



# Hay Shire Council

## Sewerage Asset Management Plan

April 2023

Version No. 3

## How to use this Plan

This Asset Management Plan (AMP) is a tactical document to support Councils understanding of its Sewerage Assets, service levels, risks and to provide operational and capital expenditure forecasts that will deliver the community outcomes detailed in the Community Strategy 2022-2032. The AMP is set out in the following format to support easy navigation of its contents such that specific information can be readily identified to suit the reader's need.

- **Executive Summary**  
This provides an overview suitable for obtaining a high-level understanding of the key issues and outcomes of the AMP. This is intended for senior decision makers and is supported by the detail in the following sections that make up the body of the AMP.
- **Section 1 - Introduction**  
This section is the introduction that defines the plan's purpose, its scope and how the AMP aligns with corporate objectives and goals. It 'sets the scene' for the AMP and how it relates to the wider organisational plan framework.
- **Section 2 – Data Details**  
Defines the AMP's data inputs and assumptions. It includes the Asset Summary, Prior Year Infrastructure Delivery, Asset Age, Asset Condition Assessment Criteria, Results Summary, Asset profiling, Hierarchy, Useful Life and Data confidence ratings.
- **Sections 3,4, and 5 – AMP Inputs (Service levels, Risk and Growth)**  
Defines Councils' service levels, current risks and demand considerations that have been used in developing this AMP. This is the basis on which the following sections have been developed.
- **Sections 6,7,8,9 and 10 - 10-year forecasts**  
Provides the detailed 'output' of the AMP development process with forecasts over a 10-year horizon of the works required to maintain the current service levels, mitigate identified risks and cater for service growth and increased demand.
- **Sections 11,12 and 13 – Financial forecasts**  
Focus on the financial aspects of the delivering these service levels including anticipated 'financial sustainability' performance. This section is particularly relevant to inform decision making and guide continual improvement in both the AMP and achieving corporate goals.
- **Section 14 – Findings and Recommendations**  
Provides a summary of the key issues and actions to be considered by Council. It includes a statement on the reliability and confidence of information to also be considered.
- **Section 15-AMP Improvement Plan**  
Provides an action plan improve future iterations of the AMP, particularly the improvement of the plan's accuracy and reliance as a decision-making tool.
- **Appendices**  
Information which is required in the AMP as reference is in the appendices. It also includes detailed works programs for new and renewal capital works that align with funding requirements and are to be aligned with short to medium term detailed operational planning.

## Document Control

### Distribution / Stakeholder list

All key stakeholders are to be included on the distribution list.

| Name            | Initial | Date | Title/Business Unit                  |
|-----------------|---------|------|--------------------------------------|
| Jack Terblanche |         |      | Director Infrastructure and Planning |
| Mark Dowling    |         |      | Director of Corporate & Community    |
| Greg Stewart    |         |      | Manager Operations                   |
| Kate Stephens   |         |      | Manager Finance                      |
|                 |         |      |                                      |

- Stakeholders are initial the final document to indicate that the report has been signed and reviewed.

### Revision History

| Document Version | Date     | Comments        | Author     | Reviewer     |
|------------------|----------|-----------------|------------|--------------|
| 1                | 15/1/22  | Initial Draft   | David Webb | Mark Dowling |
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| 3                | 1/4/2023 | Revision/Update | David Webb | Mark Dowling |
|                  |          |                 |            |              |
|                  |          |                 |            |              |

### Certification

As the Principal officer/Asset Custodian responsible for preparing this AMP, I certify that if:

- Has been on a series of assumptions and the best available data at the time;
- Provides a rationale for and underpins the renewal funding as specified in the related 10-year service financial forecasts; and
- Provides a strong platform from which to continue asset management advancement by identifying several areas for further improvement.

Principal Officer (if applicable): \_\_\_\_\_ Signature: \_\_\_\_\_

Asset Custodian: \_\_\_\_\_ Signature \_\_\_\_\_

Date: \_\_\_\_\_

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## Executive Summary

### Purpose

The purpose of this Asset Management Plan (AMP) is to consolidate Council's understanding of its Sewerage Assets, service levels, risks and to provide operational and capital expenditure forecasts that will deliver the community outcomes detailed in the Community Strategic Plan 2022-2032.

The plan will support informed decision making, guide Long Term Financial Planning budget requirements and provide a path to further improve the accuracy and confidence in future iterations of this plan.

### Scope

This Asset Management Plan (AMP) covers the Sewerage Assets (the Assets) that support the delivery of services to the Hay Shire Council (Council) Community. It has been prepared based on the International Infrastructure Management Manual (IIMM) the recognised guideline for asset management in Australia.

The AMP uses data available within Council in 2021 including Council's audited financial asset register, based on revaluations undertaken by APV in 2021. Where possible, the financial register has been supplemented by historical condition data.

### The Assets

The Sewerage Assets are valued at \$24.65M and are apportioned into asset categories as detailed in Table 1 below.

