Town of
Port Hedland

Town of Port Hedland
Asset Management Plan

Creating a nationally significant, friendly city, where people want to live and are proud to call home

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Contents

Abbreviations

AAAC	Average annual asset consumption
AMWG	Asset Management Working Group
AMP	Asset management plan
AMS	Asset Management Strategy
CBP	Corporate Business Plan
CRC	Current replacement cost
DA	Depreciable amount
DoH	Department of Health
EF	Earthworks/formation
LCC	Life Cycle cost
LCE	Life cycle expenditure
LTFP	Long Term Financial Plan
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SCP	Strategic Community Plan
vph	Vehicles per hour

This Asset Management Plan should be read in conjunction with the Town of Port Hedland's Asset Management Strategy.

1.0 Introduction

In October 2010, the Department of Local Government released the Integrated Planning and Reporting Framework (IPRF), which became law in August 2011. The IPRF consists of a Strategic Community Plan (SCP) and a Corporate Business Plan (CBP) that is informed by various strategies, including Long Term Financial Planning (LTFP), Workforce Planning (WFP), and Asset Management Framework (AMF).

The IPRF requires all local governments to plan for the future including consideration of how the Town will continue to deliver services to the community on a long-term basis in a financially sustainable and efficient manner.

Assets are fundamental to Councils' overall service delivery and planning. Responsibility for assets requires strong and informed councillor and executive oversight to achieve and maintain sustainable asset management outcomes.

Asset management must form part of an effective integrated planning and reporting framework, linking with, and supporting long-term financial planning and strategic planning to ensure that the appropriate level of funds and resources are available to continue to provide services to the community in accordance with Council's objectives as set out in the Strategic Community Plan (SCP).

A strong focus on long-term asset planning is important because there is:

- Increasing demand for services as the population grows and changes;
- Increasing community expectations in relation to service provision, accountability and value for money;
- Limited ability to grow revenue and finite resources; and
- A need to maintain, renew or replace assets.

As part of the IPRF, the Council has adopted an Asset Management Framework within which the Town's assets will be managed. This framework consists of the Asset Management Policy, Asset Management Strategy (AMS) and an Asset Management Plan (AMP) (this document). Figure 1 demonstrates how the Asset Management Framework fits with the various documents required by the IPRF.

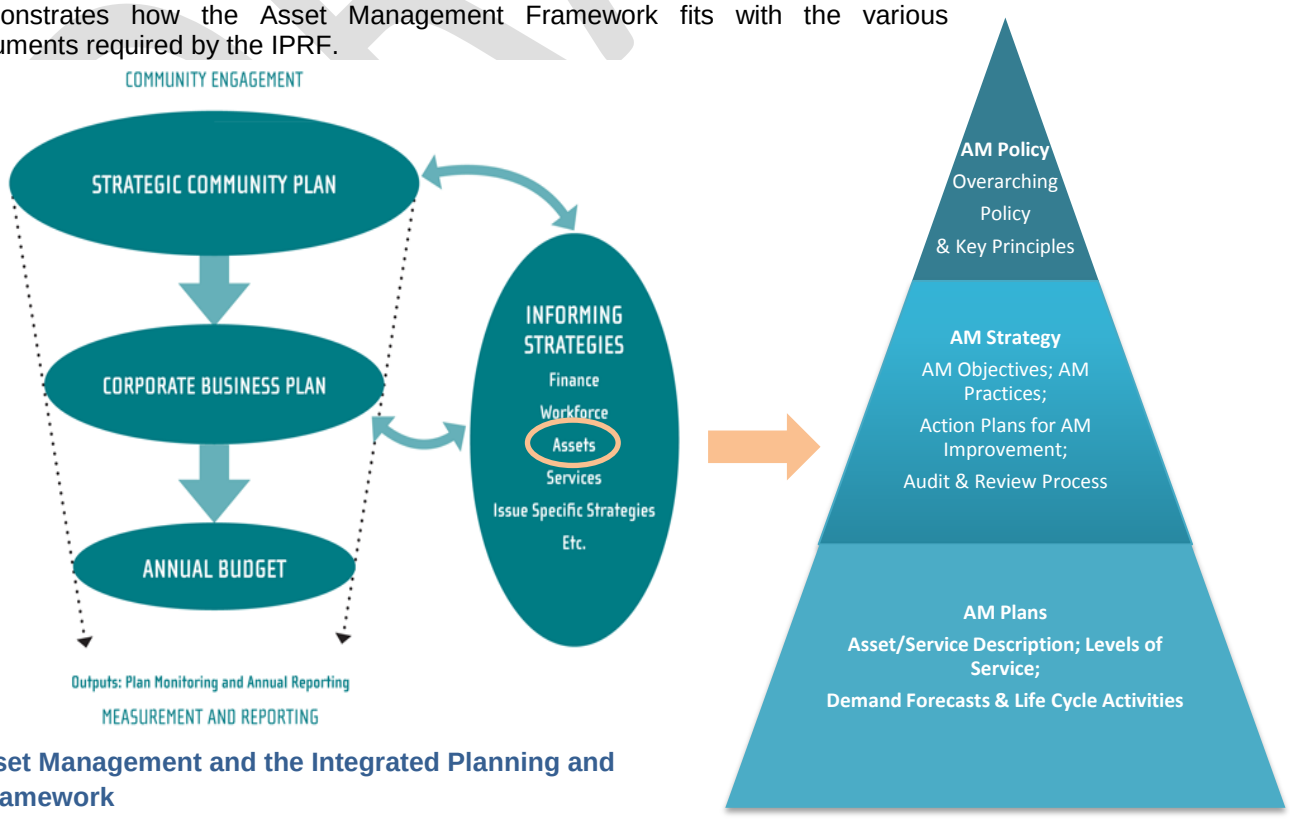

Figure 1: Asset Management and the Integrated Planning and Reporting Framework

2.0 Asset Management

Asset management is a key part of business planning, which connects, at a strategic level, decisions about an organisation's business needs, the deployment of its assets, and its future investment needs.
(Towards Better Management of Public Sector Assets, Sir Michael Lyons 2004).

Asset management is a sub-set of strategic resource planning, and is a multi-discipline activity combining the following key areas of expertise:

- Management;
- Planning;
- Finance;
- Economics;
- Property; and
- Engineering.

Asset management is about the process of guiding the utilisation of assets to ensure that they support the delivery of services to the community in the most efficient and effective manner.
In all cases, it is recognised that an integral part of asset management is the consideration of non-asset or part-asset solutions to service delivery, e.g. third party involvement, outsourcing and leasing.
At the most basic level, the following need to be in place to achieve asset management outcomes:

- Know what assets are owned or controlled by the Town;
- Know their condition;
- Understand the expected life of the assets;
- Understand what assets are required to underpin current and future service needs;
- The ability to decide what future asset needs mean in terms of acquisitions, disposals and maintenance;
- Know the cost to provide the service and asset;
- Have a system in place to prioritise resource allocation and that it is aligned with the SCP and CBP;
- Have all of the above summarised in an AMP;
- All costs (and revenues) are captured in the financial management system and entered into the Long Term Financial Plan (LTFP).

2.1 Goals and Objectives of Asset Management

The Town exists to provide services to its community. Some of these services are provided by infrastructure assets. The Town has acquired infrastructure assets by 'purchase', by contract, construction by council staff and by donation of assets constructed by developers and others to meet increased levels of service.
The Town's goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

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

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

Council's vision is:

"A nationally significant, friendly city, where people want to live and are proud to call home."

Council's mission is:

"To enhance social, environmental and economic well-being through leadership and working in partnership with the community."

The four key themes as detailed in the Town's Strategic Community Plan (SCP) 2012-2022 *revised 2014* are:

- Building a unified and vibrant **community**
- Supporting a diverse **economy**
- Balancing our built and natural **environment**
- **Leading** our community

Relevant Council goals and objectives and how these are addressed in this asset management plan are:

Table 2.1: Council Goals and how these are addressed in this Plan

	Objective	How Goal and Objectives are addressed in individual AMP
A unified community across our townships	Ensure all members of the community can access our services and facilities	Section 3 Levels of Service
	Provide safe and accessible community facilities, services, events and open spaces that connect people and neighbours	Section 3 Levels of Service
A nationally significant gateway city and destination	Advance Port Hedland's sea, air and road transport infrastructure as main logistics hub for the Pilbara, including developing Port Hedland International Airport as the gateway to the North West	Section 5.4 Renewal/Replacement Plan Section 5.5 Creation / Acquisition / Upgrade Plan
A vibrant community rich in diverse cultures	Deliver and support programs, events, facilities and services which attract and retain residents to increase our permanent population	Section 3 Levels of Service Section 5.5 Creation / Acquisition / Upgrade Plan
Sustainable services and infrastructure	Develop and maintain our infrastructure to ensure the long-term sustainability of our built and natural environment	Section 4 Future Demand Section 5 Lifecycle Management Plan
Safe, attractive and accessible environment	Partner with key agencies and the community to prepare for, respond to and recover from emergencies such as cyclones and storm surges	Section 5.2 Risk Management
Strategic and best practice local government administration	Maintain a strong and sustainable financial position	Section 6 Financial Summary (in part)
	Be efficient and effective in use of resources, infrastructure, assets and technology	Section 5 Lifecycle Management Plan

2.2 Plan Framework

Key elements of the plan are

- Levels of service – specifies the services and levels of service to be provided by the Town.
- Future demand – how this will impact on future service delivery and how this is to be met.

- Life cycle management – how the Town will manage its existing and future assets to provide the required services
- Financial summary – what funds are required to provide the required services.
- Asset management practices
- Monitoring – how the plan will be monitored to ensure it is meeting Council's objectives.
- Asset management improvement plan

A road map for preparing an asset management plan is shown in Figure 1.

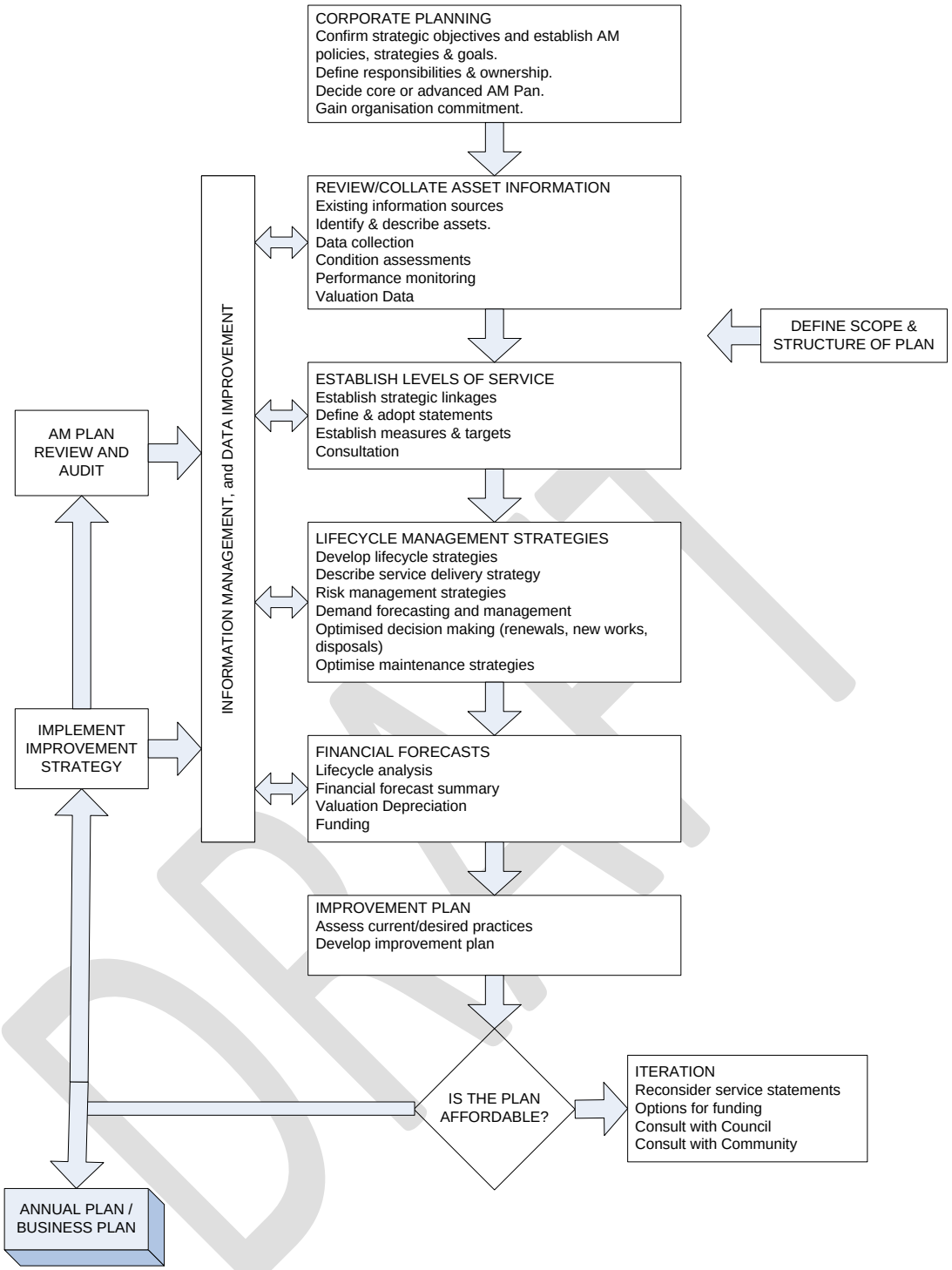

Figure 1: Road Map for preparing an Asset Management Plan (Source: IIMM Fig 1.5.1, p 1.11)

2.3 Core and Advanced Asset Management

This asset management plan is prepared as a 'core' asset management plan in accordance with the International Infrastructure Management Manual. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Future revisions of this asset management plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

3.0 The Plan's Purpose and Objective

This AMP provides the basis for the implementation of the AMS together with related matters, including organisational structure and governance, roles and responsibilities, data and performance management arrangements and performance measurement information.

The Town's AMP will ultimately provide the means of enabling the Town to manage the long-term (20-year) response of its assets to the existing and future demand for local government services and the planned growth of the Town in line with the Town's SCP and Corporate Business Plan (CBP).

4.0 The Context of the Town

Port Hedland is a dynamic town in Western Australia's beautiful North West located approximately 1,800km north of Perth. We are home to more than 20,000 people from diverse cultural backgrounds and cover 11,844 square kilometres of the Pilbara region. Our original inhabitants, the Karriyarra people, call the place Marapikurrinya for the hand shaped formation of the tidal creeks coming off the natural harbour.

Our lifestyle is relaxed and our location on the ocean provides for a variety of leisure activities. Our two main residential centres, Port and South Hedland, offer a range of community services including cultural, recreation and shopping facilities. The Wedgefield Industrial Area contains a variety of light and service industry premises and the iron ore crushing and shipping facilities are features synonymous with our rugged landscape, along with the expanded port facilities.

We are proud to be Australia's largest bulk export port with Pilbara Ports Authority recording a record annual tonnage throughput of 372.3 million tonnes in 2013/14. Our role is well established on the national and international stage, attracting internationally prominent resource companies and contributing at a nationally recognised level to the broader Australian economy.

Population	20,000 (based on 2011 ABS and 2014 accommodation surveys)
Area	11,844 square kilometres
Distance from Perth	1765km via North West Coastal Highway 1638km via Great Northern Highway
Electricity supply	Horizon Power
Water supply	Water Corporation - De Grey River and Yule River borefields
Length of road	178.72 km sealed, 484.31 km unsealed
Local industries	Ore and minerals export (predominately iron ore), salt production and export, tourism, pastoral, light industrial, transport
Number of electors	5455
Number of dwellings	5690
Total rates levied (2013/14)	$22M
Total operating revenue (2013/14)	$76M
Number of elected members	10 with 2 vacancies (as at September 2014)

Our community

We are a proud community with more than 20,000 people from diverse cultural backgrounds.

Our population is subject to significant fluctuation largely driven by prevailing economic conditions particularly relative to the resources sector. Our community also plays host to a substantial FIFO population, which is generally not captured accurately or at all in formal census data, despite having a significant impact on services, infrastructure, and housing affordability.

According to the most recent census data (2011), there were 15 832 estimated resident population in Port Hedland. We estimate that to be more than 20,000 given our population profile with non-residential (fly in-fly out) workforce. The majority of our population are young (21% aged between 25 and 34) with a strong multicultural background (40% born overseas, 6% Aboriginal and Torres Strait Islander).

Our planning assumes that growth will continue to be positive, as the region provides attractive facilities and opportunities for residents and businesses alike. A population growth factor of 2.75% has been used, reflecting average growth over the previous five years based on Census data.

The Town's current physical asset base, which is summarised in table 1, is estimated to have a replacement value of $616.1 million.

