



# Strategic Asset Management Plan

2020

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# I. INTRODUCTION

The Shire of Esperance encompasses over 44,000km<sup>2</sup> of land with a population of just over 14,000 and is located on Western Australia's South East coast 725km from the capital, Perth. The Shire's boundaries extend from East of Munglinup to Israelite Bay and north to the Daniell rail siding.



## 1.1 The Current Situation of Shire Assets

Fleet, Coastal Marine, Commercial Assets represent a capital investment or stewardship role of approximately over \$650 million worth with an operation budget in excess of \$40 million annually providing the desired levels of service that are managed sustainably by achieving the lowest whole of life cost.

The Shire's significant investment in assets enables the delivery of services to our community. The Shire of Esperance understands the importance of being able to monitor the effectiveness and performance of all assets in meeting expected and required service levels. The Shire monitors its assets in terms of:

- **Condition:** The actual physical and technical state of the asset
- **Functionality:** The ability of the physical infrastructure to meet service needs including social, environmental and economic performance
- **Capacity:** The ability of the physical infrastructure to meet demand

The details provided in the table below are based on the values in the asset register as at 1 July 2018 Shire asset valuation except Parks and Open Reserves and Coastal Marine Assets. Coast Marine and Parks and Open Reserves assets are revalued separately using 2019/2020 unit rates.

**Table 01 Shire of Esperance Asset Portfolio**

<b>Asset Class</b>	<b>Assets</b>	<b>Service Provided</b>	<b>Replacement Cost</b>	<b>Annual Consumption</b>
Transport	Roads, Roadside Furniture, Krebs, Bridges, Footpaths	Community transportation	\$ 441,987,000	\$ 10,000,000
Buildings	Buildings for which the Shire has operational, maintenance and renewal responsibilities.	Facility for community services and recreations	\$ 116,525,000	\$ 2,327,000
Parks & Open Reserves	Parks & Reserves Sporting grounds Playgrounds, Coastal assets, Irrigation Supply, Cemetery	Recreational, management of open space and reserves	\$ 28,199,000	\$ 1,554,000
Coastal Marine	Jetties, Boat ramps, and Sea walls	Recreational, coastal protection	\$ 17,854,000	\$ 210,000
Drainage	Storm Pits Pipes Sump, Culverts	Storm water management and flood mitigation	\$ 31,104,000	\$ 284,000
Fleet	Major Plant Minor Plant, Miscellaneous plant	Support delivery of Shire service and mobility of staff	\$ 12,973,000	\$ 1,208,000
Commercial	Airport, Waste Management, Leisure Centres	Waste management, Esperance Airport service, Sporting and recreational facilities	\$ 11,283,000	\$ 358,000
	<b>Total</b>		<b>\$ 659,925,000</b>	<b>\$ 14,723,000</b>

## 1.2 The Growth of Infrastructure and Future Demands

The majority of Shire's existing infrastructure was built or donated to support urban development and agricultural needs as the area expanded. Based on the model adopted by the Long term Financial Planning, it is expected a low growth of 0.2%, that is more consistent to the growth that Esperance has traditionally experienced. However, in the coming years it is anticipated that increased interest in the region will support substantial growth in the tourism industry and that paired with the capacity for agricultural and industrial demand.

## 1.3 Need for Asset Management Planning

Assets are fundamental to the overall Shire service delivery and planning. Taking effective responsibility for asset planning requires a strong and informed council and management team, in addition to an engaged community. The long-lived nature of many assets and the need for their ongoing renewal means that planning must be based on an understanding of the full costs throughout the life cycle of the assets.

In financial terms, these assets are referred to as fixed assets because unlike liquid assets, such as cash, their potential value is locked and realised over time. In the case of some assets, such as roads, bridges and buildings, this can be 50-100 years or more. The key focus of asset management is to realise value from the significant investment we make in these fixed assets. This Strategic Asset Management Plan forms part of Shire's objective on how to achieve of asset management and continuation of a process of improving to ensure that Shire is able to bring its Infrastructure and Asset



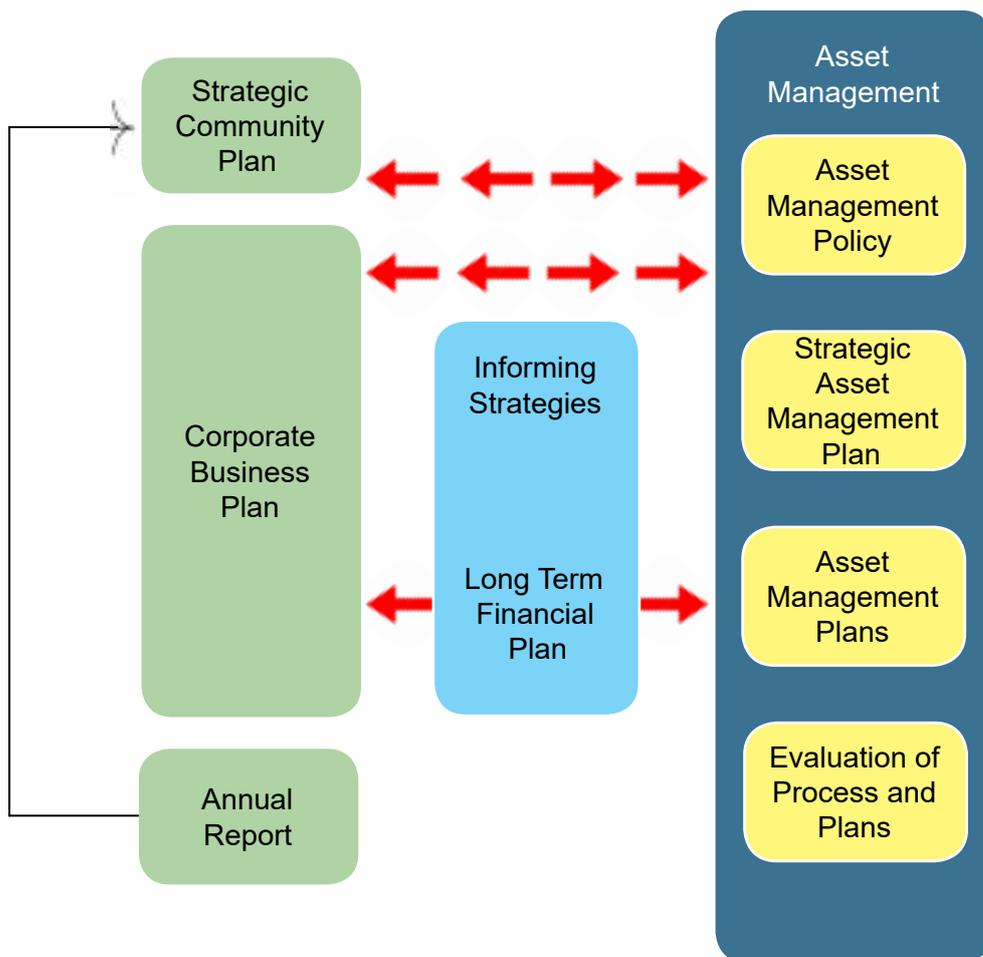
## 2. STRATEGIC ASSET MANAGEMENT PLAN (SAMP)