*Table 1 Sewerage Assets Summary*

| Asset Type           | Number of Assets | Replacement Value (June 2021) |
|----------------------|------------------|-------------------------------|
| Treatment Plant      |                  | \$7,225,000                   |
| Pump Station         |                  | \$3,323,000                   |
| Sewer Mains & Points |                  | \$14,124,000                  |
| <b>Total</b>         |                  | <b>\$24,652,000</b>           |

### Asset Condition

Generally 95% of Council's Sewerage Assets are in "as New", "Good" or "Fair" condition. The assets in very poor condition represent 5% (less than \$1M) of the Sewerage asset base.

### Are We Meeting Our Adopted Service Levels?

Yes, Council is meeting its current level of service. However, Council is currently developing a new levels of service standards and performance measures. The maintenance and operations expenditure projections in this AMP are based on historical spending and therefore it may be assumed that similar future funding and if supported with appropriate investment in renewal will continue to provide current service levels.

## Are we managing Growth?

Yes, Council is managing growth. This AMP uses Council's adopted growth rate 1%. The current assets are expected to meet the required service capacity for increased population, Council must consider the future implications that a growing asset base has on its operations and maintenance costs.

## Are We Managing Our Risks?

Yes, Council is managing risks by developing strategies and policies as well as making resources available to provide services to the community. Council has a 'duty of care' to the community, its customers, in relation to the management of the assets. There are a number of types of risks Council is concerned about, including financial, service and safety. The risks were assessed by Council based on their likelihood and consequences to generate solutions to mitigate or eliminate them. It is expected that the current maintenance activities will continue to assist will continue to assist in mitigating the service risks to an acceptable level. Additional funding is required to mitigate risks associated with AM practices and reliance on this AMP.

## The Financials

Based on renewing current assets at the end of their useful lives, meeting current levels of service and to meet the adopted 1% annual demand growth, the next 10 years the projected asset expenditure requirements are:

Council's Long-Term Financial Plan (LTFP) has allocated funding for Sewerage Capital expenditure as shown in Table 2 Long Term Financial Plan below. In preparing this plan it has been assumed that Current levels of operation and maintenance funding will continue.

Table 2: Long Term Financial Plan

| Financial Year Ending | Operations & Maintenance | Renewals    | Total        |
|-----------------------|--------------------------|-------------|--------------|
| 2020                  | \$592,334                | \$546,000   | \$1,138,334  |
| 2021                  | \$602,452                | \$559,000   | \$1,161,452  |
| 2022                  | \$612,436                | \$736,000   | \$1,348,436  |
| 2023                  | \$622,283                | \$768,000   | \$1,390,283  |
| 2024                  | \$631,987                | \$601,000   | \$1,232,987  |
| 2025                  | \$641,544                | \$623,000   | \$1,264,544  |
| 2026                  | \$650,949                | \$517,000   | \$1,167,949  |
| 2027                  | \$663,875                | \$543,000   | \$1,206,875  |
| 2028                  | \$678,000                | \$353,000   | \$1,031,000  |
| 2029                  | \$692,125                | \$0         | \$692,125    |
| Total                 | \$6,387,985              | \$5,246,000 | \$11,633,985 |

## Can We Financially Sustain our Current Levels of Service?

Based on the analysis of Council's expenditure requirements of asset renewal, operations and maintenance, there is enough funding in the LTFP to sustain current service levels.

## What Are Our Options

The allocated funding in the LTFP is fully committed new/upgrade, extensions, renewals, operations or maintenance programs, therefore Council's adoption of the LTFP and this AMP with supporting works programs will sustainability deliver sewerage services at their current level over the next 10 years.

## Other Considerations

The renewal requirements are based on actual engineering calculations provided by a professional contractor and Council staff... Council believed that this data is reliable and can be used to make decisions going forward. Council has also undertaken detailed inspections of its infrastructure as part of the investigation and validation process.

## AMP Summary

*Table 3: Asset Value*

| Asset Value     |                     |                          |                     | Depreciation expense | Average Consumption remaining |
|-----------------|---------------------|--------------------------|---------------------|----------------------|-------------------------------|
| Asset Class     | Gross Value         | Accumulated Depreciation | Fair Value          |                      |                               |
| Treatment Plant | \$7,225,000         | \$129,231                | \$7,095,954         | \$129,231            | 98.21%                        |
| Pump Stations   | \$3,302,365         | \$1,562,524              | \$1,739,840         | \$77,580             | 52.68%                        |
| Mains & Points  | \$14,124,896        | \$3,732,647              | \$10,392,063        | \$141,209            | 73.57%                        |
| <b>Total</b>    | <b>\$24,652,260</b> | <b>\$5,424,403</b>       | <b>\$19,227,585</b> | <b>\$348,020</b>     |                               |

