (widen pavement from 21m - 22m = 316 x 1.0)	EKRA - KUNUNURRA AIRPORT	316.0m²	Taxiway Pavement	16,116	0
65		New - Taxiway B Pavement (widen pavement from 21m - 22m = 95 x 1.0)	EKRA - KUNUNURRA AIRPORT	95.0m²	Taxiway Pavement	4,845	0
66		New - Taxiway F Pavement (widen pavement from 16.5m to 22m = 1,336 x 5.5)	EKRA - KUNUNURRA AIRPORT	7,348.0m²	Taxiway Pavement	374,748	0
67		New - Taxiway H (Old F) Pavement (widen pavement from 16.5m to 22m = 127 x 5.5)	EKRA - KUNUNURRA AIRPORT	699.0m²	Taxiway Pavement	35,649	0
68		New - Taxiway G Pavement (widen pavement from 16.5m to 22m = 127 x 5.5)	EKRA - KUNUNURRA AIRPORT	699.0m²	Taxiway Pavement	35,649	0
69		New - Taxiway F Pavement Extension West ([540m + 127m] x 22)	EKRA - KUNUNURRA AIRPORT	14,674.0m²	Taxiway Pavement	748,374	0
70		New - Taxiway F Pavement Extension East (428m x 22)	EKRA - KUNUNURRA AIRPORT	9,426.0m²	Taxiway Pavement	480,726	0
71		New - Taxiway F Seal Extension West ([540m + 127m] x 15)	EKRA - KUNUNURRA AIRPORT	10,005.0m²	Taxiway Seal	1,300,650	0
72		New - Taxiway F Seal Extension East (428m x 15)	EKRA - KUNUNURRA AIRPORT	6,420.0m²	Taxiway Seal	834,600	0

Record No	Asset ID	Asset Name	Location/Address	Area	Asset Set	Renewal Value	Condition
73		New - GA Apron West Seal (250m x 125m)	EKRA - KUNUNURRA AIRPORT	31,250.0m²	GA Apron Seal	2,343,750	0
74		New - GA Apron West Pavement (250m x 125m)	EKRA - KUNUNURRA AIRPORT	31,250.0m²	GA Apron Pavement	1,093,750	0
75		New - GA Apron West Formation (250m x 125m)	EKRA - KUNUNURRA AIRPORT	31,250.0m²	Airside Aerodrome Formation	625,000	0
76		New - Carpark Seal	EKRA - KUNUNURRA AIRPORT	8,000.0m²	Carpark Seal	120,000	0
77		New - Carpark Pavement	EKRA - KUNUNURRA AIRPORT	8,000.0m²	Carpark Pavement	240,000	0
78		New - Carpark Formation	EKRA - KUNUNURRA AIRPORT	8,000.0m²	Carpark Formation	120,000	0
79		New Runway Width Seal (2,430m x 15)	EKRA - KUNUNURRA AIRPORT	36,450.0m²	Runway Seal	5,285,250	0
80		New Runway Width Pavement (2,430m x 15)	EKRA - KUNUNURRA AIRPORT	36,450.0m²	Taxiway Pavement	1,858,950	0

Table 38: Summary List of Infrastructure - Airports

10.9 Infrastructure – Water & Sewer

Data unavailable, detailed list to be provided in future versions of the asset management plan.

10.10 Infrastructure – Other

Data unavailable, detailed list to be provided in future versions of the asset management plan.

Appendix E. EKRA Operating Budget

The following is the estimated EKRA Operating Budget (excluding Wyndham Airport) derived from the Shire's 2016/17 Operating Budget notes. Note that some figures have been rounded.

Operating Income		
EKRA Landing Fees	1,443,609	
EKRA Passenger Handling Fees	1,408,234	
EKRA Passenger Screening Fees	709,448	
EKRA Leases & Misc Income	361,216	
Total Operating Income	**3,922,507**	
Operating Expenditure		
EKRA Terminal Operating	84,952	
EKRA Airside Operations	152,747	
EKRA Employee Costs	1,364,646	
EKRA Overhead Costs	871,346	
EKRA Passenger Screening	78,103	
EKRA Plant Operating	25,000	
EKRA Technical Services & Planning	78,000	
EKRA Building & Ground Maint	154,545	
EKRA Vehicle Expenses	30,000	
EKRA Misc Operating Costs	193,920	
EKRA Depreciation		762,327
Total Operating Expenditure	**3,033,259**	
Surplus / (Deficit)	**889,248**	

Note that Depreciation, although shown, has been excluded from the Expenditure Total.