The purpose of the Asset Management Strategy is to enable the Shire’s Asset Management Plans (AMPs) to be achieved by enabling how the asset portfolio will meet the service needs of community and to ensure Asset Management (AM) is established as part of the Integrated plan as shown in Figure 01. This will align with AS ISO50000 series and framework and guidelines stipulated by the Government of Western Australia, Department of Local Government.

The key steps in this process include reviewing the strategic trends, assessing potential impacts on the asset stock, and assessing gaps in the asset knowledge required to prepare the Asset Management Plans. Shire of Esperance has already commenced analysing long term funding requirements for infrastructure, and the organisational focus on providing “sustainable infrastructure” is at a high level.

**Figure 01 Shire of Esperance Asset Management Integrated Plan**

(Source from Government of Western Australia Department of Local government, Asset Management Frame Work and Guidelines).



## 2.1 Key Strategy Areas

- Asset Management Plans
- Defining Levels of Service
- Linking to the Long Term Financial Plan
- Governance and Management Arrangements
- Data and System Requirements
- Improvement of Skills and Processes
- Evaluation

## 2.2 Asset Management Plan (AMP)

An AMP provides a long-term assessment of the asset activities and actions required to deliver services related to infrastructure. They define current levels of service and the processes that Shire of Esperance use to manage each of their asset classes. AMPs will be developed for all major asset classes included in Table 01.

### 2.2.1 Purpose of the AMP

The Purpose of the AMP is to outline the particular actions and resources required to provide a defined level of service in the most cost effective manner. The funding required to manage assets effectively in accordance with the Shire Corporate Business Plan objectives and the relevant service levels informs the Long Term Financial Plan. AMP includes:

- Reference to an asset register (which records all assets and their location, acquisition, disposal, transfer and other relevant transactions based on best current information and condition/performance)
- Defined levels of service for each asset class or particular actions required to provide a defined level of service in the most cost-effective manner
- Demand forecasting
- Risk management strategies
- Current Status of the assets based on their condition
- Financial information such as asset values, depreciation rates, depreciation values, capital expenditure projections for new assets as a result of growth, or to renew, upgrade and extend assets
- Strategies to manage any funding gaps
- Consideration of alternative service delivery solutions (leasing, private/public partnerships, shared service arrangements)
- Information on 'whole of life' costing including changes in service potential for assets
- A schedule for asset performance review and plan evaluation
- An asset management improvement program
- Clear linkages to other strategic documents such as the Corporate Business Plan, Long Term Financial Plan and Annual Budget
- Linkage between AMP and maintenance

## 2.2.2 Preparation of AMP

The Shire will follow the Guidelines of Institution of Public Work Engineers Australia (IPWEA) and International Infrastructure Management Manual (IIMM). The Institute of Public Works Engineering, Australasia conducts workshops and seminars to prepare AM Plans (NAMS.PLUS). Shire of Esperance is part of this program and has access to the templates produced by NAMS.PLUS. IPWEA.

Preparation of an AMP should be approached as a staged process. The ideal AMP will only be achieved after many stages of development and knowledge improvement. The first step in preparing an AMP is to document existing knowledge and processes and build up to a comprehensive plan through a process of continuous improvement over time. The AMP for each asset class will be reviewed every 3 years.

Shire works towards 10 year AMP covering all assets classes and feeding information in the Long Term Financial Plan. For Shire of Esperance infrastructures, AMP will be developed for all asset classes.

## 2.2.3 Risk Management

Incorporation of risk management in the AMP will be considered that:

- Risk management will be integrated with all service planning and delivery activities rather than an administrative “add on”. This means the risk register is an output from infrastructure asset management and the AMP so that it is integrated with corporate plans and 10-year financial plans.
- Infrastructure risk management planning will be consistent with any existing risk management policy, particularly the steps for risk identification, assessment, management and mitigation. The corporate risk register will be used as the tool for recording and reporting risk for infrastructure assets.
- Risk is both an opportunity and a responsibility that will be reflected in the AMP. Innovative solutions and community promotion of solutions will be encouraged.
- Systematic management of risk is a large task requiring a continuous improvement approach. Most service areas are already doing an excellent job of managing operational risk but not through a consistent framework of infrastructure AMP.
- Management of operational risk is a core line management function and is not an ‘add on’ overhead
- Strategic risk inherent in resource allocation will be communicated, measured and reviewed through the framework of planning and operational plans.



## 2.3 Expenditures

The nature of works undertaken by the Shire and knowledge of the type of expenditure is an important requirement for preparing an AMP. The AMP Plan distinguishes between operations, maintenance, capital renewal and capital upgrade or expansion. The expenditure types can be described as follows:

**Operating:** is the expenditure to provide a service.

**Maintenance:** is expenditure on an existing asset which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its economic life.