Asset Classes	Replacement Estimate ($M)	Percentage of Replacement
Buildings – Muni	$127.7	21%
Buildings – Airport	$30.5	5%
ICT	$5.2	1%
Infrastructure - Other	$97.1	16%
Infrastructure – Sealed Roads	$267.9	43%
Infrastructure – Airport	$65.2	11%
Plant & Equipment	$22.5	4%
Grand Total	**$616.1**	**100%**

Table 1: Estimated Asset Replacement Cost – by Asset Class

The current growth of the Town and demand for services, together with its longer-term development, has significant and far-reaching implications for these assets.

The Town has procured an asset management software program (Assetic) and is developing its asset management capacity and capability. In conjunction with implementation of Fair Value as required by Local Government, condition data and replacement costs will be reviewed on a regular basis.

5.0 The Town's Asset Management Vision

The Town's asset management vision is for a portfolio of *high-performing and sustainable assets* that is managed to international standards of practice; strives to meet the priorities and aspirations of the community and the strategic and operational needs of the Town; and is balanced within the Town's financial context.

6.0 The Town's Asset Management Strategy

6.1 Strategic Objectives and Outcomes

In order for the Town to achieve its asset management vision, it is important to recognise that asset management's successful contribution to the Town's delivery of services to the community is

dependent upon two separate, but inter-dependent factors: the approach to managing the asset management process; and the performance of the assets themselves, both individually and as a portfolio.

In recognition of this, the Town has prepared an AMS, which:

- Consolidates and documents the Town's existing knowledge about its assets and their current systems of management;
- Provides strategies for the improvement of the Town's asset management process; and
- Provide strategies for the optimal performance of the Town's assets.

The AMS has identified five strategic objectives as being the pillars upon which its asset management vision for high-performing and sustainable assets will be built. These objectives are:

6.1.1 Direction, Accountability and Integration

To develop a whole-of-Town asset management system and process that provides direction across the organisation, promotes clear accountability at all levels of management, and integrates asset management into the corporate planning process.

6.1.2 Lifecycle Management

To manage the Town's assets, on the principles of life cycle management, to ensure their most effective and efficient performance.

6.1.3 Data and Information Management

To ensure the quality and accuracy of asset data and information that enables analysis of asset performance and effective decision-making.

6.1.4 Standards and Levels of Service

To develop asset management standards and levels of service that reflects the aspirations of the community and satisfies the internal operational requirements of the Town's business units.

6.1.5 Continuing Improvement

To develop an organisation-wide asset management function with a culture of continuing improvement in skills, processes, knowledge and practices.

Table 2 lists these objectives with their desired outcomes.

Strategic Objective	Desired Outcome
Direction and Accountability	Defined roles and responsibilities and accountabilities that are clearly understood across the organisation and integrated into the Town's business and resources planning process.
Lifecycle Management	A portfolio of assets that is aligned with the Town's corporate, financial and business objectives, which is effectively and efficiently managed from asset conception, planning, design, use and disposal.
Data and Information Management	The ability to identify, analyse and model asset trends that enhance asset efficiency and effectiveness and enable informed decision-making.
Standards and Levels of Service	A portfolio of assets that is aligned with community and organisational expectations and priorities having regard to the financial context of the Town.
Continuous Improvement	Ongoing improvement in asset management competency and capacity.

Table 2: Strategic Objectives and Outcomes

6.2 The Town's Asset Base and Its Management

The AMS (section 6) provides an assessment of the Town's current position of its asset management capacity and capability and of its asset base in relation to the strategic objectives and outcomes.

Appendix 1 provides a summary of this position, and strategies and actions to achieve the desired outcomes.

This plan provides further detail to that assessment and the implementation of strategies to improve the Town's asset management capacity and capability.

Sections 6.3 through 6.12 outline the principal areas that the Town plans to improve the management and performance of its asset base. These represent the translation of the AMS into a plan for their implementation.

6.3 Status of the Existing Asset Base

A high-level summary of the Asset Base analysis follows in section 6.3.1

The implementation of this plan will enable these initial estimates and indicators to be analysed and refined on an asset-by-asset basis and plans developed to address the priority areas for renewal and replacement.

The Renewal and Replacement estimates are included in the individual Asset Management Plans. These include Municipal Buildings (Appendix 2) and Sealed Roads (Appendix 3).

Development of individual Asset Management Plans for other Asset Classes will be included in future revisions of this document.

6.3.1 Estimated Asset Replacement Cost by Entity

Asset Summary	Replacement Estimate ($M)	Percentage
Municipal		**84%**
Buildings	$127.74	21%
ICT	$3.9	1%
Infrastructure	$365.0	59%
Plant & Equipment	$19.1	3%
Airport		**16%**
Buildings	$30.5	5%
ICT	$1.3	0%
Infrastructure	$65.2	11%
Plant & Equipment	$3.4	1%
Grand Total	**$616.1**	**100%**

Table 3: Estimated Asset Replacement Cost – by Entity

6.4 Data and Information

The Town is currently implementing an Asset Management System, Assetic (MyValuer module).

SynergySoft Version 10 is used as the Town's accounting and finance system. Historically, Synergy Asset Register module has been used for asset accounting purposes with spreadsheets with detailed information for various asset classes.

Implementation of Assetic Asset Management Software is scheduled to occur during the 2014/15 year with a view to have all asset classes recorded and maintained in this central strategic asset register by 2015/16.

Effective from 1 July 2012, the Local Government (Financial Management) Regulations were amended and the measurement of non-current assets at Fair Value became mandatory over a three year phased in process.

The Town commenced the process of adopting Fair Value in accordance with the Regulations and at the date of this AMP, Plant and Equipment, Land and Airport and Municipal Buildings have been revalued at Fair Value. Infrastructure and IT equipment are scheduled to be revalued and documented in the Asset Management System in the 2014/15 year.

As part of the Fair Value process, data is reviewed validated and reconciled to existing data including, type, size, age, condition, remaining useful life, replacement cost and asset owners for each asset is identified.

The outcomes of this three year process will be a single whole-of-Town Asset Register and Database that:

- Provides the platform for informed decision-making going forward;
- Enables the improvement of the Finance Register in terms of recording assets and their accounting treatment;
- Matches assets to asset owners;
- Enables the implementation of good asset management practice and process;
- Enables the production of reality-based Asset Management Strategies and Plans that are linked to the SCP and CBP by responding to the service and development needs of the Town; and

- Provides sound financial information for the LTFP.

6.5 Significant and Mission Critical Assets

In order to prioritise actions for future revisions of the AMS and AMP and give direction to the allocation of funds, the Town will identify those assets that are significant and critical to the administration and operation of the Town and the provision of services to the community. These will be ranked according to type of risk, the likelihood of an occurrence and the likely result of an occurrence that affects an asset's ability to perform its required function. (Risk assessments will be conducted in accordance with the Town's CBP). Assets will also be ranked according to attributes including:

- Importance of Service
- High profile/Visibility
- Value of Asset
- Revenue Capacity
- Cultural & Heritage Status
- Political Consideration
- Community Utilisation

Business contingency and continuation plans will then be aligned in association with risk assessment and hierarchy of criticality for assets.

Management of risk is considered further in section 6.8.

6.5.1 Criticality Hierarchy Table

		Level 1	Level 2	Level 3
Importance of Service	Importance of the asset to the Community.	3 - High Importance	2 - Moderate Importance	1 - Low Importance
High Profile/Visibility	Highly visible entrance statement to Town or high profile in the community for other reasons.	3 - High profile	2 - Moderate profile	1 - Low profile
Value of Asset	Based on the replacement value of the asset.	3 - High > $2.5m	2 - > $800K < $2.5m	1 - < $800K
Revenue Capacity	Assets that generate an income to offset expenses.	3 - greater than $100k	2 - Between $50k and $100k	1 - Less than $50k
Cultural & Heritage Status	Those assets with cultural importance or heritage significance.	3 - High profile	2 - Medium profile	1 - Low profile
Political Considerations	Asset that has political issues surrounding it due to location, function or other reason.	3 - High risk	2 - Medium risk	1 - Low risk
Community Utilisation	Usage of the facility by the local community and visitors.	3 - High Use	2 - Medium Use	1 - Low Use

6.6 Asset Condition and Replacement Cost

The condition rating of assets covered within the Asset Management Plans is as follows:

Rating	Generic Condition Rating Definitions Scale 1-5
1	Excellent – Asset is new or rehabilitated to new, or near new with no visible deterioration.
2	Very Good – Asset may show early stages of deterioration evident.
3	Good to Fair – Asset is showing obvious signs of deterioration and slight serviceability lost
4	Fair to Poor – Asset showing obvious signs of deterioration, requires high maintenance costs and serviceability loss
5	Extremely Poor – Severe deterioration, severe serviceability problems, very high maintenance costs.

Following identification of significant and mission critical assets, and classification into priorities of the balance of the asset portfolio, the Town will carry out or arrange asset condition assessments, the level of detail and purposes for which will be determined by asset priority and significance.

6.7 Service Demand and Levels of Service

The AMS (section 6.4) identified the strategic themes behind the Town's goals and objectives, which are described in the CBP. These are:

- Community: vibrancy and diversity
- Economic: resilience, choice and opportunity
- Environment: balance with unique surroundings
- Local Leadership: leaders in the Pilbara and committed to transforming Port Hedland

The demand for assets and their levels of service are derived from the Town's service drivers, which are created by the Strategic Themes (longer-term strategies) and on-going business as usual service delivery to both the community (external) and support to the Town's administration (internal).

Once these internal and external service drivers have been identified, it will be possible to determine and agree appropriate levels of service for each asset.

6.8 Management of Risk

The policy and principles for the management of risk are embedded on the Town's CBP.
Section 6.5 considers asset related risk in the context of business and service continuity. Table 5 identifies a number of risk categories together with associated potential risks and causes.
This plan includes a comprehensive risk assessment and management exercise in relation to the performance of assets.

Risk Category	Potential Risks	Potential Causes
Property	• Environmental & Climatic damage • Poor condition • Non-performance	• Weathering & Cyclone • Poor maintenance & maintenance backlogs/renewal & replacement gaps • Lack of standards, performance measures and asset management
The Public and the Community	• Personal injury • Property damage • Disruption to services	• Poor maintenance • Lack of planning • Lack of standards, performance measurement and contingency & continuity planning.
Legal	• Public liability • Damages • Breach of contract • Duty of care (negligence) • Compliance	• Poor maintenance • Lack of contingency planning • Lack of information & data • Poor inspection regimes, asset management processes and system • Lack of governance, roles & responsibilities and accountability
Financial	• Financial wastage (budgetary) • Increased balance sheet liability • Legal damages • Inability to collect revenues (rates)	• Lack of planning & effective financial management regime (budgeting) • Maintenance backlogs/renewal & replacement gaps • Systems failure
Political	• Poor decision-making capacity	• Lack of asset information & data • Poor assessment of service demand drivers

Table 4: Risk Matrix

This demonstrates that most, if not all, asset related risks could be mitigated through good asset management systems and process. Maintenance is regarded by the asset management industry as a risk management activity.

6.9 The Development of Asset Management Strategies and Plans

The aggregated outcomes of the actions described in sections 6.3-6.8 will enable the Town to strengthen AMS and AMP with sufficient detail and quality to provide the Town with a reliable direction for the management of its assets in terms of the optimal asset portfolio, asset performance and financial need.

These outcomes will provide the ability to prepare plans, budgets and programs based on need and priority determined by reliable asset data and life cycle information for the following:

- Detailed short to medium-term (annual and 5-yearly) operating and maintenance requirements;
- Renewal and replacement strategies;
- Capital investment strategies for new assets and upgrades;
- Asset disposal strategies; and
- Accommodation needs.

They will also provide the basis for the development of a performance management system, which tracks individual assets, the portfolio as a whole, asset effectiveness and efficiency, industry benchmarks, and the asset management system and processes.

6.10 Performance Management

The measurement of asset performance is currently focused on the operational and technical management of assets. The AMS provides a strategy for a performance management system in the following areas:

- Asset performance against agreed internal and external levels of service;
- Performance of individual assets measured against benchmarks and financial and non-financial targets;
- Asset effectiveness;
- The DLG ratios;
- The renewal and replacement gaps;
- Maintenance effectiveness;
- The asset management processes;
- Improvement initiatives; and
- Staff performance and retention, appraisal systems, skills and experience gaps, and training and development programs.

6.11 Asset Management Process

All asset management activity and successful asset management outcomes are dependent upon and underpinned by good processes and systems.
The AMS describes a detailed strategy for the adoption of processes and an asset management system based on the industry-acknowledged asset management cycle. This plan provides for their implementation.

6.12 Asset Management System (Software)

The Town had previously compiled all asset information and data into spreadsheets for the purposes of the initial Asset Management Plan. Assetic Software has been nominated as the strategic Asset Management Software due for implementation 2014/15.

7.0 Asset Management Plans

The order of activity for the production of Asset Management Plans for each asset category is as follows:

Municipal Buildings	Complete
Sealed Roads	Complete
Public Open Space	July 2015
Drainage	July 2015
Footpaths, Cycleways	July 2015
ICT	November 2015
Plant and Equipment	November 2016
Bridges	November 2016
Unsealed Roads	November 2016

Although some activities overlap each other and may be staged according to the implementation of Fair Value, the priority rankings are:

1. Data audit
2. Asset Management Reviews
3. Identification of mission critical assets
4. Asset condition assessments
5. Confirmation of asset replacement and renewal costs
6. Assign asset owners
7. Define service demand and levels of service
8. Risk assessments
9. Refine data in Assetic Software
10. Revise DLG ratios
11. Establish performance management system
12. Review/revise Asset Management Strategy & Plan
13. Develop and implement asset management processes

Glossary of Terms

Annual service cost (ASC) An estimate of the cost that would be tendered, per annum, if tender were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs less revenue.

Asset class Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

Asset condition assessment The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

Asset consumption ratio (ACR) The ACR highlights the aged condition of the Town's stock of physical assets. It is the written down asset value divided by the current replacement costs.

> All local governments are required to report this ratio to the Department of Local Government Western Australia utilising current financial records. Ratios quoted in this AMP relate to assets covered in this AMP only.

Asset management The combination of management, financial, economic, engineering and other practices applied to physical assets from their planning, acquisition, operation, maintenance, replacement and disposal, to ensure that the assets meet the priorities of the Strategic Community Plan with the objective of providing the required level of service in the most cost effective manner.

Asset management plan A long term plan that combines multi-disciplinary asset management techniques to outline the assets activities, program and resources applied to provide a defined level of service for each asset class over the lifecycle of the asset.

Asset management strategy A strategy or approach for asset management.

Asset renewal funding ratio (ARFR) This ratio indicates whether the local government has the financial capacity to fund asset renewal as required, and can continue to provide existing levels of services in future, without additional operating income; or reductions in operating expenses. It is the net present value of planned capital renewals over 10 years divided by the net present value of required capital expenditure over 10 years.

> All local governments are required to report this ratio to the Department of Local Government Western Australia utilising current financial records. Ratios quoted in this AMP relate to assets covered in this AMP only.

Asset sustainability ratio (ASR) This ratio is an approximation of the extent to which assets managed by the Town are being replaced as these reach the end of their useful lives. It is calculated by measuring capital expenditure on renewal or replacement of assets, relative to depreciation expense. Expenditure on new or additional assets is excluded.

> All local governments are required to report this ratio to the Department of Local Government Western Australia utilising current financial records. Ratios quoted in this AMP relate to assets covered in this AMP only.

Assets Future economic benefits controlled by the Town of Port Hedland as a result of a past transaction or event whereby:

- Its value can be measured reliably, and;
- Its value must exceed a stated materiality threshold being $5,000 or form part of a network asset group, and;

- It must be probable that future economic benefits of the asset will eventuate (i.e the asset acquired supports the delivery of Town services to the community in line with Council's objectives).

Asset – current An asset that can easily be converted to cash within the next 12 months.

Asset – non current An asset that cannot easily be converted to cash within the next 12 months.

Attractive item An item defined as below:

- has a value of less than $5k (exc GST);
- has an attractive nature;
- is prone to misappropriation for private use or theft.

Average annual asset consumption (AAAC)* The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.
Brownfield asset values* Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretional expenditure, which increases future operating, and maintenance costs, because it increases the Town's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding Funding to pay for capital expenditure.

Capital grants Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure See capital expenditure definition

Capital new expenditure Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretional and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the Town's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets See asset class definition

Component An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

***Counci*l** The elected council (comprising Councillors) of the Town of Port Hedland.

Current replacement cost (CRC) The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost "As New" (CRC) The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Depreciable amount The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC) The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life See useful life definition.

Expenditure The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arm's length transaction.

Gap analysis A method of assessing the gap between the Towns' current asset management practices and the future desirable asset management practices.

Greenfield asset values Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets Comprises the asset sub-classes defined in section 5 of the Asset Management Framework and Guidelines issued by the Department of Local Government.

Investment property Property held to earn rentals or for capital appreciation or both, rather than for:

(a) use in the production or supply of goods or services or for administrative purposes; or

(b) sale in the ordinary course of business (AASB 140.5)

Level of service The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, statutory functional requirements, environmental, acceptability and cost.

Life Cycle The phases of activities that an asset goes through, including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal.