Appendix F. Default Condition Distribution Profiles

The default condition distribution profiles provided in the Moloney Model range from Very Good to Poor and are described be the following graphs;

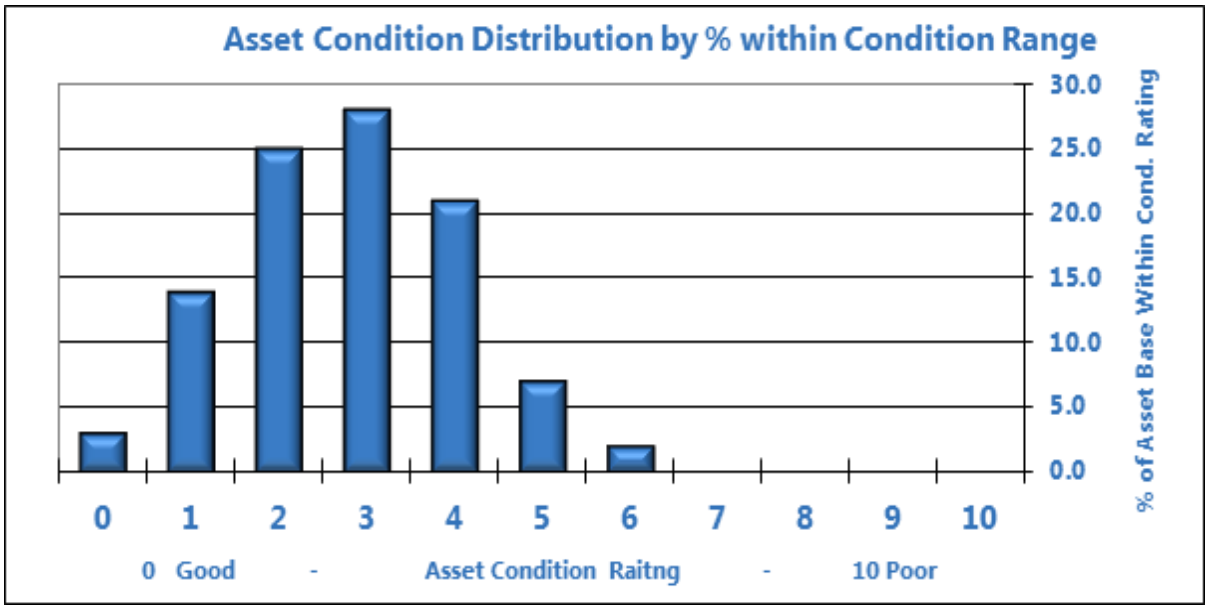


Figure 22: Very Good Default Condition Distribution

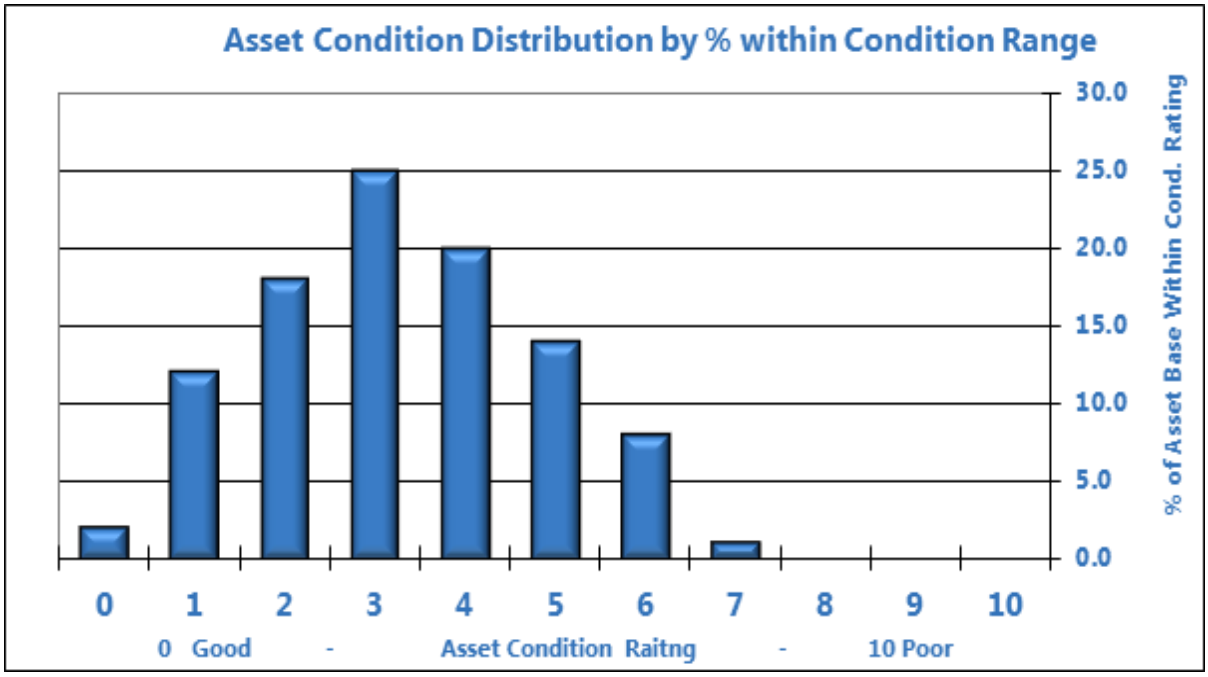


Figure 23: Good Default Condition Distribution

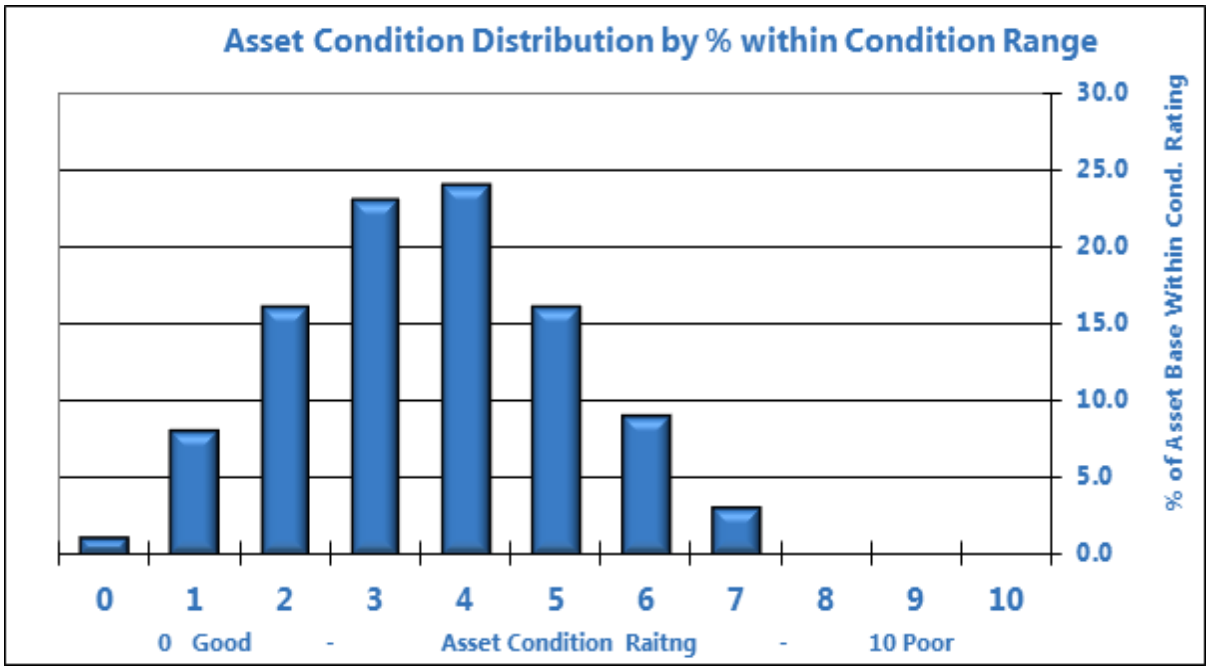