**Capital Renewal:** is expenditure to renew an existing asset which returns the service potential or the life of the asset to that which it had originally

**Capital Upgrade:** is expenditure to upgrade an existing asset to provide a higher level of service or the life of the asset beyond that which it had originally

**Capital Expansion:** is expenditure on extending an infrastructure network.



### 3. LEVEL OF SERVICE

Levels of service define the asset’s performance targets in relation to reliability, quantity, quality, responsiveness, safety, capacity, environmental impacts, comfort, cost/affordability and legislative compliance (IPWEA 2017).

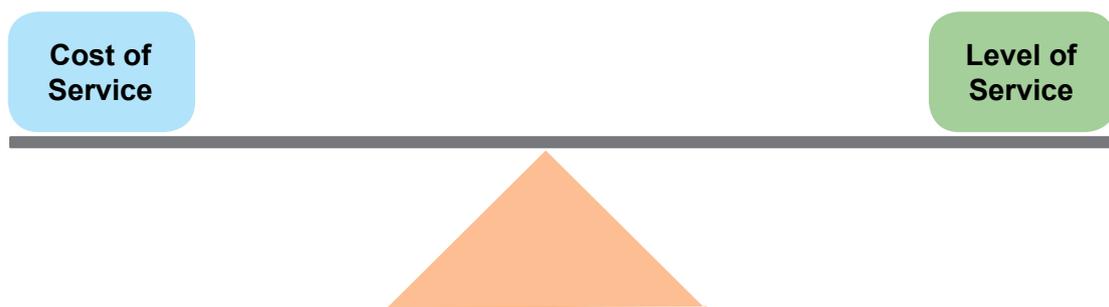
The Shire wants Esperance to grow and prosper over the next decade without diminishing the service level. The Shire will determine the level of service for each asset class to provide the best value for the community. To achieve the objective of asset management, the Shire has an understanding of the asset performance and its capacity to deliver those requirements to the agreed levels of service.

The below Figure 02 demonstrate Shire’s current approach of service delivery, the challenges and achievements required to reach the desired strategic approach to Asset Management within the Shire Of Esperance. The diagram on Appendix B is illustrated in details the process of the Shire’s approach in Level of Service and Service Delivery in Asset Management Process.

Levels of Service are the building blocks for infrastructure asset management. In order to achieve the optimum level of asset management objective, it is important to understand the communities infrastructure needs and ensure they are delivered at affordable levels.

**Figure 02                      Level of Service and Service Delivery in Asset Management Process**

The status of current level of service is reviewed via community perception survey. The results showed that Shire providing overall satisfactory service in terms of asset management. Survey data can be viewed in Shire’s website



## 4. INTEGRATION BETWEEN LONG TERM FINANCIAL

the Shire's Long Term Financial Plan (LTFP). The LTFP is the document which addresses the balance between future income and future expenditure. The Integrated Planning and Reporting Manual requires councils to prepare 10-year LTFP and that these are to be aligned with AMPs to ensure the Shire is financially sustainable and achieves the Strategic Community Plan

- Shire will develop and rolling long term, medium and short term capital work programme for all infrastructure assets
- Budget will be allocated for new works, capitals upgrades, renewals based on asset performance and the condition
- Operation and Maintenance budgets will be allocated meeting future demands and growths
- Risk and potential asset failures will be managed under Operation and Maintenance programme

## 5. GOVERNANCE AND MANAGEMENT ARRANGMENTS

Good governance and management arrangements ensure that asset management is adequately linked to service delivery. Governance and management arrangements within the SAMP shall be identified as:

- Asset Management roles and responsibilities of all level of organisations. Key roles and responsibility matrix attached in Appendix C.
- Address staff resourcing, funding and training needs.
- Implement internal/external audit and oversight mechanisms for Asset Management system and service delivery.
- Implement mechanisms for reporting AMP progress

These arrangements will be reviewed periodically.



## 6. DATA AND SYSTEMS

According to the WA Asset Management Frame Work 2011, Systems should be put in place for the collection and analysis of asset management data to ensure the development of efficient maintenance and capital works programs. Also, the system shall ensure that adequate links are made between asset management systems and financial data systems particularly in relation to the recording and management of capital expenditure and allocations between maintenance, renewal and upgrade.

Shire of Esperance has currently adopted the following software solutions:

- AssetFinda maintains the register of the Shire's Parks and Open Reserve, Buildings, Footpaths, Commercial Assets and Drainage Assets except storm water culverts. Data is hosted on the Shire's own server.
- RAMM maintains the register for the Shire's Road Network and Storm Water Culverts. Data is hosted on the RAMM Server in New Zealand.
- MEX is used to maintain fleet asses and is hosted locally.
- Intramaps is the Shire's Graphical Information Service (GIS) client. It is used to represent asset spatial data on a map; as well as providing point and click functionality for asset attributes. Community portal is available via the Shire website with limited information.
- CIVICA Authority manages the financial management system through the application BIZ. The resources management and customer management are manned by CIVICA Authority. It also links with BIZ and provides necessary linkage for asset finance and works programme.

### 6.1 Data Confidence Levels

In order to prepare detailed infrastructure asset management plans for its major asset classes, the Shire will continually improve the quality of data. The grades of confidence and current state of asset data are shown in Appendix D.

Current level of confidence in all data is reliable. As data is based on sound records and investigations, analysis, are documented properly, but has minor short comings.

### 6.2 Current Condition of Assets

The Shire has a planned regime to carry out rolling 3 year condition inspection on all assets.

The Shires recent asset inspections show that the majority of council assets are maintained in safe and good condition. A detailed condition will be available in respective AMP's.



## 7. EVALUATING

Key Performance Indicators (KPIs) developed to measure AM performance outcomes and informed decision making. Identification of AM improvement opportunities shall be done using results of; AM performance benchmarking against industry standards and AM maturity assessments against the AS ISO 55000 Asset Management System Standards.