Life Cycle Cost The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

Maintenance Regular ongoing day-to-day work necessary to keep an asset operating to achieve its optimum life expectancy.

Maintenance and renewal gap Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).

Maintenance and renewal sustainability index Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Maintenance expenditure Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and

provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality An item is material is its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Network Asset Group A collective group of assets; whilst individually do not function for their intended purpose and may be under the threshold of an asset defined herein, but collectively in a group of assets, functions as intended and exceeds the threshold of an asset, e.g. desktop computers, servers, laptops etc.

Non-revenue generating investments Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Town, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operating expenditure Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

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

PMS Score A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

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

Recoverable amount The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding Funding to pay for recurrent expenditure.

Rehabilitation See capital renewal expenditure definition above.

Remaining life The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal See capital renewal expenditure definition above.

Residual value The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk Probability and consequence of an event that could impact on the Town's ability to meet its corporate objectives.

Risk management The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

ROMAN II Pavement Management System used by the Town. ROMAN II is a program that provides Asset Management tools and support services to all Local Governments across WA. While ROMAN II began focused on providing the tools for road management, it has now evolved to support all asset classes and the issues associated with corporate planning and management.

Section or segment A self-contained part or piece of an infrastructure asset.

Service potential The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (DRC/DA).

Stakeholders 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.

Strategic Community Plan The plan containing the long-term goals and strategies of the Town.

Strategic Management Plan (SA) Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component Smaller individual parts that make up a component part.

Town of Port Hedland The collective Town of Port Hedland organisation.

Upgrade Enhancing an existing asset to provide higher level of service.

Useful life Either:

(a) the period over which an asset is expected to be available for use by an entity, or

(b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Town. It is the same as the economic life.

Value in Use The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows, where if deprived of the asset its future economic benefits would be replaced.

Annexure 1
Asset Management Strategy Summary

Strategic Objective: Direction and Accountability	Defined roles and responsibilities and accountabilities that are clearly understood across the organisation and integrated into the Town's business and resources planning process.		
Item	**Current Position**	**Strategy**	**Action**
Governance and Management Arrangements	The Town has put initial governance arrangements in place as part of this strategy. The Workforce Plan provides for the appointment of asset management staff in the areas of Technical Services and Finance.	Further development of governance and management arrangements over the next 12 months	Development of roles and responsibilities and assignment of asset management tasks. Nomination of a senior corporate sponsor of asset management. Nomination of an owner of the corporate asset management function. Active involvement of Executive Management Team and asset owners. Elected Members are kept informed of asset management progress.

Strategic Objective: Lifecycle Management	A portfolio of assets that is aligned with the Town's corporate, financial and business objectives, which is efficiently and effectively managed from asset conception, planning, design, use and disposal.		
Item	**Current Position**	**Strategy**	**Action**
Asset Knowledge	The Town has a broad picture and understanding of its asset base. This will be expanded in the areas of asset condition and performance.	The Town will develop a detailed understanding of the asset portfolio in terms of asset inventory; asset condition, value, cost and appropriateness; and remaining life.	Carry out a comprehensive asset audit, including land holdings and revenue assets. Confirm condition of significant & critical assets. Develop maintenance & renewal

			programs that align with strategy and asset owner requirements.
The Town's Goals & Objectives	Goals and objectives are being developed through the SCP and CBP.	Asset Management Strategies and Plans will be framed to align the asset portfolio with the strategic goals and objectives of the Town.	Integrate asset strategies and plans into single Asset Strategy and Planning documents that, as an aggregate, reflect the Town's Corporate Business Plan, Workforce Plan, ICT Plan and Long-term Financial Plan. Adopt a performance management system based on a balanced scorecard approach, i.e. financial, customer, internal business, and environmental and social perspectives.

Service Drivers	The current management of the Town's assets is principally driven by the requirements of the physical upkeep of assets, the operational requirements of the Town, and through community surveys. The CBP recognises 3 main demand sets that drive the requirement for services: • Long-term strategic growth demand; • Ongoing external demand from the community; and Ongoing internal operational demand from the Town's administration.	Asset Strategies and Plans to address the long, medium and short-term needs of each service demand set.	Implement an integrated whole-of-organisation strategic and planned approach to asset management. Each directorate of the Town's administration will define the criteria required of their assets having regard to the following: • Asset type; • Location; • Utility; • Serviceability and functionality; • Condition; • Amenity; and • Financial criteria.

Financial Performance Indicators	This strategy presents initial assessments of the Town's asset replacement costs, expenditure forecasts, gaps and ratios. These will inform the LTFP. Data used for these assessments have been sourced from various and separate records, which have been identified as having a number shortcomings.	Consolidate all asset data into a single comprehensive database that is linked to the Town's financial and accounting systems. Establish a new budgeting paradigm and financial reporting regime that reflects the whole-of-life management of assets. Manage the Renewal & Replacement Gap by: • Prioritising and grading the importance of each asset; • Identifying significant and mission critical assets; • Assessing the continuing need and standards/levels of service for these assets; • Defining minimum asset condition and in-use efficiency and effectiveness to support service levels; • Assessing their condition; • Assessing the risk and impact on the Town's services and operations of any failure to meet standards/levels of service; Develop individual asset plans for mission critical assets and the balance of asset classes by reference to the Town's financial context and availability of funds.	Check, cleanse and verify all asset data across all registers, records and systems. Develop new budget processes and financial reporting regimes for each asset type that is based upon their actual operating and service performance requirements as part of individual asset plans. ACR: refine the estimation of the ACR as improvements are made to financial & asset data. ASR: confirm a ratio that reflects the true position of the Town by: • Examining and confirming asset Written Down Values; • Reviewing the estimated expenditure on asset renewal and replacement; and • Refining the budget process and methodology. ARFR: Calculate ratio following finalisation of asset renewal program. Develop a Performance Management System comprising sets of Performance Objectives, Key Performance Indicators and Measures of Performance for each asset class. The Performance Management System will be drawn up and agreed in consultation with the Town's asset *owners.* Examples of maintenance performance indicators are shown in table 12 below.
Asset Management Cycle & Processes	The Town's current asset management processes are primarily related to 5-year and	Introduce Asset Management processes based on acknowledged leading practice principles for the public sector that cover all stages of asset	Construct and implement processes for: Strategic Asset Planning; Asset Programs; Asset & Service Delivery Programs; Performance Management &

	annual expenditure budgets, asset maintenance and operations.	lifecycles. Maximise revenue streams from commercial assets, alternative and/or additional asset uses.	Review; and Processes for Improvement. (Appendix 1.) Review asset portfolio for potential revenue sources.
Strategic Objective: Data and Information Management	The ability to identify, analyse and model asset trends that enhance asset efficiency and effectiveness and enable informed decision-making.		
Item	**Current Position**	**Strategy**	**Action**
Data Systems	The Town has one asset register and maintains spreadsheets to record asset information and for the management of its assets, the responsibility for which is spread across the organisation. Asset records do not align between the corporate finance system and operating divisional records. A comprehensive audit of existing data and systems has occurred and shortfalls identified. The Town does not have an asset management software system (AMS).	Consolidate data and information onto a single AMS that satisfies the following: • Linkage to the Financial system; • Categorisation of asset classes and hierarchies; • Capacity to store and record all asset details; • Maintenance planning & works; management; • Procurement & contract management; • Management & work processes; • Reporting functions; • Capacity to develop with Town's expanding requirements; • Compatible with web-based devices to transfer data between operational sites and the AMS; • Local government experience; • Strong systems support. Convert to an AMS within 12 months.	Define required asset data and asset information requirements. Define asset management information reporting hierarchy and requirements that are consistent with governance and management arrangements. Collate data onto individual spreadsheets for transfer into an AMS Develop specification for an AMS. Select and implement an AMS.
Strategic Objective: Standards and Levels of	A portfolio of assets that is aligned with community and organisational expectations and priorities having regard to the financial context of the Town.		

Service			
Item	**Current Position**	**Strategy**	**Action**
Levels of Service (LOS) & Property/Facility Management Standards	The Town currently conducts community surveys to assess standards of service. The Town is planning the introduction of a formal LOS framework and documented service standards.	Expand/enhance the community surveys to include information relating to the condition, use and effectiveness of assets. Document a LOS framework that clearly defines and documents LOS for: • Community; • Technical; • Compliance; and • Internal services.	Design survey template for community feedback on assets; and methodology to interpret and analyse responses for input into strategies. Agree and set minimum internal and external standards for each asset category/facility supported by an inspection and management regime. Document a register of legislative requirements, codes of practice and standards, and other obligations. Develop processes to ensure their compliance.
Performance Measurement	The Town is currently planning the adoption of a formal performance measurement system.	Develop a performance measurement system that comprises outcomes, standards and targets, indicators and measures, and bases of measurement. Apply the Town's risk management system to evaluate and manage asset and associated service related risks.	Develop methodologies to measure and analyse the performance of the Town's assets, and the asset management systems and processes used in their management, against LOS and financial criteria. Examples of LOS for buildings are shown in table 15. Prioritise assets; analyse risks; and prepare and test contingency and continuity plans.
Strategic Objective: Continuous Improvement	Ongoing improvement in asset management competency and capacity.		
Item	**Current Position**	**Strategy**	**Action**
Asset Management Awareness, Knowledge and	The Town is implementing the IPRF requirements of the DLG. These require an	Enhancement and development of asset management practices on an	Develop awareness, training and development programs for all levels of Town staff and Elected Members that

Understanding	extended knowledge and understanding over and above current practices.	ongoing basis.	caters for induction and ongoing development. These programs will be planned to align with the implementation of the improvement strategy. Develop a system of self- and external assessment. Benchmark against other jurisdictions, WALGA, Department of Local Government requirements, and other bodies. Maintain a process to track developments and innovations in *best* practice.
Skills & Experience	The Town possesses competent technical and operational skills and experience.	Develop and acquire skills and experience necessary to fulfil the requirements of the IPRF in Asset Management	Undertake skills audit. Identify required skills. Close gaps through a plan for recruitment, up-skilling & training.

Annexure 2
Asset Management Plan
MUNICIPAL BUILDINGS

Annexure 3
Asset Management Plan
SEALED ROADS

Municipal Buildings Asset Management Plan

Version R2

November 2014

Document Control	

Rev No	Date	Revision Details	Author	Reviewer	Approver
R1	July 2014		CT/JV	AMWG	
R2	November 2014		CT/AT	AMWG	

Contents

1.0 Executive Summary

1.1 What the Town Provides

The Town provides a building portfolio in partnership with YMCA to enable the provision of various services to the community including an airport, recreational services, library services, an administration centre and more.

The Town is responsible for 20 airport buildings, one civic centre, 17 community buildings, 12 depot buildings, 43 residential houses/units for staff housing, Waste Facility buildings, 21 public amenity buildings, 33 recreation structures and buildings and 1 retirement village. Of these, the airport buildings and the four houses for airport staff will be covered in the future Airport Asset Management Plan.

1.2 What does it Cost?

The annual costs to provide services at the current levels are:

Operational expenditure (13/14 Actuals)	$5,382,888
Maintenance (14/15 Budget)	$1,476,667
Renewal (average)	$3,295,254
Total	$10,154,810

The Town's current annual funding is:

Operational expenditure (13/14 Actuals)	$5,382,888
Maintenance (14/15 Budget)	$1,476,667
Renewal (14/15 Budget)	$4,744,000
Total	$11,603,555

Department of Local Government performance measures are discussed in Section 0 and summarised as:

Measure	Result	Requirement	Advanced
Asset Consumption Ratio (ACR)	68%	≥50%	60-75%
Asset Sustainability Ratio (ASR)	144%*	≥90%	90-110%
Asset Renewal Funding Ratio (ARFR)	101%	75-95%	95-105%

These ratios, calculated for municipal building assets only, suggest funding is broadly adequate for building renewal.

* In the 2014/15 year, the excess capital expenditure of $1,448,746 is due to significant capital works being performed on the civic centre roof and other internal fit out.

1.3 What we will do

The Town plans to develop, operate and maintain the building portfolio to achieve the following strategic objectives.

1. Ensure the building portfolio is maintained at a safe and functional standard as set out in this Asset Management Plan.
2. Members of the community have access to the Town's services and facilities.
3. Increased facilities for sustainable use of power and water.
4. Develop funding strategies for the operation, maintenance, renewal and upgrade of the building portfolio.

1.4 Measuring our Performance

Quality

Building assets will be maintained in condition fit for purpose as per our service standard. Defects found or reported that are outside our service standard will be repaired. See our maintenance response service levels for details of defect prioritisation and response time.

Function

Our intent is that an appropriate building portfolio is maintained in partnership with other levels of government and stakeholders to ensure services and facilities are appropriate for use and are accessible by members of the community.

Building asset attributes will be maintained at a safe level and associated signage and equipment be provided as required to ensure public safety. We will ensure key functional objectives are met, including:

- Ensure all members of the community can access our services and facilities
- Provide safe and accessible community facilities, services, events and open spaces that connect people and neighbours

The main functional consequence of the buildings projects and works programs is improved access to services.

Safety

We inspect all buildings regularly and prioritise and repair defects in accordance with our inspection schedule to ensure they are safe.

1.5 The Next Steps

The key actions resulting from this Asset Management Plan are:

- Define and document service level standards and criticality across all buildings asset types
- Improve data for assets including technical, valuation, maintenance, condition, performance, risk and life cycle data for collation in Asset Management System
- Establish regular Condition and Inspection Regimes
- Review building portfolio financial analysis
- Establish growth projections
- Review maintenance program
- Review capital works program

2.0 Introduction

2.1 Background

This Asset Management Plan is to demonstrate responsible management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding required to provide the required levels of service.

The Asset Management Plan is to be read in conjunction with the following associated planning documents:

- Long Term Financial Plan 2014/14-2023/24
- Town of Port Hedland Strategic Community Plan 2012-2022 *revised 2014*
- Asset Management Policy (9/010)
- Asset Management Strategy
- Budget 2014/2015-2017/2018
- Town of Port Hedland Corporate Business Plan 2012-2016 (Draft)
- Disability Access and Inclusion Plan
- Pilbara's Port City Growth Plan
- Town of Port Hedland Staff Housing Strategy (Draft)

This Asset Management Plan covers the following assets:

One civic centre, 17 community buildings, 11 depot buildings, 43 municipal and GP staff houses, waste facility buildings, 21 public amenity buildings, 34 recreation structures and buildings and 1 retirement village.

Table 1: Assets covered by this Plan (AssetVal June 2014)

Asset category	Count	Replacement Value ($M)
Civic centre	1	10.4
Community	17	22.4
Depot	12	3.4
Housing	43	20.3
Waste Management	3	0.02
Public amenity	21	3.9
Recreation	33	64.9
Retirement	10	4.4
TOTAL	**140**	**129.7**

Key stakeholders in the preparation and implementation of this Asset Management Plan are:

Internal Stakeholder	Role
Elected Members	Community representation
Chief Executive Officer	Asset management direction and leadership
Town of Port Hedland Directors	Executive management endorsement, sign off and executive ownership
Manager Investment and Business Development	Strategic line management of the Asset Management function
Manager Infrastructure Development	Review maintenance and capital improvement program and implementation of the Asset Management Plan actions
Asset Management Engineer	Asset Management Plan development, review and continuous improvement
Asset Accountant	Maintain financial information on assets
External Stakeholder	**Role**
Town of Port Hedland community	Building and service users
Town of Port Hedland business	Building and service users
Insurers	Assist to manage financial risk of the Town

2.2 Plan Framework

Key elements of the plan are

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

3.0 Levels of Service

3.1 Customer Research and Expectations

The Town has not carried out any recent research on community expectations with specific emphasis on Building Asset Management Service Levels.

In this Building Asset Management Plan the Town is focusing on legislative, organisational and technical levels of service in the areas of physical condition, functionality, affordability and safety.

It is imperative for the Town to first understand what our current levels of service are in order to effectively align these with desired levels of service and affordability.

3.2 Legislative Requirements

The Town has to meet many legislative requirements including Australian and State legislation and State regulations. The implementation of this plan will be carried out in accordance with these requirements.

3.3 Current Levels of Service

Appropriate level of service performance measures have not been finalised or adopted in relation to Municipal Buildings in this Asset Management Plan. Both current and desired levels of service will be addressed in future reviews of this plan, engaging with asset owners and the community in order to define desired levels of service and a criticality hierarchy of individual assets.

Community Levels of Service relate to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.

Technical levels of service relate to measures the Town has direct control over in the above areas, for example extent of compliance with legislation, condition etc.

Internal levels of service are for reporting both within the Town and to the Department of Local Government, for example compliance with financial requirements.

The examples of service levels are detailed in the table on the following page.