Figure 24: Above Average Default Condition Distribution

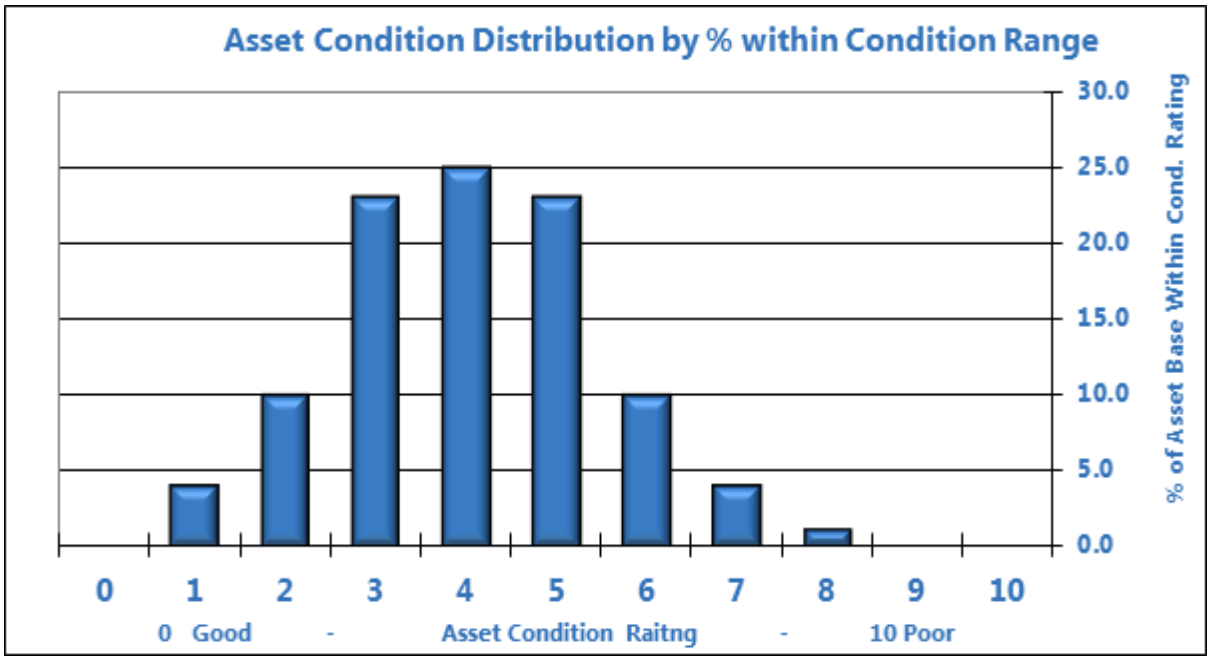


Figure 25: Average Default Condition Distribution

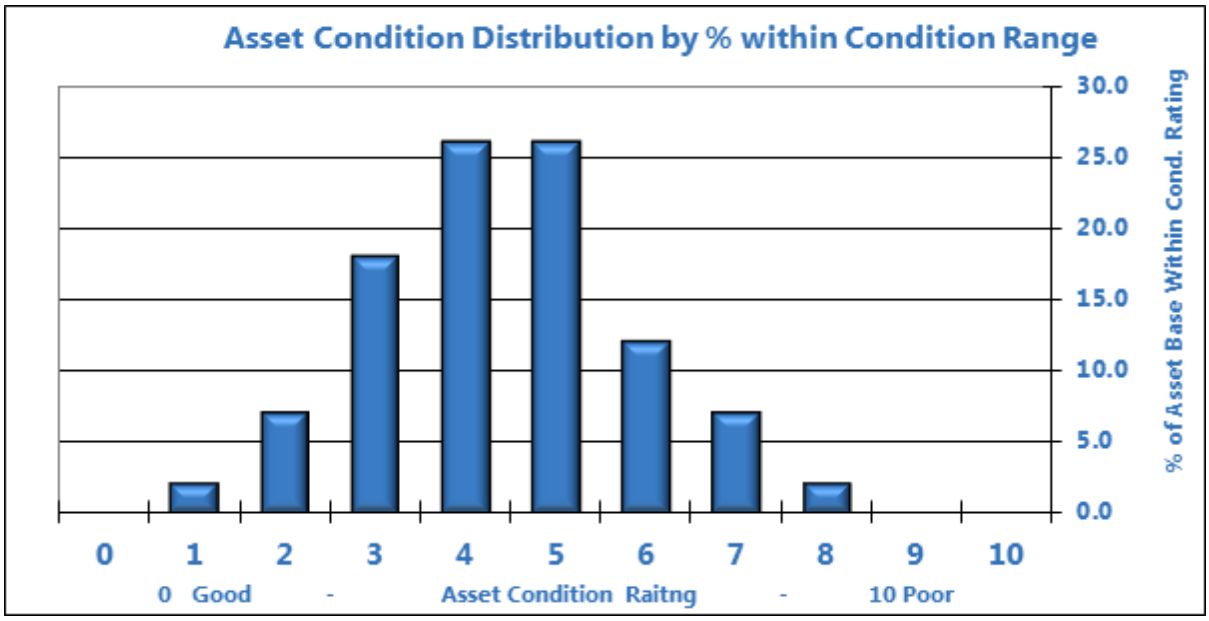