- Shape the AM requirements and governance of the organisation for the future, ensuring the SAMP and AM practices:-
  - Meet all relevant legislative and regulatory requirements; and,
  - Achieve a level of AM maturity that reflect best practice and is in alignment with AS ISO55000 Asset Management System Standards.
- Undertake internal and external reviews and audits of AM processes.
- Perform benchmarking exercises to measure effectiveness of Shire's AM practices and seek opportunities for improvements.
- Promote a culture of continuous improvement to ensure asset management processes and practices evolve and continue to meet all relevant legislative and regulatory requirements, and reflect best practice.

Part of the Shire's evaluation mechanism to measure their effectiveness against the target outcomes, the following sustainability ratios will be measured against the set targets at each asset valuation period. Values can be found in Shire's Long Term Financial Plan.

Sustainability Ratio	Measuring Outcome	Target Level
Asset Consumption Ratio	The ratio between the Written Down Value and the Current Replacement Cost. This highlights the aged condition of Shire's stock of physical assets.	50 - 75%
Asset Sustainability Ratio	The ratio between capital investment over replacement or renewal of asset and depreciation expense. This will measure the extent to which asset managed by the Shire are being replaced as they reach the end of their useful lives.	90 - 110%
Asset Renewal Funding Ratio	The ratio between the Net Present Value of planned capital expenditure on renewal over the long term financial period and the required capital expenditure on renewal in the same period. This is a measure of the ability of shire to fund its projected renewals and replacement in future	95 – 105%

## 8. ASSESSMENT AND IMPROVEMENT

This SAMP will be reviewed every four years to ensure it aligns with any changes to the Shire's Strategic Community Plan, Corporate Business Plan and Integrated Plan Framework.. These reviews and assessments are consistent with Internal Audit/ Assessment, Management Review, Maturity Assessment intend to ensure the Shire SAMP is compliant to AS ISO55000 Asset Management System Standards.

### 8.1 System Maturity Assessment

The Shire is committed to manage its assets in accordance with recognised best practice and ISO 55000.

Periodically the Shire self-assess the level of maturity of the achieved by the asset management processes across the organisation. In 2015, Shire conducted an initial infrastructure asset management maturity (self-assessment) based on National Asset Management Framework guideline and ISO55001, which the Council supported a number of asset management improvement and recommendations included in Shire of Esperance asset Management Strategy 2015.

As a part of this strategy, Shire conducted the self-assessment using the NAMS+ along with ISO55001 guidelines. The recommendation as a result of the assessment shown in Appendix A and B and is planning to implement in the forthcoming time periods.

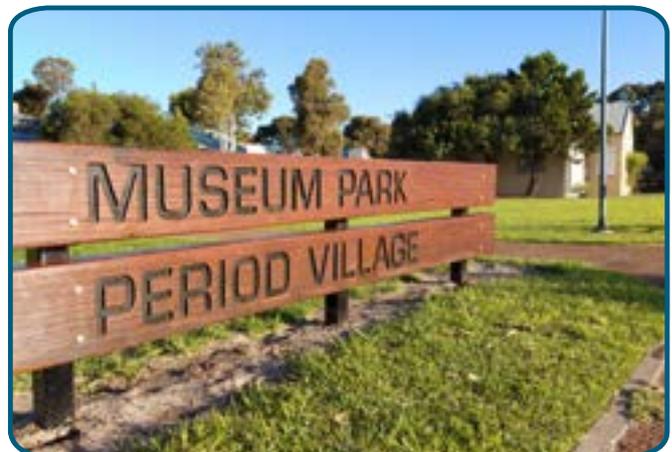


## 9. REFERENCES

- Government of Western Australia, Department of Local Government, Asset Management – Framework and Guidelines
- IPWEA, 2015, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia
- AS ISO 55000:2014 Asset Management – Overview, principles and terminology
- AS ISO 55001:2014 Asset Management - System Requirements
- AS ISO 55002:2019 Asset Management – Management System – Guideline for the application of ISO55001.
- Shire of Esperance Strategic Asset Management Plan 2017 – 2027
- Shire of Esperance Asset Management Strategy 2015
- Shire of Esperance Corporate Business Plan 2020/21 – 2023/24

## 10. APPENDICES

- A - Strategic Asset Management Improvement Recommendations based on AS ISO55002:2019
- B - Improvement Action Plan
- C - Level of Service and Service Delivery in Asset Management Process
- D - Shire of Esperance responsibility Matrix
- E - Data Confidence and Current Status of the Assets



## Appendix A - Observation and Recommendations based on ISO55002:2019

ISO 55000 Section	Element	Characteristic	Observation and recommendation	Importance
<b>Organisational Context</b>				
4.1	Understanding the organisation and its context	<ul style="list-style-type: none"> <li>Align SAMP with AM objectives are consistent with the organisational objectives</li> </ul>	<ul style="list-style-type: none"> <li>Ensure SAMP with AM objectives are consistent with the organisational objectives</li> </ul>	High
4.2	Understanding the needs and expectations of stakeholders	<ul style="list-style-type: none"> <li>Align Shire's AM roles and responsibilities for its requirement and relevance</li> <li>Identify the needs and expectations of Shire's external stake holders including local community, regulating authorities and asset users</li> </ul>	<ul style="list-style-type: none"> <li>Promote asset management among internal and external stake holders</li> <li>Develop Levels of Service for all Asset Classes maintained by the Shire</li> </ul>	Medium
4.3	Determining the scope of the asset management system	<ul style="list-style-type: none"> <li>Align the scope of the AM system with the SAMP and AM Policy</li> <li>Define asset portfolio covered by the SAMP</li> <li>Interactions with other management systems</li> </ul>	<ul style="list-style-type: none"> <li>Review and reconcile data for improving the quality of the asset data</li> <li>Asset data to be brought to a one system enabling easy access, maintenance and evaluation</li> <li>Asset data to be readily available with most recent updates for all custodians</li> <li>Introduce new technologies for improve road data quality</li> <li>Ensure each AMP and Asset Portfolio adequately documents the current asset management practice and understand across organisation.</li> <li>The SAMP shall be reviewed and updated periodically.</li> </ul>	Low
4.4	Asset management system	<ul style="list-style-type: none"> <li>Establish, implement , maintain and continually improve an Asset Management System (AMS) in accordance with ISO 55001</li> <li>Develop a SAMP, which includes documentation of the role of the AMS in achieving its AM objectives</li> </ul>	<ul style="list-style-type: none"> <li>Further develop and improvement SAMP aligned in accordance with ISO 55000 series</li> </ul>	High