Table 2 Current Service Levels

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
Community Levels of Service				
Quality	Provide clean and serviceable facilities	Customer requests	Not determined	Not determined
Function	Facilities meet user requirements of all age groups	Customer requests	Not determined	Not determined
Safety	Ensure facilities comply with relevant safety standards and are free from hazards	Reported accidents	Not determined	Not determined
Technical Levels of Service				
Quality	Manage maintenance and renewal to achieve the agreed Level of Service	Conduct routine inspections, monitor maintenance requests and renewal plan	Maintenance requests prioritised and addressed according to hierarchy	Not determined
Function	Ensure facilities are accessible and operational	Facilities comply with the Building Code	Building non-compliances identified and included in Works Program	Not determined
Safety	Ensure facilities comply with relevant safety standards and are free from hazards	Conduct routine inspection to ensure compliance with current legislation and standards	Facilities comply with all relevant Australian and Safety Standards	Not determined
Internal Levels of Service				
Financial	Financial accountability	Compliance with Department of Local Government ratios	Asset Consumption Ratio >= 50% Asset Sustainability Ratio >= 90% Asset Renewal Funding Ratio >= 90%	ACR =68% ASR = 144% ARFR = 101%

In addition to an analysis of current and desired level of service, a hierarchy for criticality of building assets is below to score the criticality of the asset. This will allow the desired level of service to be adjusted to an acceptable level and ensure that funds are allocated to highest need assets.

Table 3 Criticality Hierarchy

		Level 1	Level 2	Level 3
Importance of Service	Importance of the asset to the Community. High being a facility the community considers is an essential service such as library, recreation centre.	3 - High Importance	2 - Moderate Importance	1 - Low Importance
High Profile/Visibility	Highly visible entrance statement to Town or high profile in the community for other reasons. eg. Courthouse Art Gallery	3 - High profile	2 - Moderate profile	1 - Low profile
Value of Asset	Based on the replacement value of the asset.	3 - High > $2.5m	2 - > $800K < $2.5m	1 - < $800K
Revenue Capacity	Assets that generate an income to offset expenses.	3 - greater than $100k	2 - Between $50k and $100k	1 - Less than $50k
Cultural & Heritage Status	Those assets with cultural importance or heritage significance.	3 - High profile	2 - Medium profile	1 - Low profile
Political Considerations	Asset that has political issues surrounding it due to location, function or other reason.	3 - High risk	2 - Medium risk	1 - Low risk
Community Utilisation	Usage of the facility by the local community and visitors..	3 - High Use	2 - Medium Use	1 - Low Use

4.0 Future Demand

4.1 Demand Forecast

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

Demand factor trends and impacts on service delivery are summarised in Table 4.

Table 4: Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection	Impact on services
Population	Port Hedland has an estimated 'total service population' of 19,216 persons, comprised of 14,624 permanent residents, 2,906 fly-in fly-out (FIFO) and contract workers and 1,686 short term visitors (AEC group, 2011).	Due to the dynamic nature of Port Hedland's economy and population growth, a population of 50 000 by 2031 has been planned for and even targeted in the Growth Plan.	Significant expansion and upgrades of services will be essential to accommodate this growth figure.
Demographics	Port Hedland is somewhat skewed to the younger age brackets, with 21% aged 0 to 14, 15% aged 15 to 24 and 22% aged 25 to 34. Different age groups have different needs and wants in relation to building related services. Also, 15% are of Aboriginal or Torres Strait Islander origin, who have specific cultural requirements.	Changes to demographics have not been predicted to change significantly or have not been investigated.	Significant changes to demographics will require a review of the appropriateness of the services delivered.
Standards	Compliance with Standards is addressed through Building Services with maintenance and renewal completed to the same standard.	Standards continue to evolve and will impact on the materials, facilities and services in use in the future.	Renewal programs may need to be brought forward where materials or facilities no longer comply with best practice or relevant standards.

4.2 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan in the following areas.

Table 5: Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
Energy Consumption	Increased costs may impact on funds available for asset management. Energy consumption rates and cost saving opportunities to be explored.
Modern building design, materials and construction method	Improvements to building methods for longer life cycle, reduced maintenance costs

4.3 Demand Management Plan

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

Opportunities identified to date for demand management are shown in Table 6.. Further opportunities will be developed in future revisions of this Asset Management Plan.

Table 6: Demand Management Plan Summary

Service Activity	Demand Management Plan
Planning	Further develop the Building Works Program to incorporate all maintenance, renewal, upgrade and capital works. Review the required Level of Service where statistical changes in population or demographics become available. Review the asset base for compliance on a regular basis and where changes in Building Code or Standards occur. Further develop plans based on changing use, recreational and lifestyle developments. Review the need for change based on changing legislative requirements. Identify opportunities to rationalise Building assets and to accommodate changes in agreed levels of service.

4.4 New Assets from Growth

New assets from growth will be modelled in future revisions of this Asset Management Plan.

Acquiring new assets will commit Council to fund ongoing operations and maintenance costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operating and maintenance costs.

5.0 Lifecycle Management Plan

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

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this Asset Management Plan are shown below.

Civic Building	Administration centre used for customer enquiries, Council meetings and staff office space.
Community Buildings	Various buildings including the Port and South Hedland libraries, Andrew McLaughlin Community Centre, Courthouse Art Gallery, Port Hedland Visitors Centre and others.
Depot Buildings	The two major functions of the buildings at the depot site are for engineering services and ranger services, with a single office building for both. Engineering buildings include workshop buildings and sheds, with the dog pound used by ranger services.
Housing	It is common practice for organisations in Port Hedland to provide staff housing. Town owned housing is used for internal staff (40) as well as General Practitioners (7).
Waste Management Facility	Buildings at the Waste Management facility are the weighbridge gate house, staff crib room and store combined with staff amenities.
Public Amenity Buildings	Ablutions in various locations, including Exeloo public toilets, an Eco Compost toilet and traditional type toilets.
Recreation Structures and Buildings	Includes Wanangkura Stadium, Faye Gladstone netball courts, Gratwick Aquatic Centre, South Hedland Aquatic Centre, the JD Hardie Centre, South Hedland Bowls Club and various club buildings and sport facilities.
Retirement Village	Stevens Street Retirement Village.

There is currently insufficient age data to use or present. Instead, the estimated remaining useful life is adopted in the financial analysis, along with the fair value.

5.1.2 Asset condition

The Town uses an Overall 1-5 Condition Rating Scale and this rating will be used in the Asset Management Plans.

Table 7: Condition Rating Scale

Rating	Generic Condition Rating Definitions Scale 1-5
1	Excellent – Asset is new or rehabilitated to new, or near new with no visible deterioration.
2	Very Good – Asset may show early stages of deterioration evident.
3	Good to Fair – Asset is showing obvious signs of deterioration and slight serviceability lost
4	Fair to Poor – Asset showing obvious signs of deterioration, requires high maintenance costs and serviceability loss
5	Extremely Poor – Severe deterioration, severe serviceability problems, very high maintenance costs.

The condition profile of the Town's assets is shown below, with the average condition weighted by replacement value.

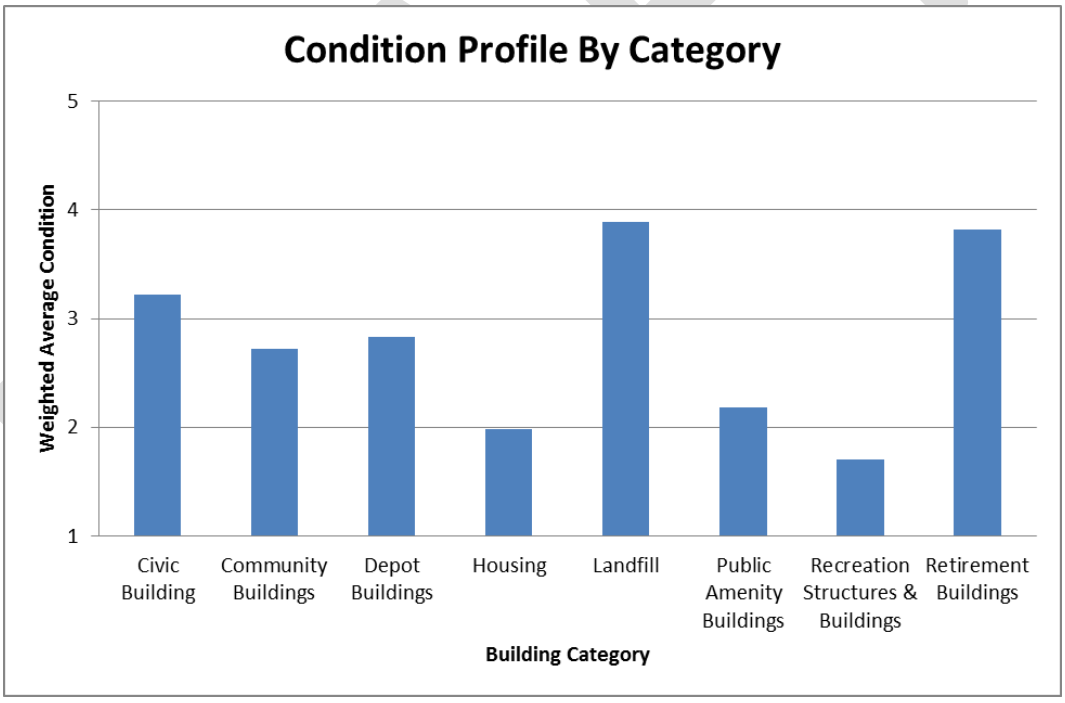

Figure 1.1 Asset condition profile by category

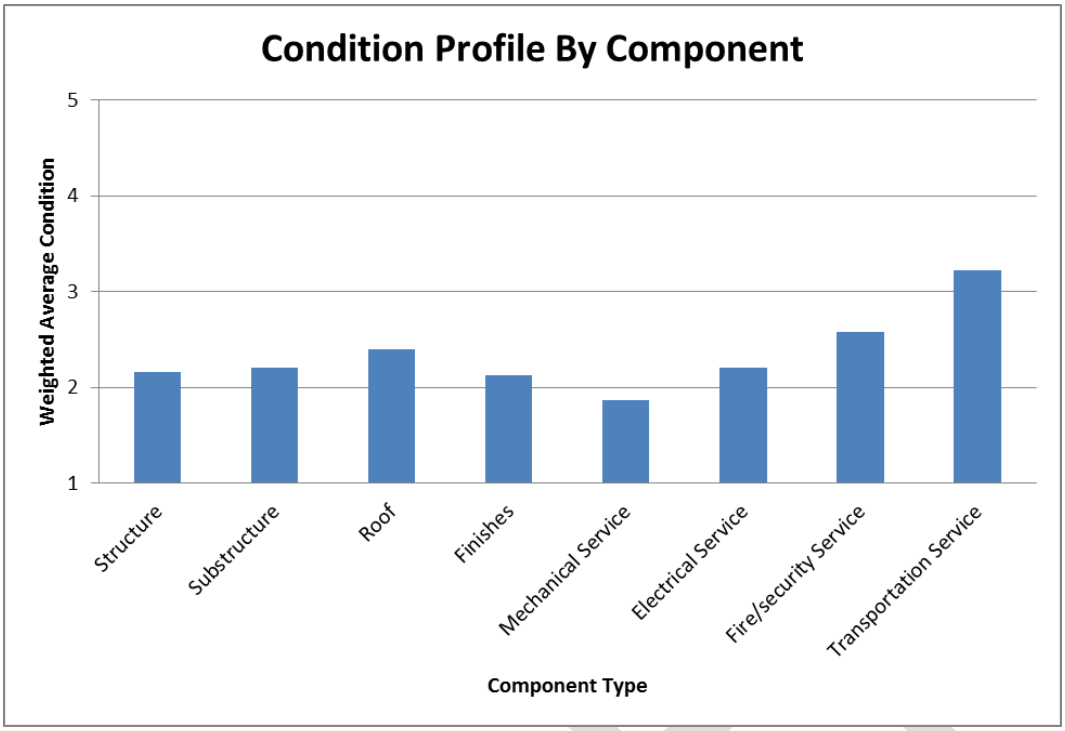

Figure 1.2 Asset condition profile by component

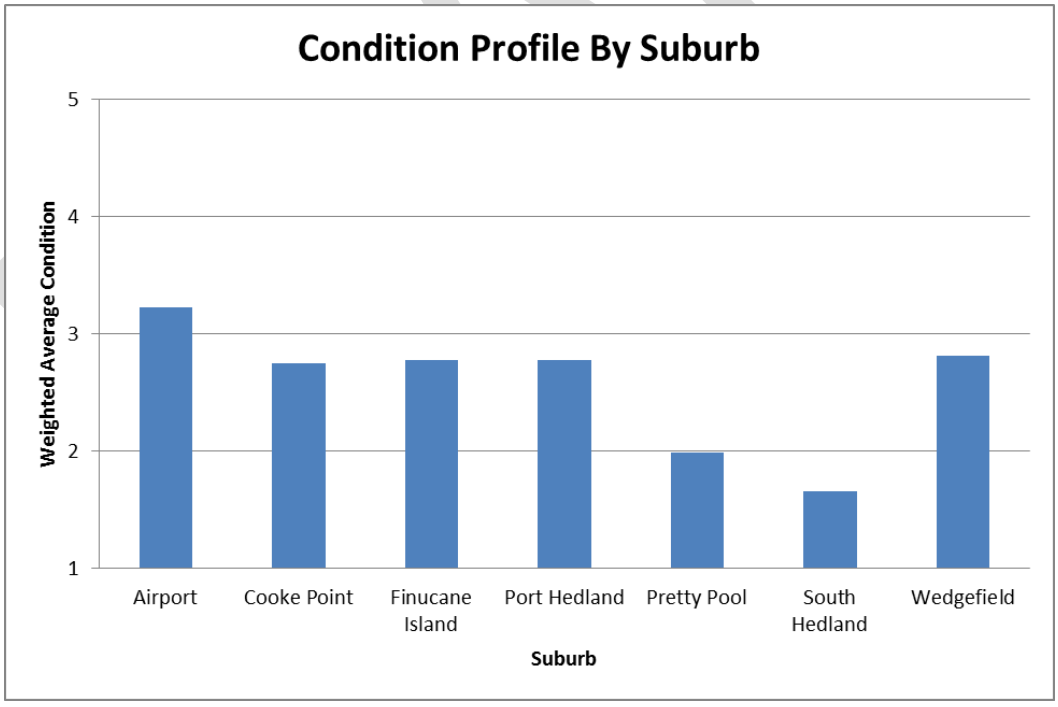

Figure 1.3 Asset condition profile by suburb

5.1.3 Asset valuations

The value of assets as at 2014 covered by this Asset Management Plan is summarised below. Assets are valued at brownfield rates.

Current Replacement Cost	$129,651,200
Depreciable Amount	$118,347,200
Depreciated Replacement Cost	$88,493,300 (Fair Value, see assumptions)
Annual Depreciation Expense	$3,295,254

The Town's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion. These ratios calculated below only include municipal buildings.

Measure	Result	Requirement	Advanced
Asset Consumption Ratio (ACR)	68%	≥50%	60-75%
Asset Sustainability Ratio (ASR)	144%	≥90%	90-110%
Asset Renewal Funding Ratio (ARFR)	101%	75-95%	95-105%

5.2 Risk Management Plan

A Risk Assessment Audit and Plan is due to be carried during the 2014/15 and information in relation to Buildings will be included in subsequent Asset Management Plans.

5.3 Routine Maintenance Plan

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

5.3.1 Maintenance plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

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

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

Cyclic maintenance is undertaken on a regular cycle such as repainting, air conditioning servicing etc. This work generally falls below the capital/maintenance threshold but may require a specific budget allocation.

Maintenance costs were sourced from past expenditure. This was obtained from general ledgers in the Town's SynergySoft accounting system. Maintenance has not been split between reactive and planned in prior years. Maintenance expenditure trends are shown in Table 8.

Table 8: Maintenance Expenditure Trends

Year	Maintenance Expenditure	
	Reactive	Planned
2011/12	$629,604	
2012/13	$583,064	
2013/14	$409,049	
2014/15 (budgeted)	$40,000	$1,436,667

Maintenance expenditure levels are considered to be adequate to meet required service levels. Future revisions of this Asset Management Plan will include linking required maintenance expenditures with required service levels.

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

5.3.2 Standards and specifications

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

5.3.3 Summary of future maintenance expenditures

Future maintenance expenditure is forecast to trend in line with the value of the asset stock. Future revisions of this Asset Management Plan will include modelling of asset additions from growth.

Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded are to be included in the risk assessment process in the infrastructure risk management plan.

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

5.4 Renewal/Replacement Plan

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

5.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the asset register. Candidate proposals are inspected to verify accuracy of remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority of these works will be based on a range of criteria which may vary depending on the nature, scale and location of the works proposed. A works evaluation method has not yet been adopted and has been identified in the improvement process.

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

5.4.2 Renewal standards

Renewal standards will apply as per 0 Maintenance Standards.

5.4.3 Summary of future renewal expenditure

Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 2. Note that all costs are shown in current 2013/14 dollar values.

Projected Capital Renewal expenditure.

Deferred renewal, i.e. those assets identified for renewal and not scheduled for renewal in capital works programs are to be included in the risk assessment process in the risk management plan.