Figure 26: Below Average Default Condition Distribution

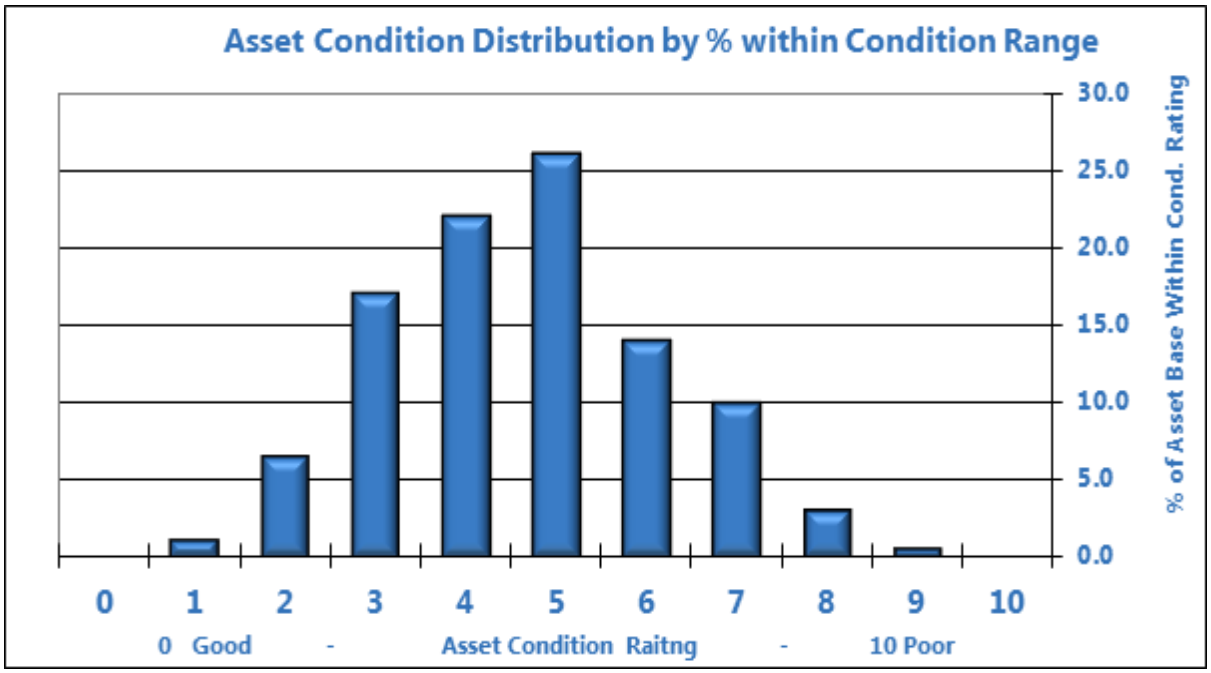


Figure 27: Poor Default Condition Distribution

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