<b>Leadership</b>				
5.1	Leadership and Commitment	<ul style="list-style-type: none"> <li>Ensure top management that an AM Policy, SAMP and AM objectives have been established and are compatible and integrated with organisational objectives</li> <li>Ensure that resources for AMS are available</li> <li>Communicate the importance of effective AM and of conforming to the AMS requirements</li> <li>promote cross-functional collaboration and continual improvement within the organisation</li> <li>ensure the approach for managing risk in AM is aligned with the organisation's approach for managing risk</li> </ul>	<ul style="list-style-type: none"> <li>Provide suitable training and mentoring programs to ensure skills level are update or current</li> </ul>	High
5.2	Policy	<ul style="list-style-type: none"> <li>Establish an AM Policy that is appropriate for the purpose of the organisation</li> </ul>	<ul style="list-style-type: none"> <li>Review and Update Policy to include ISO 55000 Asset Management Standards</li> </ul>	High
5.3	Organisational roles, responsibilities and authorities	<ul style="list-style-type: none"> <li>Ensure that responsibilities and authorities are assigned and communicated within the organisation</li> <li>Assigned the responsibility and authority for ensuring that AMS conforms to the requirements of ISO 55001</li> </ul>	<ul style="list-style-type: none"> <li>Review Roles and Responsibilities Matrix which includes Staff, Councillors and Stakeholders</li> <li>Include SAMP conforming to ISO 55000 series and ensure implementation of asset management system is aligned to risk management, legislation, policies and plans across council.</li> </ul>	High
<b>Planning</b>				
6.1	Actions to address risks and opportunities for the AM system	<ul style="list-style-type: none"> <li>Address the identified risks and opportunities to give assurance that the AMS can achieve its intended outcome and continual improvement</li> <li>Plan how to integrate and implement the actions into its AMP processes and evaluate the effectiveness of these actions</li> </ul>	<ul style="list-style-type: none"> <li>Include risks identified in the AMP's into the corporate risk register.</li> </ul>	Low

6.2.1	Asset management objectives	<ul style="list-style-type: none"> <li>Establish AM objectives at relevant functions and levels align with organization objective</li> <li>AM Objectives communicate to relevant stakeholders</li> <li>Are the AM Objectives review and updated as appropriate and document</li> </ul>	<ul style="list-style-type: none"> <li>Service review outcomes and level of service provided to be included in AMPs</li> <li>Review AM objectives better align with measureable targets</li> </ul>	High
6.2.2	Planning to achieve asset management objectives	<ul style="list-style-type: none"> <li>Integrate the AM planning to achieve the AM Objectives with other planning activities including financial, human resources, and other support functions</li> <li>Establish, documented, and maintained AMPs to achieve the AM Objectives</li> <li>Document the methods, criteria, processes, resources and life cycle management for decision making, prioritisation of the activities and resources to achieve its AMP(s) and AM objectives</li> <li>Document actions to address risks and opportunities, associated with managing the assets and how the risks can change over time</li> <li>Consider AM related risks in the organisation's risk management approach including contingency planning</li> </ul>	<ul style="list-style-type: none"> <li>Asset data to be brought to a standard system enabling easy access, maintenance and evaluation</li> <li>Review and maintain the Unit Rates and Useful Life tables</li> <li>Review and maintain the Asset Valuation Methodology Manual</li> <li>Review and maintain the Asset Management Financial Summary with forecasts for Maintenance, Operational, Renewal and New/upgrade requirements</li> <li>Integration Long Term Financial Plans with Asset Management Plan financial projections</li> </ul>	Medium
<b>Support</b>				
7.1	Resources	<ul style="list-style-type: none"> <li>Determine the resources needed for establishment, implementation, maintenance and continual improvement of the AM system</li> <li>Provide the resources required for meeting the AM Objectives and for implementing the activities specified in the AMP(s)</li> </ul>		High

7.2	Competence	<ul style="list-style-type: none"> <li>Determine the necessary competence of people under its control whose work affects the performance of assets, AM and the AMS</li> <li>periodically review current and future competency needs and requirements</li> </ul>	<ul style="list-style-type: none"> <li>Create a role based Skills Requirement Matrix</li> <li>Identify associated training requirements</li> <li>Ensure staff have the correct competency to carry out AMP actions.</li> <li>Conduct audits of staff competencies.</li> </ul>	High
7.3	Awareness	<ul style="list-style-type: none"> <li>Stakeholder's Awareness of the AM Policy, contribution, work activities, associated risk and opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>Improve communication to make people aware of their role and the effect on the AMS</li> </ul>	Medium
7.4	Communication	<ul style="list-style-type: none"> <li>Determine asset related communication regarding what it will communicate, when to communicate, with whom to communicate, how to communicate</li> </ul>	<ul style="list-style-type: none"> <li>Develop a communication plan to identify any gaps in awareness and informational needs regarding the AM.</li> </ul>	Low
7.5	Information Requirements	<ul style="list-style-type: none"> <li>consider the significance of AM information system for identifying risks, roles and responsibilities for AM</li> <li>AM information system consider the AM processes, procedures and activities to exchange of information with its stakeholders, including service providers</li> <li>Determine the attribute and quality requirements of identified information and how/when information is to be collected/analysed/evaluated.</li> <li>Determine requirements for alignment of financial and non</li> </ul>	<ul style="list-style-type: none"> <li>Asset data to be readily available with most recent updates for all custodians</li> <li>Identify and undertake a program of improvements to asset data including age, condition and remaining useful life</li> <li>Introduce new technologies for improve data quality</li> <li>Review and expand the usage of mobile and in field technologies</li> <li>Develop data collection plan to ensure asset register data is current.</li> </ul>	Medium
7.6.1	Documented Information: General	<ul style="list-style-type: none"> <li>Include documented information required by ISO 55001 and applicable legal and regulatory requirements</li> </ul>	<ul style="list-style-type: none"> <li>Develop and undertake a program of improvements to achieve ISO 55000 and its core level maturity status</li> </ul>	Medium