Renewals are to be funded from the Town's capital works program and grants where available. This is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Town from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as Elected Member or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority of these works will be based on a range of criteria which may vary depending on the nature, scale and location of the works proposed. A works evaluation method has not yet been adopted and has been identified in the improvement process.

5.5.2 Standards and specifications

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

5.5.3 Summary of future upgrade/new assets expenditure

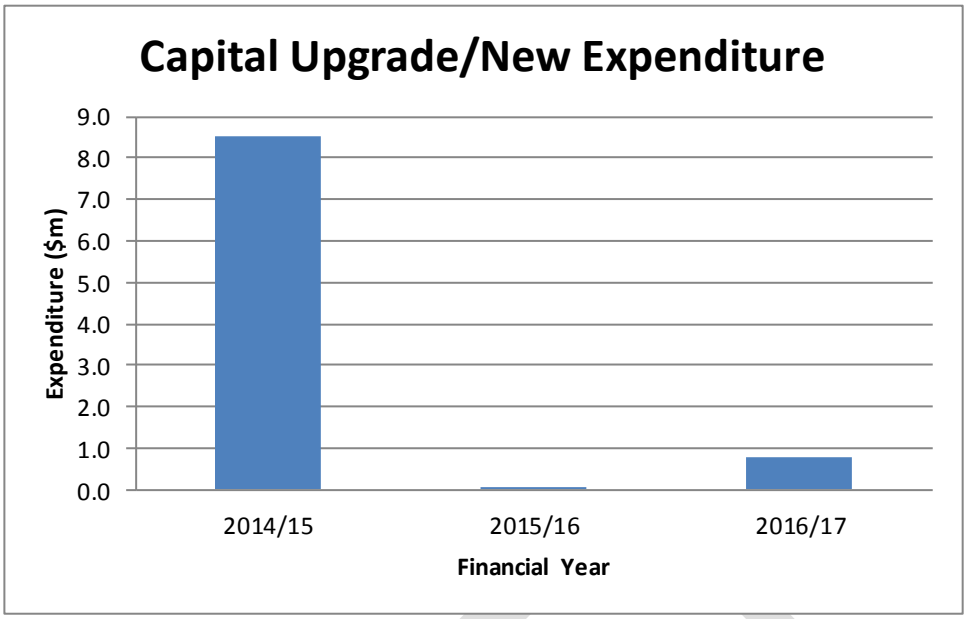

Figure 1: Planned Capital Upgrade/New Asset Expenditure

The planned upgrade/new capital works program is shown in Appendix C.

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

5.5.4 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition, and review of ownership or relocation. Individual Assets have not yet been identified for disposal; this will be included in future revisions of this Plan.

6.0 Financial Summary

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

6.1 Financial Statements and Projections

The financial projections are shown in Figure 2 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Better information will become available over time.

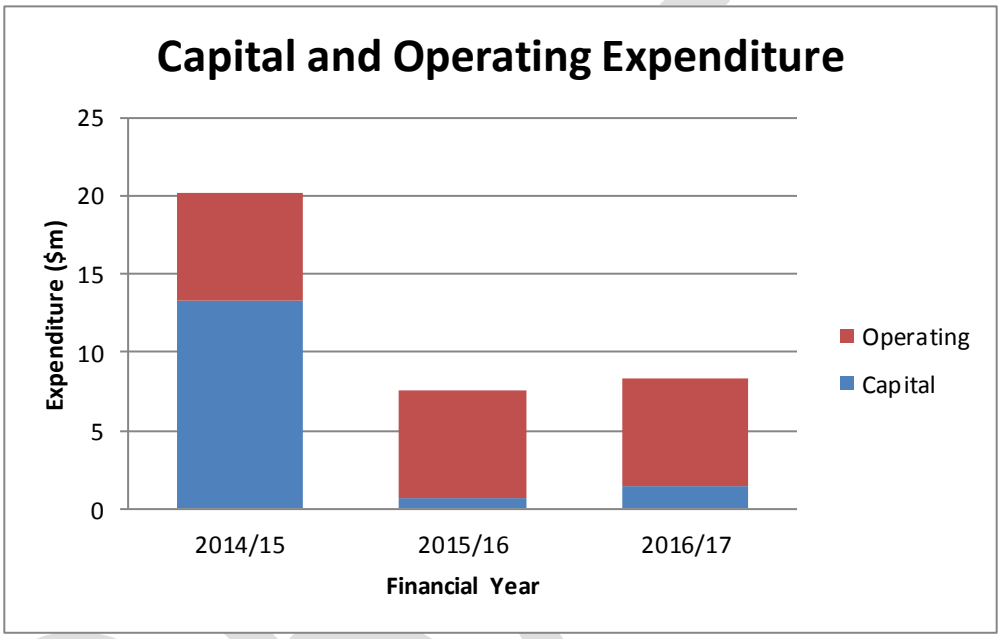

Figure 2: Planned Operating and Capital Expenditure

6.1.1 Sustainability of service delivery

There are two key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs and medium term costs over the 10 year financial planning period.

6.1.2 Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include maintenance and asset consumption (depreciation expense). The annual average life cycle cost for the services covered in this Asset Management Plan is $10,154,810.

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan is $11,603,555.

A gap between life cycle costs and life cycle expenditure gives an indication as to whether present consumers are paying their share of the assets they are consuming each year. The purpose of this municipal building Asset Management Plan is to identify levels of service that the community needs and

can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

For the 2014/15 financial year, the lifecycle expenditure exceeds the lifecycle cost by $1,448,746. This is due to works being completed to the civic centre. The lifecycle sustainability index is 114%.

Operational costs covered in this Asset Management Plan are customer service staff, cleaning, insurance, electricity and water (telecommunications was excluded). In the case of Wanangkura Stadium, South Hedland Aquatic Centre and Gratwick Aquatic Centre, the YMCA contract fee is included (the contract fee includes cleaning and customer service). The staff costs include the JD Hardie Centre, Port and South Hedland libraries, courthouse and visitors centre. Civic centre staff is excluded. The total operating costs after reimbursements for the 2013/14 financial year (with Wanangkura Stadium in operation for the full year) was $5,382,888.

6.1.3 Medium term – 10 year financial planning period

This Asset Management Plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 20 year period for input into a 10 year financial plan and funding plan to provide the service in a sustainable manner.

This may be compared to existing or planned expenditures in the 20 year period to identify any gap. In a core Asset Management Plan, a gap is generally due to increasing asset renewals.

Figure 3 shows the projected asset renewals in the 20 year planning period from the asset register. The projected asset renewals are compared to planned renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period as shown in Figure 2.

Table 10 shows the annual and cumulative funding gap between projected and planned renewals.

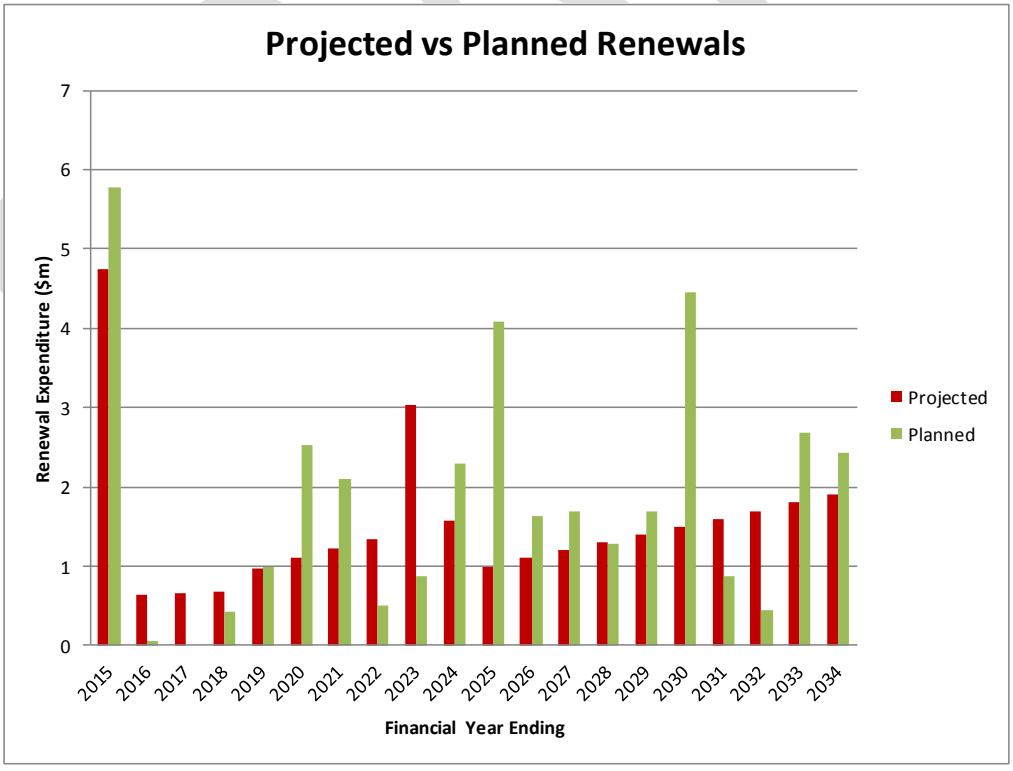

Figure 3: Projected and Planned Renewals

Table 10: Projected and Planned Renewals and Expenditure Gap

Year	Projected Renewals	Planned Renewals	Renewal Funding Gap	Cumulative Gap
2015	$5,774,298	$4,744,000	$1,030,298	$1,030,298
2016	$52,650	$650,900	-$598,250	$432,048
2017	$0	$662,786	-$662,786	-$230,738
2018	$420,390	$675,012	-$254,622	-$485,360
2019	$997,943	$981,705	$16,238	-$469,123
2020	$2,530,886	$1,099,156	$1,431,730	$962,607
2021	$2,096,120	$1,217,131	$878,990	$1,841,597
2022	$499,365	$1,335,645	-$836,280	$1,005,318
2023	$866,261	$3,029,071	-$2,162,809	-$1,157,492
2024	$2,293,236	$1,574,356	$718,880	-$438,612
2025	$4,075,478	$1,000,000	$3,075,478	$2,636,866
2026	$1,638,548	$1,100,000	$538,548	$3,175,414
2027	$1,700,356	$1,200,000	$500,356	$3,675,770
2028	$1,275,108	$1,300,000	-$24,892	$3,650,878
2029	$1,693,095	$1,400,000	$293,095	$3,943,973
2030	$4,462,326	$1,500,000	$2,962,326	$6,906,299
2031	$877,736	$1,600,000	-$722,264	$6,184,035
2032	$455,638	$1,700,000	-$1,244,362	$4,939,673
2033	$2,691,844	$1,800,000	$891,844	$5,831,517
2034	$2,431,216	$1,900,000	$531,216	$6,362,733

The methodology used to estimate the cost to maintain and renew building assets to a standard considered satisfactory to the organisation includes adoption of principles that:

- Assets do not have to be maintained in top order, ie, at a Level 1 Condition, all of the time in order to deliver acceptable levels of service; and
- It is not always necessary to completely rebuild an asset (foundations and all) at the end of its notional life cycle.

Whilst further community engagement to ascertain the condition level considered appropriate for each type of building asset is yet to be carried out, the notion that buildings at a level 3 condition and above are considered acceptable in terms of service level and deemed fit for purpose, has been adopted in this Asset Management Plan.

With the implementation of specialised Asset Management Software, Assetic over the next year, this methodology will be augmented with functionality and criticality matrix assumptions as well as more accurate valuation and condition rating calculations, providing better forecasting ability to allocate funds to the highest need assets.

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

A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate any funding gap.

The Town will manage the ‘gap’ by developing this Asset Management Plan to provide guidance on future service levels and resources required to provide these services, and review future services, service levels and costs with the community..

The Town's long term financial plan covers the first 10 years of the 20 year planning period. The total maintenance and capital renewal expenditure required over the 10 years is $30,297,818.

This is an average expenditure of $3,029,782. Estimated maintenance and capital renewal expenditure in the first 10 years is $3,073,643. The 10 year sustainability index is 101%.

6.2 Funding Strategy

Projected expenditure identified in Section 6.1 is to be funded from the Town's operating and capital budgets. The funding strategy is detailed in the Council's long term financial plan.

6.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by the Town and from assets constructed by land developers and others and donated to the Town. Future revisions of this Asset Management Plan will include modelling of asset additions from growth.

6.4 Key Assumptions made in Financial Forecasts

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

Key assumptions made in this Asset Management Plan are:

- For the purpose of renewal forecasting, building condition rating of 3 will be acceptable, (see Section 0)
- Condition and valuation is based on information from AssetVal as at 30 June 2014
- The following buildings have not been included as they were judged not to be Town assets:
    - District Medical Officer's Quarters
    - Cooke Point Caravan Park
    - Golf Clubhouse, Caretaker's Residence and Greenkeepers Shed
    - Yacht Club
- Total operating and maintenance costs are assumed to remain constant into the future, pending growth forecasting
- Discount rate of 5% used for net present value calculations.

Accuracy of future financial forecasts may be improved in future revisions of this Asset Management Plan by the following actions.

- Determine expenditure required to accommodate growth
- Determine renewal value of future upgrade projects
- Review maintenance information
- Review building running costs
- Review upgrade/expansion plan
- Establish building construction dates

7.0 Asset Management Practices

7.1 Accounting/Financial Systems

All local governments in Western Australia are required to prepare financial statements in accordance with the Local Government Act 1995, Local Government (Financial Management) Regulations 1996 and applicable Australian Accounting Standards (as they apply to local governments and not-for-profit entities).

Effective from 1 July 2012, the Local Government (Financial Management) Regulations were amended and the measurement of non-current assets at Fair Value became mandatory.

The Town commenced the process of adopting Fair Value in accordance with the Regulations and Buildings were revalued as at 30 June 2014 by qualified valuer AssetVal.

SynergySoft Version 10 is used as the Town's accounting and finance system. Historically, Synergy Asset Register module has been used for asset accounting purposes.

Implementation of Assetic Asset Management Software is scheduled to occur during the 2014/15 year with a view to have all asset classes recorded and maintained in this central strategic asset register by 2015/16. This Asset Management Software is an asset accounting tool that meets the requirements of the new Australian Accounting Standards for local governments as well as a central register for asset management data. Assetic will replace the current Synergy Asset Register module.

A re-structure to the existing general ledger/chart of accounts to facilitate improved asset management reporting has been identified.

Council has adopted a capitalisation materiality level of $5,000 for all asset classes (CF-1 Local Government Accounting Directions).

7.2 Asset Management Systems

The Town is currently implementing and Asset Management System, Assetic as detailed in 7.1.

Accountability and responsibility for asset management is detailed in the Asset Management Policy. Elected members ensure adequate resources are allocated, executive group ensure sound business principles are adopted and officers develop, maintain and review the Asset Management Plans.

7.3 Information Flow Requirements and Processes

The key information flows *into* this Asset Management Plan are:

- The asset register data on size, age, value, remaining life of the network;
- The unit rates for categories of work/material;
- The adopted service levels;
- Projections of various factors affecting future demand for services;
- Correlations between maintenance and renewal, including decay models;
- Data on new assets acquired by the Town.

The key information flows from this Asset Management Plan are:

- The assumed Works Program and trends;
- The resulting budget, valuation and depreciation projections;
- The useful life analysis.

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

7.4 Standards and Guidelines

- IPWEA “International Infrastructure Management Manual”
- Australian Accounting Standards

8.0 Plan Improvement and Monitoring

8.1 Performance Measures

The effectiveness of the Asset Management Plan can be measured in the following ways:

- The degree to which the required cashflows identified in this Asset Management Plan are incorporated into Council's long term financial plan and Strategic Community Plan;
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the Asset Management Plan;

8.2 Improvement Plan

The asset management improvement plan generated from this Asset Management Plan is shown in Table 11.

Table 11: Improvement Plan

Task No	Task	Responsibility	Timeline
1.	Establish Levels of Service measures and targets	AMWG	July 2017
2.	Establish Levels of Service performance	AMWG	July 2017
3.	Establish future demand projections	AMWG	July 2017
4.	Establish building construction dates	AME	July 2017
5.	Establish risk management plan	AMWG	July 2017
6.	Review maintenance and running costs	AME/AA	July 2017
7.	Establish Condition Assessment Regime	AMWG	July 2017
8.	Review creation/acquisition/upgrade plan	AMWG	July 2017
9.	Define asset management practices	AMWG	July 2017
10.	Increase level of detail with building componentisation	AME/AA	July 2017
11.	Define maintenance and capital works evaluation methods and programs	AME/AA	July 2017
12.	Review Levels of Service	AMWG	July 2017

8.2.1 Monitoring and Review Procedures

This Asset Management Plan will be reviewed every three years in conjunction with the Fair Value reporting process.

Sealed Roads
Asset Management Plan

Version R2

November 2014

Rev No	Date	Revision Details	Author
R1	1 July 2014	Draft for AMWG review	CT
R2	November 2014		CT

Contents

1.0 Executive Summary

1.1 Context

A large portion of traffic on roads within the town is categorised as heavy or commercial vehicles. This ranges from road trains up to 53.5 m long, predominately in Wedgefield, to construction and transport vehicles used to support the rapid growth of the town. Another factor influencing the asset management approach to the road network is the summer wet season, whereby roads need to be managed to withstand the impacts of heavy rainfall and cyclonic conditions.

1.2 What the Town Provides

The Town provides a sealed road network in partnership with Main Roads WA to enable the efficient transport of people and goods within the built up areas of Port Hedland, South Hedland and Wedgefield. There are also some sealed roads outside of the built up areas to service industry, pastoral stations and Indigenous communities.

The sealed road network is approximately 180 km long, with 45 km in Port Hedland, 91 km in South Hedland, 18 km in Wedgefield and 26 km in other areas.

Assets included in this plan incorporate these components:

- Pavement and subgrade
- Surface (asphalt, spray seal or brick paving)
- Kerb
- Shoulders
- Islands
- Signage and line marking

1.3 What does it Cost?

The annual costs to provide services at the current levels are:

Operational expenditure (14/15 Budget)	$275,600
Maintenance (14/15 Budget)	$909,495
Renewal (average)	$2,116,500
Total	$3,086,100

The Town's current annual funding is:

Operational expenditure (14/15 Budget)	$275,600
Maintenance (14/15 Budget)	$909,495
Renewal (14/15 Budget)	$1,115,000
Total	$2,300,095

This represents a current annual funding gap of **$786,005**. Note that this is based on a capital works program methodology that is under review and so may be subject to change.

Department of Local Government performance measures are discussed in 5.1.4 and summarised as:

Measure	Result	Requirement	Advanced
Asset Consumption Ratio (ACR)	84%	≥50%	60-75%
Asset Sustainability Ratio (ASR)	53%	≥90%	90-110%
Asset Renewal Funding Ratio (ARFR)	73%	75-95%	95-105%

These ratios, in particular the ASR and ARFR, suggest more work needs to be done to ensure the Town can sustainably fund sealed roads to maintain current service levels. Note these calculated ratios only include sealed road assets.

1.4 What we will do

The Town plans to develop, operate and maintain the sealed road network to achieve the following strategic objectives.

1. Ensure the sealed road network is maintained at a safe and functional standard as set out in this asset management plan.
2. Expand the sealed road network to accommodate planned growth.
3. Upgrade existing sealed roads in accordance with this plan and to accommodate planned growth.
4. Develop funding strategies for the operation, maintenance, renewal and upgrade of the sealed road network.

1.5 What we cannot do

The Town may not have enough funding to meet all services at the current or desired service levels or to provide new services. Works and services that cannot be provided under present funding levels will need to be identified together with options for their management.

1.6 Measuring our Performance

Quality

Sealed road assets will be maintained in a usable condition as per our service standard. Defects found or reported that are outside our service standard will be repaired. See our maintenance response service levels for details of defect prioritisation and response time.

Function

Our intent is that an appropriate sealed road network is maintained in partnership with other levels of government and stakeholders to facilitate efficient transport between destinations.

Sealed road asset attributes will be maintained at a safe level and associated signage and equipment be provided as required to ensure public safety. In accordance with the Town's Strategic Community Plan we will ensure that key functional objectives are met, including:

- Develop and maintain our infrastructure to ensure the long-term sustainability of our built and natural environment

The main functional consequence of the renewal and upgrade works plan is safer, smoother, more efficient travel.

Safety

We inspect all sealed roads regularly and prioritise and repair defects in accordance with our risk assessment procedures to ensure they are safe.

1.7 The Next Steps

The key actions resulting from this Asset Management Plan are:

- Define current Levels of Service
- Review sealed road network valuation and financial analysis
- Establish growth projections
- Review maintenance information and scheduling
- Review works program

1.8 Questions you may have

Why is there a funding shortfall?

Many of these assets, in particular the surface and kerbing components, are approaching the later years of their life and require replacement. Services from the assets are decreasing and maintenance costs are increasing, representing a high risk of failure to provide public assets that are safe and offer a basic level of service.

Most recently, a large proportion of the Town's sealed road network was constructed by external developers and gifted to the Town, often accepted without consideration of ongoing operations, maintenance and replacement needs.

What options do we have?

Resolving the funding shortfall involves several steps:

1. Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels;
2. Improving our efficiency in operating, maintaining, replacing existing and constructing new assets to optimise life cycle costs,
3. Identifying and managing risks associated with providing services from infrastructure,
4. Negotiating between service levels and costs to ensure that the community receives the best return from infrastructure,
5. Identifying surplus assets and disposal options to make savings in future operations and maintenance costs,
6. Consulting with the community to ensure that transport services and costs meet community needs and are affordable,
7. Developing partnership with other bodies, where available to provide services;
8. Seeking additional funding from governments and other bodies to better reflect a 'whole of government' funding approach to infrastructure services.
9. Council to prioritise funding to meet any gap.

What happens if we don't manage the shortfall?

Failure to manage the shortfall will result in one or more of the following:

1. Failure of the asset
2. Reduction of the level of service

What can we do?

The Town of Port Hedland will review its current management practices to ensure economical and sustainable practices are producing the best benefit to the Town and its communities. This will be done by working with the community to plan future services to match the community needs with ability to pay for services and maximise benefit to the community.

2.0 Introduction

2.1 Background

This asset management plan is to demonstrate responsible management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding required to provide the required levels of service.

The asset management plan is to be read in conjunction with the following associated planning documents:

- Town of Port Hedland Strategic Community Plan 2014-2024
- Long Term Financial Plan
- Asset Management Policy (9/010)
- Adopted Budget (Current Year)
- Town of Port Hedland Corporate Business Plan 2012-2016
- Pilbara's Port City Growth Plan
- Disability Access and Inclusion Plan

This asset management plan covers the following infrastructure assets:

A sealed road network comprised of 180 km of roads. These span over a wide area and exist in the following suburbs:

- Port Hedland
- South Hedland
- Wedgefield
- Boodarie
- Redbank
- Outlying communities and pastoral lands

These are in turn made up of roads sealed by asphaltic concrete and sprayed bituminous seal. Some road surfaces are sealed by brick paving.

Table 2.1: Assets covered by this Plan (from ROMAN II data and current unit rates)

Component	Length (km)	Area (ha)	Replacement Value ($M)
Pavement and Subgrade	180	133.7	200.5
Asphalt	22.7	16.8	10.0
Single Seal	134.3	101.8	36.2
Double Seal	5.1	2.6	2.1
Brick Paving	1.6	0.3	To Be Established
Kerb	243	NA	19.7
TOTAL			**267.9**

3.0 Levels of Service

3.1 Customer Research and Expectations

The Town conducts a Community Survey annually. This written survey polls a sample of residents on their level of satisfaction with the Town's services. Overall results of the survey indicate that the community believes the Town needs to improve with respect to *listening to the community* and *managing the town's finances*. The Town's performance overall was rated as average to poor, in contrast to both the 2012 and the 2010 survey results, where overall performance was seen to be good to average.

Local streets and major roads were given an importance level closer to 'Very Important' than 'Fairly Important' by the community. These were given the highest importance level of the transport items.

The most recent customer satisfaction survey reported satisfaction levels for the following services:

Table 3.1: Community Satisfaction Survey Levels

Performance Measure	Satisfaction Level				
	Excellent	Good	Average	Poor	Terrible
Major Roads			√		
Local Streets			√		

In the open ended responses, the condition of local streets (potholes) and the need for better maintenance were prominent themes.

See the Community Perceptions Report for more discussion and detail.

The Town uses this information in developing the Strategic Management Plan and in allocation of resources in the budget.

3.2 Legislative Requirements

The Town has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.2: Legislative Requirements

Legislation	Requirement
Local Government Act	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Roads Act	Sets out the rules to be followed and responsibilities of users of the road system and how the rules are enforced.
Occupational Safety and Health Act	Sets out the roles and responsibilities to secure the health, safety and welfare of persons at work.
Environmental Protection Act	Provides for the protection of the environment, established the Department of the Environment and defines its functions and powers.
Australian Standards	Provides guidance for transport asset managers in use of transport services such as AS 1742; Manual of Uniform Traffic Control Devices.
Australian Road Rules	The Australian Roads Rules are incorporated into State Traffic Regulations under the Road Traffic Act.

3.3 Current Levels of Service

The Town has defined service levels in two terms.

Community Levels of Service relate to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:

Service Criteria:	**Measure:**
Quality	Smoothness of roads
Quantity	Road width/design to suit capacity and access
Availability	Distance from a dwelling or place of business to a sealed road
Safety	Number of injury accidents

Appropriate level of service performance measures have not been finalised or adopted. Both current and desired levels of service will be addressed in future reviews of this plan, in conjunction with the appropriate community engagement.

The Town's current service levels are detailed in Table 3.3.

Table 3.3: Current Service Levels

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
Community Levels of Service				
Quality	Provide a smooth riding surface	Customer requests	Not yet determined	Not currently measured
Function	Ensure Town roads meet user requirements for travel time and availability	Community Survey rating responses	Not yet determined	Not currently measured
Safety	Provide roads free from hazards	Insurance claims relating to road hazards	Not yet determined	Not currently measured
Technical Levels of Service				
Quality	Ensure all roads are constructed to relevant standards	Extent of compliance	Not yet determined	Not currently measured
Function	Ensure service levels are met through maintenance and renewal planning	Maintenance service levels defined, maintenance and renewal plans are in place and budgeted	Not yet determined	Not currently measured
Safety	Ensure road pavement, marking and signage comply to safety standards	Extent of compliance	Not yet determined	Not currently measured
Internal Levels of Service				
Financial	Financial accountability	Compliance with Department of Local Government ratios	Asset Consumption Ratio >= 50% Asset Sustainability Ratio >= 90% Asset Renewal Funding Ratio >= 90%	ACR = 84% ASR = 53% ARFR = 73%

4.0 Future Demand

4.1 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan in the following areas.

Table 4.1: Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
Increase of vehicle size	Traffic loading from heavy vehicles increases
Decrease in wheel diameter (especially heavy vehicles)	Increased pressure applied to road pavement
Increase in acceleration and cornering ability	Stronger lateral forces on road pavement
Pavement stabilising techniques	Reduction in renewal cost, increase in physical life or both

4.2 Demand Management Plan

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

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisios of this asset management plan.

Table 4.2: Demand Management Plan Summary

Service Activity	Demand Management Plan
Urban and rural roads	Review of the road hierarchy with matched service levels, promote major transport routes and identify management options for low hierarchy roads. Heavy vehicle access is in line with Main Roads requirements.

4.3 New Assets from Growth

The new assets required to meet growth will be acquired from land developments and constructed by the Town. New assets from growth will be modelled in future revisions of this AMP.

Acquiring new assets will commit Council to fund ongoing operations and maintenance costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operating and maintenance costs.

5.0 Lifecycle Management Plan

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

5.1 Background Data

5.1.1 Physical parameters

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

Asphaltic Concrete Sealed Roads	Asphalt seal, base course and sub-base
Bituminous Spray Sealed Roads	Spray seal, base course and sub-base
Brick Paved Roads	Brick paving, bedding, base course and sub-base
Kerbing	Concrete kerb sections
Islands	Physical barriers between two opposing traffic lanes
Signage	All road related signage (except regulatory, which is managed by Main Roads)

The different components of a sealed road pavement have different lifecycles. The seal protects the base course and sub-base beneath it, which are of higher value and provide the load carrying capacity. This seal requires renewal at a greater frequency than the road base and sub-base. The base and sub-base lifespan can be shortened by severe loading such as from heavy vehicles. Keeping the seal in good condition limits moisture ingress. This in turn results in decreased incidence of potholes and less frequent renewal of the base and sub-base. The seal may be kept in good condition by a combination of filling potholes, filling cracks with a bituminous filler and renewal.

At present there is fair information available on original road construction dates. Information is still being collected on the dates the roads were last resealed and rehabilitated. Presently, reseals between 1991 and 2005 are stored in ROMAN II, with rehabilitations entered corresponding to the same period. The database is currently under review and will provide further information in future updates of this Plan.

Roadside kerbing is provided to control and guide vehicle movements, as well as to control stormwater runoff. Deterioration is due to chemical weakening, embrittlement and cracking of the concrete over time. Actual failure is typically caused by vehicles driving over it when it is in a vulnerable state.

Islands are another traffic control measure, used to separate traffic travelling in opposing directions in some situations. Signage and linemarking are the final tiers of traffic control.

Future revisions of this asset management plan will incorporate car parking.

The age profile of the Town's assets is shown below.

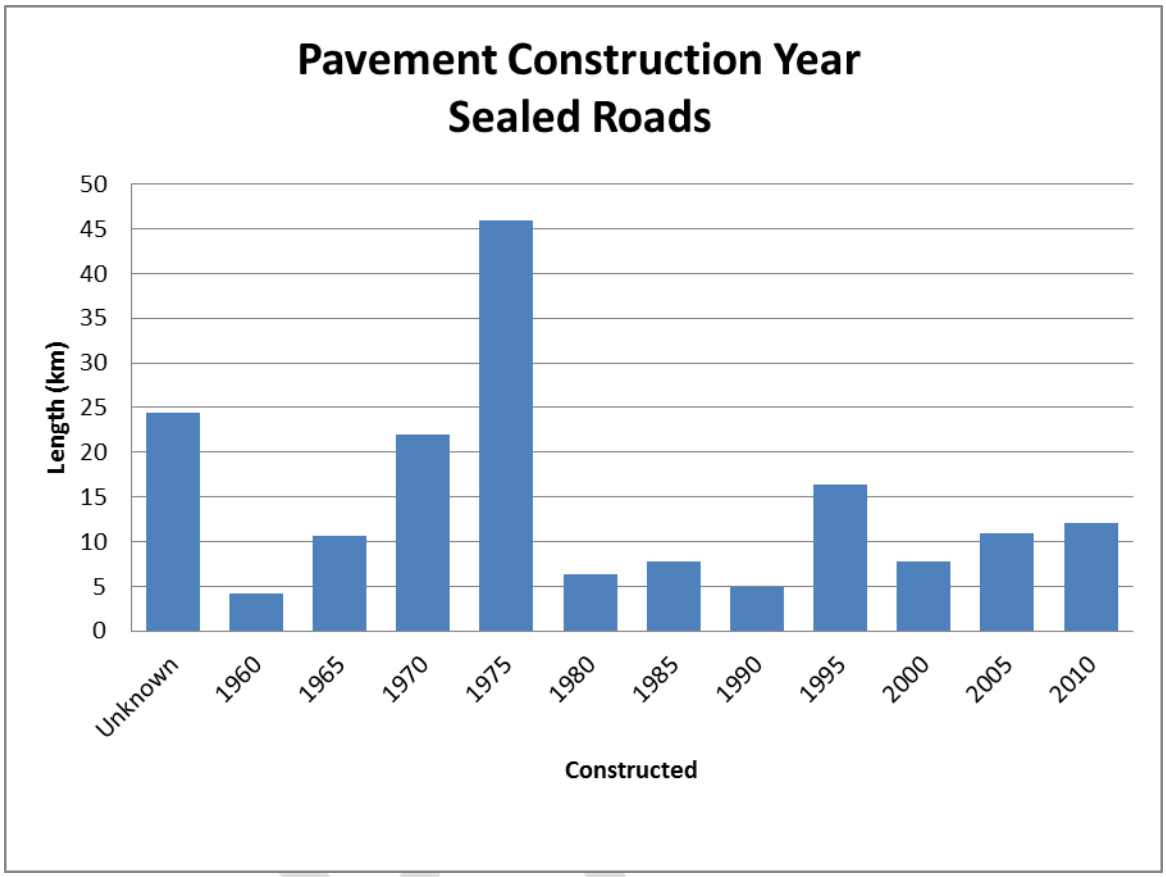

Figure 1: Asset Age Profile

The Town's road asset inventory is stored in ROMAN II, which can be viewed overlain onto Google Maps with RAMM GIS (part of ROMAN II).

5.1.2 Asset capacity and performance

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

Locations where deficiencies in service performance are known are detailed in Table 5.1.

Table 5.1: Known Service Performance Deficiencies

Location	Service Deficiency	Proposed Course of Action
Wedgefield (generally)	Road geometry inadequate, pavement in poor condition in several areas with potholing, shoving and rutting	Pinga Street identified for widening to two lanes each direction, funds permitting. Pavement investigations continuing
Wallwork Road	Severe aggregate flushing was reported, which would cause decreased skid resistance on a high traffic road	Investigate for addition to 2015/16 works program
Anderson Street	Road is excessively rough near the Port Hedland Boulevard shopping centre due to poor remediation by Water Corporation	Continue to liaise with Water Corporation regarding further remediation

The above service deficiencies were identified from local experience, road condition reports and programmed works.

5.1.3 Asset condition

Condition is measured using a 1 – 5 rating system, as recommended by the International Infrastructure Management Manual.[1]

Rating	Description of Condition
1	Excellent condition: Only planned maintenance required.
2	Very good: Minor maintenance required plus planned maintenance.
3	Good: Significant maintenance required.
4	Average: Significant renewal/upgrade required.
5	Poor: Unserviceable.