7.6.2	Documented Information: Creating and updating	<ul style="list-style-type: none"> <li>• Ensure that documented information includes identification and description</li> <li>• Ensure that documented information includes format and media</li> <li>• Ensure that documented information includes review and approval processes for suitability and adequacy</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and document a process to capture asset information relating to internal and external works</li> <li>• Develop documentation for all Asset Management Processes and procedures</li> </ul>	Medium
7.6.3	Documented Information: Control of documented information	<ul style="list-style-type: none"> <li>• Documented information adequately protected, address distribution, access, retrieval and use, address storage and preservation, including preservation of legibility, control of changes</li> <li>• Identify and control externally created documented information determined necessary for the planning and operation of the AMS</li> </ul>		Low
<b>Operation</b>				
8.1	Operational planning and control	<ul style="list-style-type: none"> <li>• Established criteria for the required processes to meet requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Develop Operational Management System.</li> </ul>	High
8.2	Management of change	<ul style="list-style-type: none"> <li>• Assess risks associated with any planned change, permanent or temporary, that can impact achieving the AM Objectives and review any unintended consequences of change, and take action to mitigate risks</li> </ul>	<ul style="list-style-type: none"> <li>• Integrate and align the Asset Management Risk with the Corporate Risk Management Processes</li> </ul>	Low
8.3	Outsourcing	<ul style="list-style-type: none"> <li>• Determine the processes and scope for sharing of knowledge and information between the organisation and its contracted service provider(s)</li> <li>• Determine the responsibilities and authorities for managing outsourced processes and activities and processes and activities to be outsourced</li> <li>• Ensure that the performance of the outsourced activities is monitored</li> </ul>	<ul style="list-style-type: none"> <li>• Include outsourcing requirements in Operational Management system</li> </ul>	Low

<b>Performance evaluation</b>				
9.1	Monitoring, measurement, analysis and evaluation	<ul style="list-style-type: none"> <li>Determine for performance evaluation, what and when needs to be monitored and measured, the methods for monitoring, measurement, analysis and evaluation to ensure valid results.</li> <li>Evaluate and report on asset performance, AM performance, the effectiveness of the AMS and managing risk and opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Develop monitoring, measurement, analysis and evaluation plan</li> <li>Review and reconcile data to ensure the quality.</li> </ul>	Low
9.2	Internal audit	<ul style="list-style-type: none"> <li>Conduct internal audits of the AMS at planned intervals to determine conformance of the AMS to its own requirements and ISO 55001</li> </ul>	<ul style="list-style-type: none"> <li>Develop and maintain a program for Asset Management system reviews and improvements</li> <li>Internal auditing to be put in place to satisfy the standard ISO55001</li> </ul>	Medium
9.3	Management review	<ul style="list-style-type: none"> <li>Review the organisation's AMS at planned intervals, status of actions from previous management reviews.</li> </ul>	<ul style="list-style-type: none"> <li>Review and report on the Asset Management Strategy Actions and KPI's within Pulse</li> </ul>	Low
<b>Improvement</b>				
10.1	Nonconformity and corrective action	<ul style="list-style-type: none"> <li>React to nonconformities or incidents occurring in its assets, AM or AMS by taking action and dealing with consequences and organisation implement any action needed</li> </ul>	<ul style="list-style-type: none"> <li>Develop Non conformity &amp; Corrective action system to continually improve AMS.</li> </ul>	Medium
10.2	Preventive action	<ul style="list-style-type: none"> <li>processes to proactively identify potential failures in asset performance and evaluate the need for preventive action</li> </ul>	<ul style="list-style-type: none"> <li>Establish processes to proactively identify failures in asset performance..</li> </ul>	Medium
10.3	Continual improvement	<ul style="list-style-type: none"> <li>improve the suitability, adequacy and effectiveness of its AM and the AMS</li> </ul>	<ul style="list-style-type: none"> <li>Investigate the use of advanced Asset Management processes including predictive modelling, risk management and optimised decision making techniques.</li> <li>Identify opportunities and efficiencies relating to improved or new technologies</li> <li>Identify opportunities for continually improving the AMS</li> </ul>	Medium

## Appendix B - Improvement Action Plan

No	Recommendation	Action	Outlook	Responsibility	Status
01	Promote asset management among internal and external stake holders	• Promote and announce trends, new development and improvement of AM across shire and outside stake holders	Short Term	MAP	In Progress
		• Convene AMP with relevant custodians and updated/ improved with current	Medium Term	MAP	In Progress
02	Develop Levels of Service for all Asset Classes maintained by the Shire	• Review Customer level of service of each asset class	Long Term	DA/MPG/MAO/MAD	Not Started
		• Review Technical level of service of each asset class	Long Term	DA/MPG/MAO/MAD	Not Started
03	Review and reconcile data for improving the quality of the asset data	• Update asset useful life based on condition and performance	Medium Term	TO	In Progress
04	Asset data to be brought to a one standard system enabling easy access, maintenance and evaluation	• Bring road infrastructure related data including drainage assets to RAMM	Medium Term	TO	Not Started
05	Introduce new technologies for improve road data quality	• Introduce LIDAR System for terrain mapping	Short Term	AD/MAP/MAD/TO	Not Started
		• Introduce GPR System identify for road conditions	Short Term	AD/MAP/MAD/TO	In Progress
		• Introduce Drone imaging and survey system for improving data quality	Short Term	AD/MAP/MAD/TO	In Progress
		• Improve road condition data quality using in-house road roughness testing	Short Term	AD/MAP/MAD/TO	In Progress
		• Improve digital work sheet for capital, operational and maintenance work	Short Term	AD/MAP/MAD/TO	In Progress