The road condition information was collected as detailed defect ratings from an external assessor in 2013. This information was used for both the surfacing and the pavement structure condition analysis, as detailed below.

For surfacing, the overall condition was taken to be the asphalt condition in the case of asphalt surfacing and the binder condition in the case of spray seals. The reason for this is as the bitumen ages, it oxidises and becomes brittle and hence more vulnerable to damage. When deciding whether to reseal a road section, traffic type and volume are taken into account as well. This method may be subject to change in future asset management plans.

The condition profile of the Town's pavement surfacing is shown in Figure 2.

[1] IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

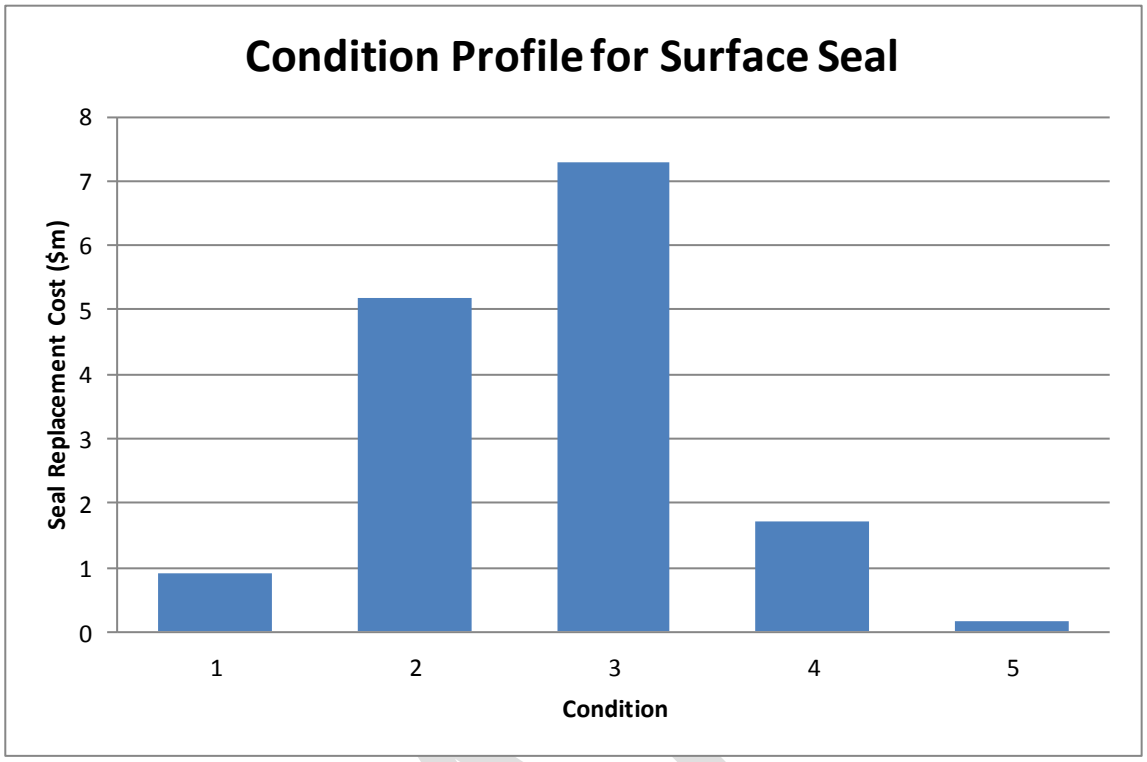

Figure 2: Pavement Surfacing Condition Profile

The overall pavement structure condition was taken to be the higher of the rating for rutting and a rating for roughness. The NAASRA value for roughness was converted to a rating by scaling, assigning a roughness value of 250 as condition 5. The roughness rating was higher than the rutting rating in almost all cases. Some rationalisation of the response based roughness data was undertaken, but more can be done to improve the accuracy further. Note that a more accurate assessment of pavement structural integrity is the Falling Weight Deflectometer test, which is normally performed on a case by case basis. As of yet no Falling Weight Deflectometer tests have been performed. In general, this methodology may be subject to change in future revisions of this Plan.

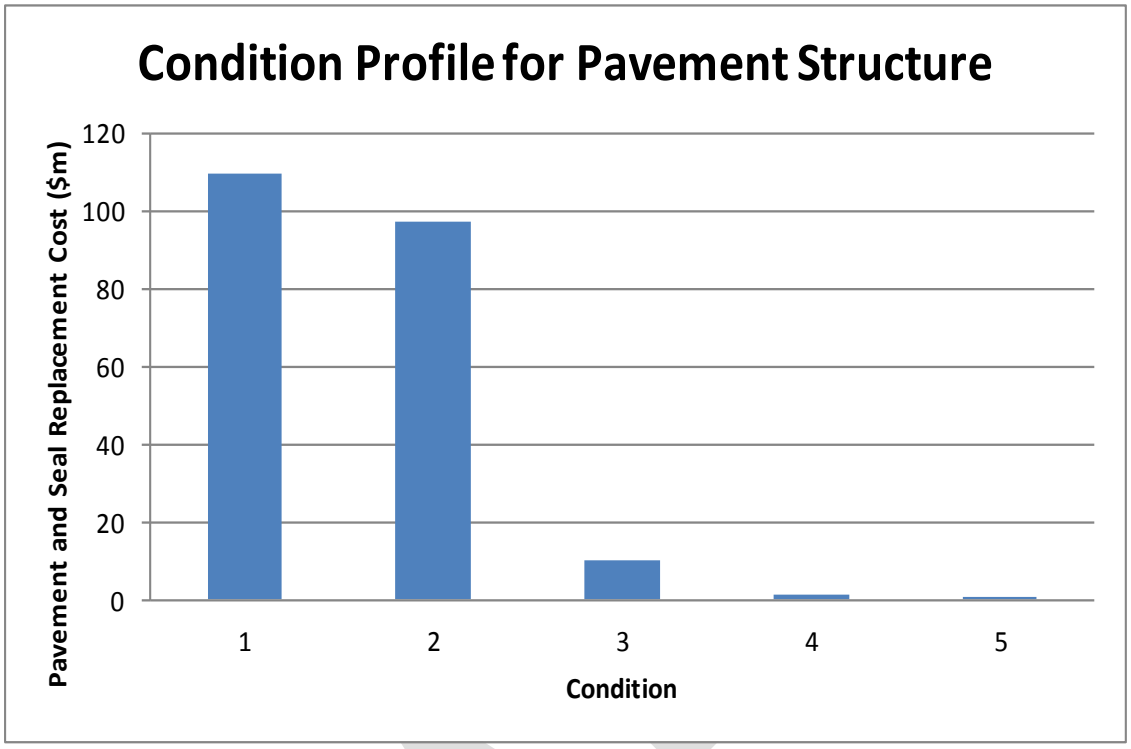

Figure 3: Pavement Structure Condition Profile

5.1.4 Asset valuations

The value of assets as at 20 June 2014 covered by this asset management plan is summarised below. Assets were last revalued in 1997. Assets are valued at brownfield rates.

Current Replacement Cost	$241,901,209
Depreciable Amount	$78,160,537
Depreciated Replacement Cost	$202,962,764
Annual Depreciation Expense	$2,116,500

The above figures have been derived from the ROMAN II Asset Register and cost rates derived from recent works completed, as opposed to Synergy Financial Asset Register. With the implementation of Fair Value, all road data and cost rates will be reviewed and transitioned into Assetic, to create a combined technical and financial Asset Register from 1 July 2015.

The Town's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion. These calculated ratios only include sealed road assets.

Measure	Result	Requirement	Advanced
Asset Consumption Ratio (ACR)	84%	≥50%	60-75%
Asset Sustainability Ratio (ASR)	53%	≥90%	90-110%
Asset Renewal Funding Ratio (ARFR)	73%	75-95%	95-105%

5.2 Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks to the Town. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks. A full assessment of risks will be undertaken this year.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the infrastructure risk management plan are summarised in Table 5.2.

Table 5.2: Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Roads	Inadequate supply of raw materials	High	Review levels of service, useful life, quantify requirements and conduct resource planning
Roads	Environmental impact on assets	High	Conduct risk analysis and identify potential impacts of extreme weather events
Roads	Loss of grant funding sources	High	Continue to lobby current and future governments for the continuation of grant funding.
Roads	Heavy vehicle traffic causing accelerated deterioration	High	Identify extent of impact, continue to negotiate with industry on funding agreements

5.3 Routine Maintenance Plan

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

5.3.1 Maintenance plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

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

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

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

Maintenance expenditure trends are shown in Table 5.3. Maintenance activities included are road patching, line marking, kerb patching and shoulder maintenance. The operational activity is road sweeping. Planned and reactive maintenance have not been separated.

Table 5.3: Maintenance Expenditure Trends

Year	Operational	Maintenance
2007/08	$295,788	$618,095
2008/09	$257,789	$350,567
2009/10	$348,454	$543,638
2010/11	$240,751	$677,956
2011/12	$163,288	$1,001,213
2012/13	$478,292	$680,637
2013/14	$151,899	$788,951
7 year Average	**$276,609**	**$665,865**

Future revision of this asset management plan will include linking required maintenance expenditures with required service levels.

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

5.3.2 Standards and specifications

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

- Main Roads WA
- Austroads
- IPWEA Guidelines for Subdivisions
- Relevant industry standards and guidelines
- Department of Environmental Regulation- Regulations and Guidelines

5.3.3 Summary of future maintenance expenditures

Future maintenance expenditure is forecast to trend in line with the value of the asset stock. Future revisions of this AMP will include modelling of asset additions from growth.

Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded are to be included in the risk assessment process in the infrastructure risk management plan.

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

5.4 Renewal/Replacement Plan

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

5.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the asset register. Candidate proposals are inspected to verify accuracy of remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority of these works will be based on a range of criteria which may vary depending on the nature, scale and location of the works proposed. A works evaluation method has not yet been adopted and has been identified in the improvement process.

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

Examples of low cost renewal include recycling and cement stabilisation of pavement as well as using recycled asphalt.

5.4.2 Renewal standards

Renewal work is carried out in accordance with relevant industry standards and guidelines as listed in Section 5.3.2.

5.4.3 Summary of future renewal expenditure

Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Figure 4. Note that all costs are shown in current 2014/15 dollar values.

The projected capital renewal program is shown in Appendix B.

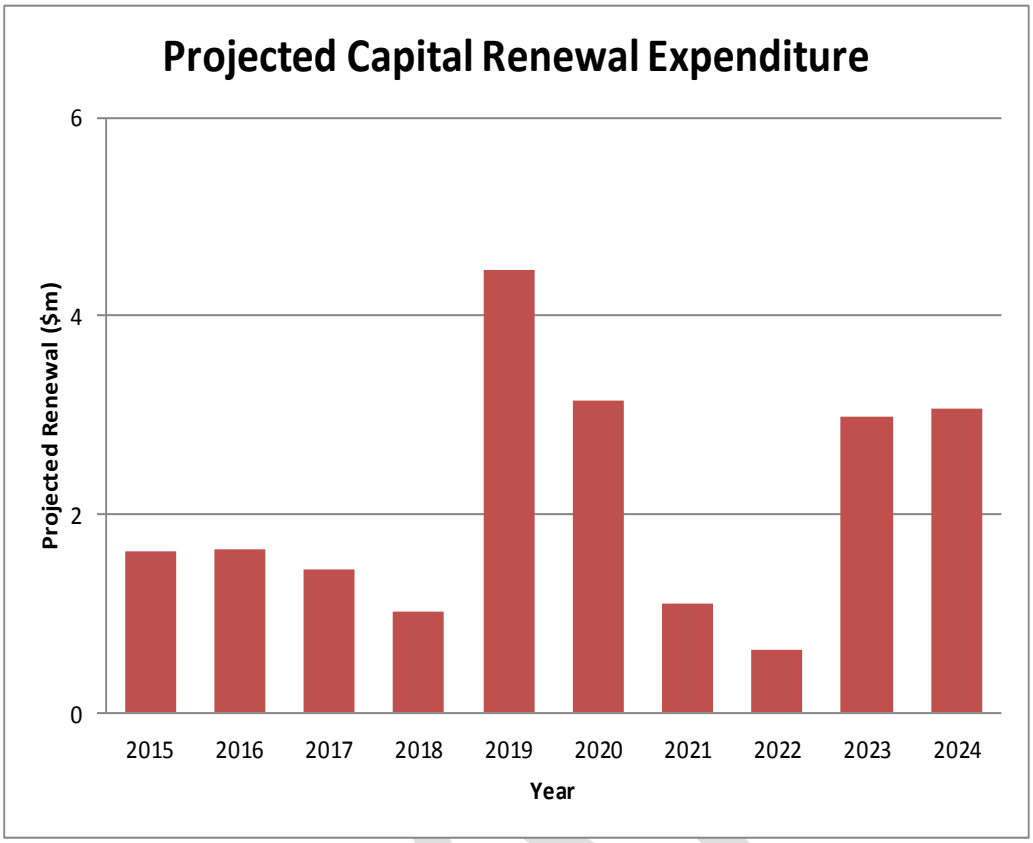

Figure 4: Projected Capital Renewal Expenditure

This projected expenditure is based on an approximate analysis and will be subject to change as better information and methodologies are implemented.

Deferred renewal, i.e. those assets identified for renewal and not scheduled for renewal in capital works programs are to be included in the risk assessment process in the risk management plan.

Renewals are to be funded from the Town's capital works program and grants where available. This is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Town from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as Elected Member or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority of these works will be based on a range of criteria which may vary depending on the nature, scale and location of the works

proposed. A works evaluation method has not yet been adopted and has been identified in the improvement process.

5.5.2 Standards and specifications

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for maintenance shown in Section 5.3.2.

5.5.3 Summary of future upgrade/new assets expenditure

Planned upgrade/new asset expenditures are summarised in Figure 5. The planned upgrade/new capital works program is shown in Appendix C. All costs are shown in current 2014/2015 dollar values.

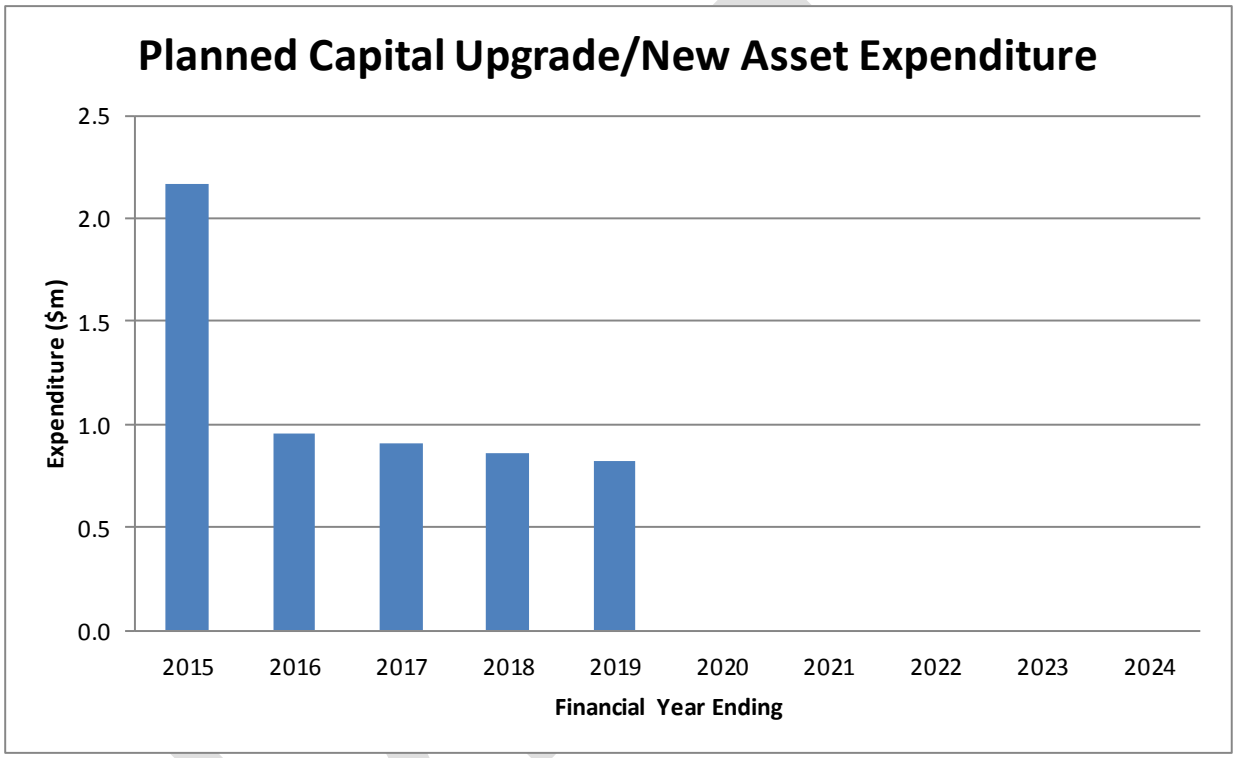

Figure 5: Planned Capital Upgrade/New Asset Expenditure

New assets and services are to be funded from the Town's capital works program, developer contributions and grants where available. This is further discussed in Section 6.2.

6.0 Financial Summary

This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on past construction and renewal dates, desired levels of service and current and projected future asset performance. Asset performance measuring is currently based on road condition only. In future revisions it will take into account traffic volumes and types (actual vs capacity).

6.1 Financial Statements and Projections

The financial projections are shown in Figure 6 for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

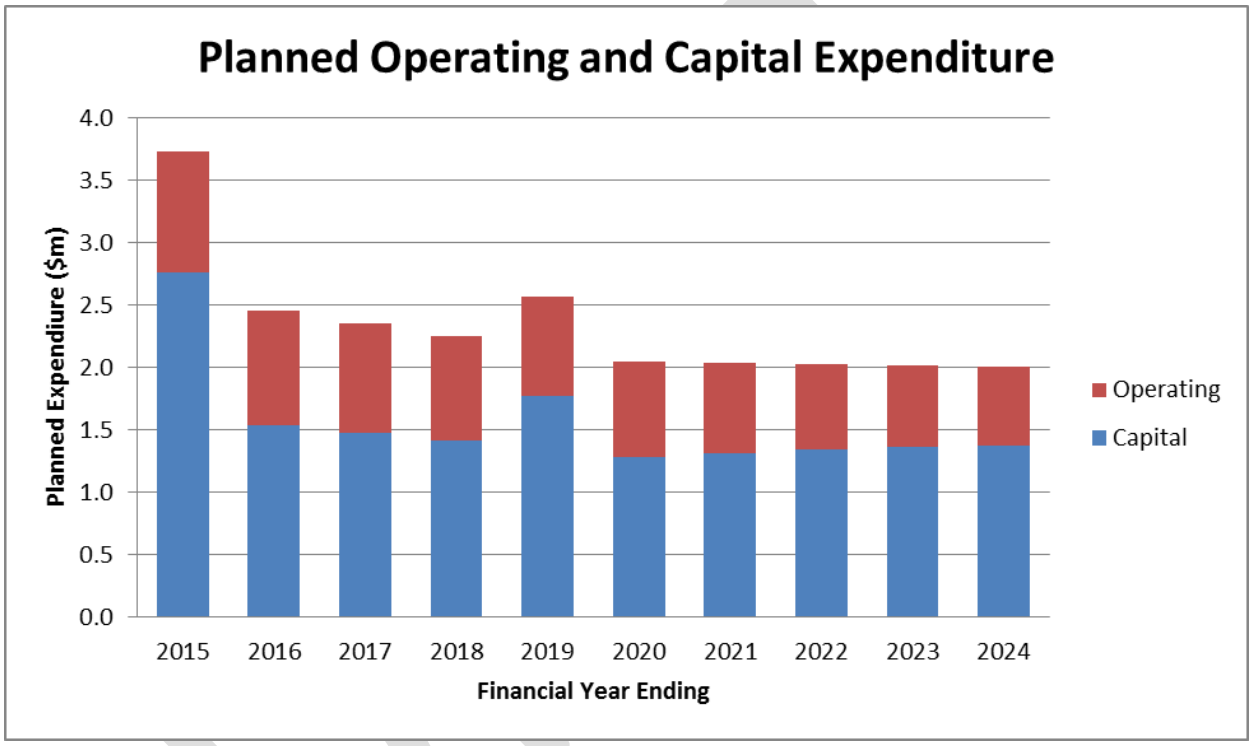

Figure 6: Planned Operating and Capital Expenditure

Note that all costs are shown in current 2014/15 dollar values.

6.1.1 Sustainability of service delivery

There are two key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs and medium term costs over the 10 year financial planning period.

6.1.2 Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include maintenance and asset consumption (depreciation expense). The annual average life cycle cost for the services covered in this asset management plan is $3,086,100.

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan is $2,300,095.

A gap between life cycle costs and life cycle expenditure gives an indication as to whether present consumers are paying their share of the assets they are consuming each year. The purpose of this sealed road asset management plan is to identify levels of service that the community needs and can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

The life cycle gap for services covered by this asset management plan is $786,005 per annum. The life cycle sustainability index is 75%.

6.1.3 Medium term – 10 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 20 year period for input into a 10 year financial plan and funding plan to provide the service in a sustainable manner.

This may be compared to existing or planned expenditures in the 20 year period to identify any gap. In a core asset management plan, a gap is generally due to increasing asset renewals.

Figure 7 shows the projected asset renewals in the 20 year planning period from the asset register. The projected asset renewals are compared to planned renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period as shown in Figure 7. Table 6.1 shows the annual and cumulative funding gap between projected and planned renewals.

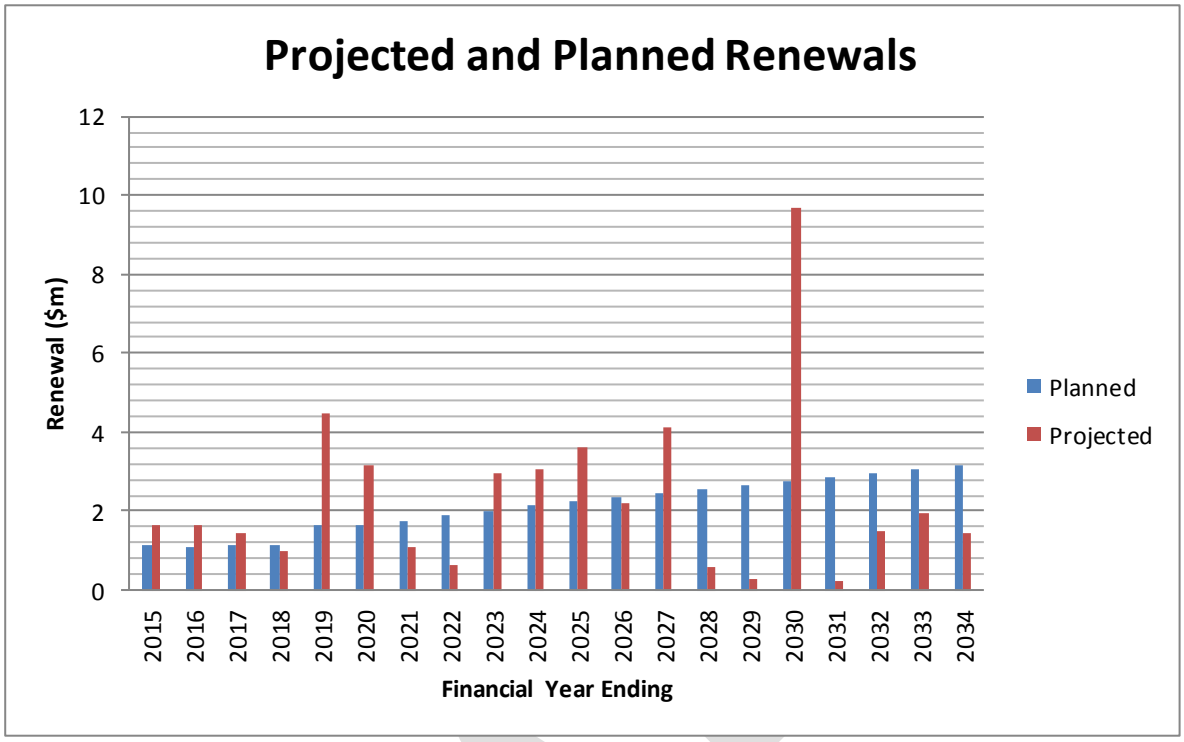

Figure 7: Projected and Planned Renewals and Current Renewal Expenditure

The increase in projected expenditure in 2030 is because many roads were constructed in 1979/80. Also, a pavement useful life of 50 years was used, resulting in significant expenditure being projected for this date. This projected expenditure is based on an approximate analysis and will be subject to change as better information and methodologies are implemented. Table 6.1 shows the gap between projected and planned renewals.

Table 6.1: Projected and Planned Renewals and Expenditure Gap

Year	Projected Renewals	Planned Renewals	Renewal Funding Gap	Cumulative Gap
2015	$1,633,071	$1,115,000	$518,071	$518,071
2016	$1,653,337	$1,112,500	$540,837	$1,058,908
2017	$1,439,672	$1,125,313	$314,359	$1,373,267
2018	$1,012,867	$1,138,445	-$125,578	$1,247,689
2019	$4,454,213	$1,654,598	$2,799,614	$4,047,303
2020	$3,141,101	$1,638,733	$1,502,368	$5,549,671
2021	$1,102,078	$1,762,050	-$659,972	$4,889,699
2022	$626,940	$1,886,067	-$1,259,127	$3,630,572
2023	$2,980,483	$2,010,804	$969,679	$4,600,252
2024	$3,057,030	$2,136,283	$920,747	$5,520,998
2025	$3,627,414	$2,236,283	$1,391,131	$6,912,129
2026	$2,205,424	$2,336,283	-$130,859	$6,781,270
2027	$4,140,668	$2,436,283	$1,704,384	$8,485,654
2028	$560,118	$2,536,283	-$1,976,165	$6,509,489
2029	$284,101	$2,636,283	-$2,352,182	$4,157,307
2030	$9,679,815	$2,736,283	$6,943,532	$11,100,839
2031	$205,385	$2,836,283	-$2,630,898	$8,469,940
2032	$1,471,707	$2,936,283	-$1,464,576	$7,005,364
2033	$1,927,707	$3,036,283	-$1,108,576	$5,896,787
2034	$1,434,136	$3,136,283	-$1,702,147	$4,194,640

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

A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate any funding gap.

The Town will manage the ‘gap’ by developing this asset management plan to provide guidance on future service levels and resources required to provide these services, and review future services, service levels and costs with the community.

Council’s long term financial plan covers the first 10 years of the 20 year planning period. The total maintenance and capital renewal expenditure required over the 10 years is $30,525,532.

This is an average expenditure of $3,052,553. Estimated maintenance and capital renewal expenditure over the 10 years is $25,004,534. The 10 year sustainability index is 82%.

6.2 Funding Strategy

Projected expenditure identified in Section 6.1 is to be funded from the Town's operating and capital budgets, as well as from the Asset Management Reserve. The funding strategy is detailed in the Council's 10 year long term financial plan.

Achieving the financial strategy will require a focus on investigating and applying for grant funding.

6.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by the Town and from assets constructed by land developers and others and donated to the Town. Future revisions of this AMP will include modelling of asset additions from growth.

6.4 Key Assumptions made in Financial Forecasts

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

This valuation was done using the asset register in ROMAN II as at 7/11/2014, which omits several new subdivisions including South Hedland CBD. In addition, the seal information is out of date, including seal type. There is a lack of kerb and line marking information in ROMAN II.

Some cursory checks were performed with overlays onto Google Earth imagery. New data is checked by Main Roads.

Key assumptions made in this asset management plan are:

- Half of the $5m allocated to Pinga Street Upgrade over the next five years is assumed to be for renewal. In reality this will be pending a pavement strength investigation.
- All of the unallocated Roads to Recovery funds are assumed to go towards renewal.
- Funding past 2023/24 is assumed to increase by $100,000 per financial year.
- Pavement and subgrade replacement cost of $150/$m^2$ in all cases (local experience)
- Cement stabilisation is the renewal method, to a depth of 100 mm typically but 150 mm for regional distributors and above. Rates as per current period contracts. Area rehabilitated per project assumed to be 5000 m^2 for determining rates (budget $600,000; same as Forrest Circle rehab performed in 2013)
- Asphalt rates as per current period contracts, with a progress rate of 200 T/day. Area resealed per project assumed to be 35,000 m^2 for determining rates (budget $500,000)
- Spray seal rates as per current period contract, (using Binder 100/00 with adhesion agent, neglecting cost to protect kerbs). Single coat equivalent area resealed per project assumed to be 78,000 m^2 for determining rates (budget $500,000)
- Kerb replacement cost as per Jetline Kerbing tender in 2014, with mobilisation/demobilisation proportioned based on a total length per contract of 2200 m (budget of $200,000)
- All spray seals were assumed to be double seals.
- Total Useful Lives as per Table 6.2 (from BSD valuation completed in 1997). Remaining Useful Lives were ESTIMATED using a formula in many cases (see below)

- The road age was used as the kerb age in all cases.
- Kerb lengths based on ROMAN II data, which ignores intersections in most cases (i.e. assumed to continue through intersections, resulting in an overestimated length)
- Brick paving substituted with 40 mm asphalt
- Islands and signage not included in valuation
- Total operation and maintenance costs are assumed to remain constant into the future, pending growth forecasting.
- A discount rate of 5% was used in present value calculation

Table 6.2: Total Useful Lives (years)

Component	Access Road	Distributor
Pavement Structure	50	50
Asphalt Surface	20	20
Spray Seal Top Layer	20	20
Double Seal Bottom Layer	20	20
Kerb	50	50

Pavement structures older than their TUL in Table 6.2 as at 2014 were given the following assumed remaining useful lives (multiplying by TUL in Table 6.2). In addition, road seals on pavement structures older than the corresponding seal TUL in Table 6.2 were given the following remaining useful lives:

Condition	Description	RUL as % of useful life
1	Excellent	100%
2	Very Good	75%
3	Good	50%
4	Average	25%
5	Poor	0%

Road condition was calculated based on detailed ratings as per Section 5.1.3. Kerbs with a calculated age older than the TUL were given an age as 50% of useful life if in condition 1, 100% if in condition 5.

Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions.

- Complete updating the asset register for new projects and subdivisions
- Review unit rates, in particular pavement reconstruction
- Establish seal renewal information for the past 10 years
- Continue finding road construction dates
- Revise renewal program based on recently completed condition assessment
- Check road seal type
- Establish upgrade/expansion plan
- Implement more sophisticated modelling software (e.g. dTIMS, Assetic MyPredictor)

7.0 Asset Management Practices

7.1 Asset Management Systems

Analysis for sealed roads was performed using a combination of spreadsheets and the ROMAN II system. ROMAN II is capable of storing information on roads and road related infrastructure. Allocated budgets were used for the maintenance and operating cost amounts, but as available information improves this may become more accurate.

Assetic myValuer is currently being procured, which includes default unit rates, standard deterioration models and the ability to determine fair value for many classes of asset including roads. Information from ROMAN II will be transferred to Assetic, which will become the permanent asset register. Initially, this will be performed manually.

Accountability and responsibility for asset management is detailed in the Asset Management Policy. Elected members ensure adequate resources are allocated, executive group ensure sound business principles are adopted and officers develop, maintain and review the asset management plans.

Ideally, Assetic myPredictor be adopted for performing long term works programming. This would be the most convenient option with the implementation of myValuer. Alternatively, dTIMS is another software package that can perform long term works programming (20 years) and scenario analysis for different levels of service. Another option is the latest NAMS.PLUS3, which includes some prediction modelling capability as well as aids for writing asset management plans.

7.2 Information Flow Requirements and Processes

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

- The asset register data on size, age, value, remaining life of the network;
- The unit rates for categories of work/material;
- The adopted service levels;
- Projections of various factors affecting future demand for services;
- Correlations between maintenance and renewal, including decay models;
- Data on new assets acquired by the Town.

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

- The assumed Works Program and trends;
- The resulting budget, valuation and depreciation projections;
- The useful life analysis.

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

7.3 Standards and Guidelines

- IPWEA “International Infrastructure Management Manual”
- Australian Standards
- Roman II guidelines, associated software and operating system
- Synergy Soft guidelines, associated software and operating system
- NAMS asset management template, manuals and processes

8.0 Plan Improvement and Monitoring

8.1 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 8.1.

Table 8.1: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1.	Define current Levels of Service for sealed roads • Review Statements • Measures • Targets • Performance	AMWG		
2.	Review future demand forecasts (planning)	AME/MID		
3.	Review road pavement valuation and financial analysis	AMWG	Rawlinsons Cost Estimation Guide or similar	
4.	Review risk management plan	AME/MID	Condition Survey	
5.	Review works program	AME/MID	Condition Survey	
6.	Add car parks and new roads to register	AME		
7.	Find past reseal dates to estimate replacement dates	AME	Purchase order records	
8.	Continue finding road construction dates to estimate replacement dates	AME	Drawing cabinets, Historical Society	
9.	Rationalise kerb information	AME		
10.	Find kerb reconstruction dates	AME	Past kerb program	
11.	Establish asset management processes	AME/AO		
12.	Develop road testing strategy based on expert advice	AME	Pavement specialist consultant	
13.	Review maintenance information and plan	AME/MID		
14.	Review running costs, i.e. sweeping	AME/MID		
15.	Improve efficiency with asset data collection processes	AMWG	A-Spec (suggested)	Completed
16.	Define maintenance and capital works	AME / MID		

	evaluation methods			
17.	Audit island inventory	AME	Aerial photography	Started
18.	Audit signage inventory	AME	iVision / Earthmine / street walk	
19.	Assess islands and signage	AME	Road condition assessment video / street walk	
20.	Value islands and signage	AME	Rawlinsons Cost Estimation Guide or similar	