06	Further develop and improvement SAMP aligned in accordance with ISO 55000 series	<ul style="list-style-type: none"> <li>Develop a road map for Optimising compliance of the AMS with the Standard ISO 55002</li> </ul>	Long Term	AD/MAP/MAD/TO	Not Started
07	Review a Roles and Responsibilities Matrix which includes Staff, Councillors and Stakeholders	<ul style="list-style-type: none"> <li>Update Roles and Responsibilities Matrix consistently to match the current</li> </ul>		MAP	In Progress
08	Review and maintain the Unit Rates and Useful Life tables	<ul style="list-style-type: none"> <li>Review plant hire rate across the Shire and update unit rate table accordingly</li> </ul>		TO	In Progress
09	Review and maintain the Asset Valuation Methodology Manual	<ul style="list-style-type: none"> <li>Update Asset valuation methodology for 2021/2022 Valuation</li> </ul>	Short Term	TO/MAP	Not Started
10	Develop the integration of budgets and Long Term Financial Plans with Asset Management Plan financial projections	<ul style="list-style-type: none"> <li>Review LTFP to better align with capital/renewal work projected by AMPs and depreciation reserve</li> </ul>	Long Term	DA/MAP	Not Started
11	Develop competency evaluations. Review current competency for effectiveness. Develop competency audit process to adjust for changes resulting from the AMS and AMPs	<ul style="list-style-type: none"> <li>Review Fleet Management Plan</li> </ul>	Short Term	TO/MAP	Not Started
		<ul style="list-style-type: none"> <li>Develop Building Management Plan</li> </ul>	Short Term	TO/MAP	In Progress
		<ul style="list-style-type: none"> <li>Review Parks and Open reserve Asset Management Plan</li> </ul>	Short Term	TO/MAP/MPG	In Progress
		<ul style="list-style-type: none"> <li>Develop Road Asset management Plan</li> </ul>	Short Term	TO/MAO/MAP	In Progress
		<ul style="list-style-type: none"> <li>Develop Commercial Asset's Asset Management Plan</li> </ul>	Medium Term	TO/MAO/MAP	In Progress
		<ul style="list-style-type: none"> <li>Develop Coastal Marine Asset Management Plan</li> </ul>	Medium Term	TO/MAO/MAP	In Progress
		<ul style="list-style-type: none"> <li>Develop Drainage Asset Management Plan</li> </ul>	Medium Term	TO/MAO/MAP	In Progress

12	Identify and undertake a program of improvements to asset data including age, condition and remaining useful life	<ul style="list-style-type: none"> <li>• Further Training on using of mobile platform of AssetFinda and Pocket RAMM among all the asset management personals</li> </ul>	Short Term	MAP/TO	In Progress
		<ul style="list-style-type: none"> <li>• Further training on desktop version of AssetFinda and Pocket RAMM asset management systems</li> </ul>	Short Term	MAP/TO	In Progress
		<ul style="list-style-type: none"> <li>• Introduce Drones for condition monitoring where necessary</li> </ul>	Short Term	MAP	Not Started
		<ul style="list-style-type: none"> <li>• Conduct Data accuracy audits</li> </ul>	Short Term	MAP/TO	Not Started
13	Develop documentation for all Asset Management Processes and procedures	<ul style="list-style-type: none"> <li>• Develop asset management operational plans for each major asset class</li> </ul>	Long Term	TO/MAP	Not Started
14	Integrate and align the Asset Management Risk with the Corporate Risk Management Processes	<ul style="list-style-type: none"> <li>• Review the risk registers for each asset class align with the corporate risk management process</li> </ul>	Medium Term	TO/MAP	Not Started

MAP - Manager Asset Planning

DA - Director Asset Management

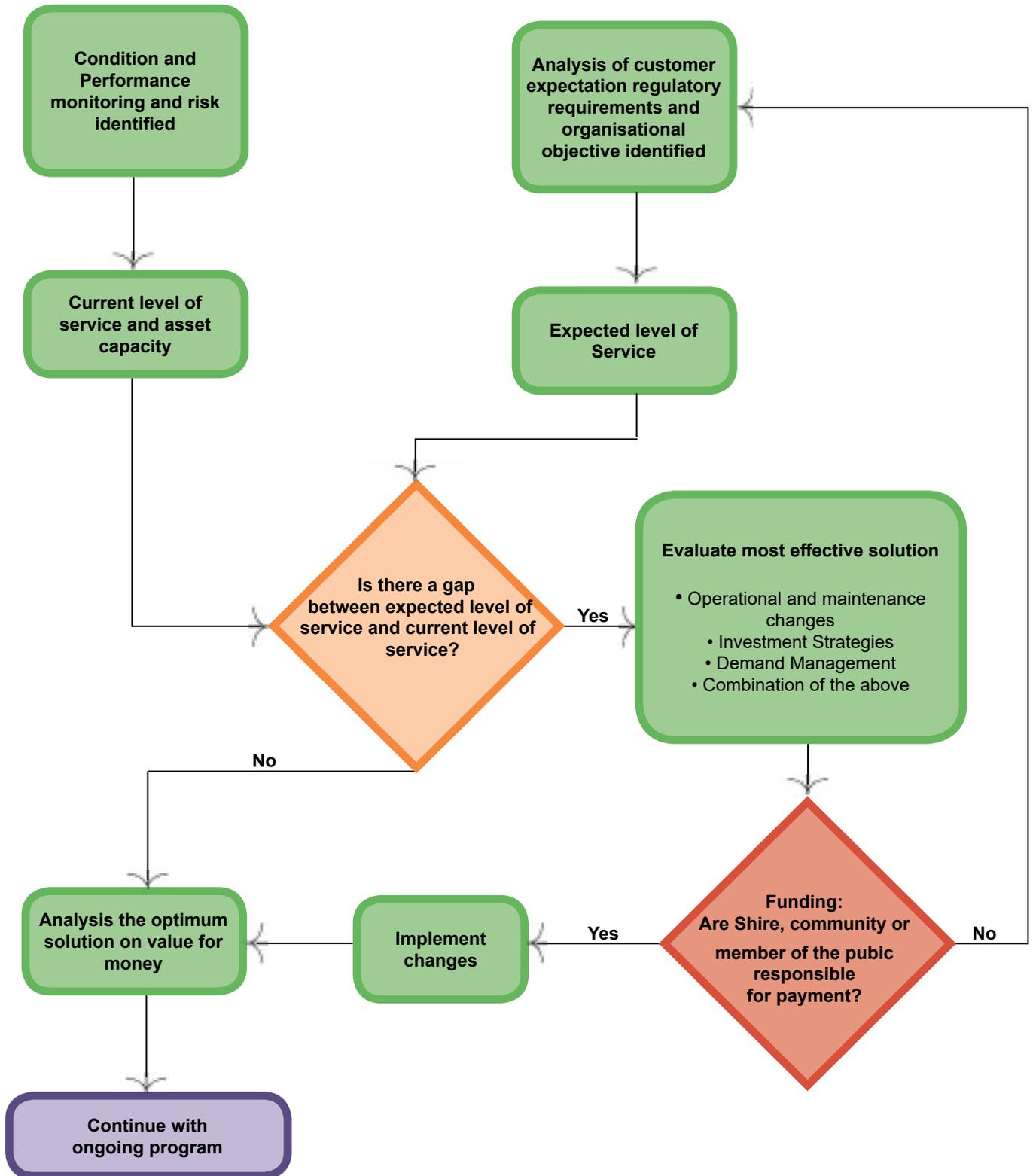
MPG - Manager Parks and Gardens

MAD - Manager Asset Development

MAO - Manager Asset Operations

TO - Technical Officer

## Appendix C -Level of Service and Service Delivery in Asset Management Process



## Appendix D -Shire of Esperance Responsibility Matrix

Stake Holders	Planning								Aquisition				Operation					Disposal				
	Strategic Community Plan	Corporate Business Plan	Long Term Financial Plan	Operation Plans	Asset Management Plans	Asset Information Systems	Asset Information	New Asset / Upgrade Program	Asset Renewal Program	Capital Works Delivery	Contributed Assets	As Constructed Submissions	Asset Capitalisation	Asset Operations	Reactive Inspections	Incident Inspections	Risk Inspections	Condition Inspections	Asset Maintenance	Disposal Program	Physical Disposal	Financial Decommissioning
Shire Councillors	+	+																				
Chief Executive Officer	+	+	+	+									+									+
Director Asset Management	+	+	+	+	+	+	+	+	+	+	+	+	+	+								+
Director External Services	+	+	+	+	+	+																
Director Corporate Community Services	+	+	+	+	+	+							+									+
Manager Parks and Reserves	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Manager Asset Development	+	+	+	+	+	+	+	+	+													
Managwr Asset Operation	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Manager Asset Planning	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Manager Projects	+	+	+	+		+	+	+	+	+		+	+									
Manager Development and Statutory Services	+	+	+	+	+	+																
Manager Strategic Planning and Land	+	+	+	+	+	+																
Manager Community Support	+	+	+	+	+	+																+
Manager Financial Services	+	+	+	+	+	+							+									+
Manager IT	+	+	+	+	+	+							+									
Manager Community and Eceonomic Development	+	+	+	+	+	+							+	+								
Manager Statutory Planning	+	+	+	+	+	+							+									
Manager Marketing and Communications	+	+	+	+	+	+	+						+									
<b>Accountable +</b>											<b>Contributer +</b>											

## Appendix E - Data Confidence and Current Status of the Assets

Confidence Grade	Description
A	A Highly reliable. Data based on sound records, investigations, analysis, audits and register maintenance.
B	Reliable. Data based on sound records, investigations, analysis, documented properly but has minor shortcomings e.g. The data is old, some is missing, some reliant on more auditing
C	Uncertain. Data based on sound records, investigations, analysis and records which are incomplete or extrapolated from a limited sample with known missing data
D	Very uncertain. Data based on unconfirmed verbal reports or estimates/guesses

Asset Class	Assets	Confidence Grade	Justification and Strategy
Transport	Roads Subgrade	B	Maintaining a reliable asset register and data quality is improving by regular inspection of Condition and Performance
	Road Pavement	B	
	Seal Surface	B	
	Footpaths	B	
	Bridges	B	
	Kerbs	B	
Buildings	Buildings	C	Most of data captured in building are recorded to a register, but not maintaining. Data quality shall be improved.
Parks and Reserves	Parks & Reserves	B	Maintaining a reliable asset register and data quality is improving by regular inspection of Condition and Performance
	Sporting grounds	B	
	Playgrounds	B	
	Coastal assets- Reserves	B	
	Irrigation Supply	B	
	Cemetery	B	
Coastal Marine	Jetties, Coastal Seawalls, Rock Revetments	C	Maintaining an Asset Register
Drainage	Storm Pits	A	Asset Register Up to date, continuous monitoring for data quality
	Pipes Sump	A	
	Storm Pipes	A	Asset register updated 2018/2019 analysis to be done for data quality
	Culverts	C	
Fleet	Major Plant Minor Plant, Miscellaneous plant	A	Asset Register Up to date, continuous monitoring for data quality
Commercial	Airport	C	Maintaining an Asset register for major components and the quality of the data to be improved
	Waste Management	C	
	Leisure Centres	C	



📍 Shire of Esperance  
Windich Street  
Esperance WA 6450

✉️ PO Box 507

☎️ (08) 9071 0666

📠 (08) 9071 0600

✉️ [shire@esperance.wa.gov.au](mailto:shire@esperance.wa.gov.au)

🌐 [www.esperance.wa.gov.au](http://www.esperance.wa.gov.au)