Table 4 Capital Works Program Sewer - Proposal Sewer

|                                                                                                         |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
|---------------------------------------------------------------------------------------------------------|---------|------|--------|-------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----|----|
| HAY SHIRE COUNCIL                                                                                       |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| SEWER - 30-Year Capital Works Program (Option 1)                                                        |         |      |        |       | Current Year | 2021/22 |         |         |         |         |         |         |         |         |         |     |    |
| CAPITAL WORKS IN 2021\$('000)                                                                           |         |      |        |       |              |         | 0       | 1       | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9   | 10 |
|                                                                                                         | SUBSIDY | ILOS | GROWTH | RENEW | Total        | 2021/22 | 2022/23 | 2023/24 | 2024/25 | 2025/26 | 2026/27 | 2027/28 | 2028/29 | 2029/30 | 2030/31 |     |    |
| Sewerage                                                                                                |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Various Pumps Stations                                                                                  |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Various sewage pump stations - Service All Pumps/Detail Report                                          |         |      |        |       | 100%         | 50      | 50      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Various sewage pump stations - Provision to upgrade metal & pipework                                    |         |      |        |       | 100%         | 108     | 0       | 12      | 12      | 12      | 12      | 12      | 12      | 12      | 12      | 12  |    |
| Repair and maintenance of pump stations                                                                 |         |      |        |       | 100%         | 765     | 68      | 70      | 72      | 74      | 75      | 77      | 79      | 81      | 83      | 85  |    |
| Repair and maintenance of fixed plant & equipment                                                       |         |      |        |       | 100%         | 1,723   | 154     | 158     | 162     | 166     | 170     | 174     | 178     | 183     | 187     | 192 |    |
| Sewerage Pump Station PS 1 Council Depot                                                                |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Depot pump stn - Rehabilitate the internal well to strengthen the wall (including investigation)        |         |      |        |       | 100%         | 250     | 0       | 0       | 0       | 250     | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals                                                                                                |         |      |        |       | 100%         | 380     | 0       | 0       | 0       | 0       | 0       | 0       | 30      | 0       | 0       | 0   |    |
| Sewerage Pump Station PS 2 Hospital (aka POW Camps)                                                     |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Hospital pump stn - Replace the Rising main No 2                                                        |         |      |        |       | 100%         | 40      | 0       | 0       | 40      | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Hospital pump stn - Repace both pumps                                                                   |         |      |        |       | 100%         | 20      | 0       | 0       | 20      | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Hospital pump stn - Upgrade electricals                                                                 |         |      |        |       | 100%         | 20      | 0       | 0       | 20      | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals                                                                                                |         |      |        |       | 100%         | 130     | 0       | 0       | 0       | 0       | 0       | 0       | 15      | 0       | 0       | 0   |    |
| Sewerage Pump Station PS 3 Queen St                                                                     |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Queen St pump station - Replace both pumps and undertake accessory works                                |         |      |        |       | 100%         | -       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Queen St pump station - Rehabilitate the internal well to strengthen the wall (including investigation) |         |      |        |       | 100%         | -       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals                                                                                                |         |      |        |       | 100%         | 280     | 0       | 0       | 0       | 0       | 0       | 0       | 15      | 0       | 0       | 0   |    |
| Sewerage Pump Station PS 4 Lang St                                                                      |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Sewage pump St Corner- Lang St - Upgrade electricals                                                    |         |      |        |       | 100%         | -       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals                                                                                                |         |      |        |       | 100%         | 125     | 0       | 0       | 0       | 0       | 0       | 0       | 15      | 0       | 0       | 0   |    |
| Sewerage Pump Station PS 5 Russell St                                                                   |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Russell St pump station - Upgrade electricals                                                           |         |      |        |       | 100%         | 18      | 0       | 18      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals                                                                                                |         |      |        |       | 100%         | 45      | 0       | 0       | 0       | 0       | 0       | 0       | 15      | 0       | 0       | 0   |    |
| Sewerage Pump Station PS 6 Pal Richards Park (aka Kebe! St)                                             |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Pal Richards pump station - Upgrade electricals                                                         |         |      |        |       | 100%         | 20      | 0       | 20      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals                                                                                                |         |      |        |       | 100%         | 45      | 0       | 0       | 0       | 0       | 0       | 0       | 15      | 0       | 0       | 0   |    |
| Sewerage Pump Station PS 7 Stephen St (aka Meakes St)                                                   |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Stephen St pump station - Replace both pumps and upgrade electricals                                    |         |      |        |       | 100%         | 250     | 0       | 25      | 0       | 0       | 225     | 0       | 0       | 0       | 0       | 0   |    |
| Renewals                                                                                                |         |      |        |       | 100%         | 23      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Sewerage Pump Station PS 8 Bourke St (aka Rodeo Club)                                                   |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Rodeo pump Station - Replace both pumps                                                                 |         |      |        |       | 100%         | 10      | 0       | 0       | 0       | 0       | 0       | 0       | 10      | 0       | 0       | 0   |    |
| Renewals                                                                                                |         |      |        |       | 100%         | 35      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15      | 0   |    |
| Sewerage Pump Station PS 9 Sandy Point Ablution Block                                                   |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Sandy point pump station - Replace both pumps                                                           |         |      |        |       | 100%         | 20      | 20      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals                                                                                                |         |      |        |       | 100%         | 19      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 4       | 0   |    |
| Sewage Treatment Plant 3000 EP                                                                          |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Sewage Treatment Plant - Install a system to re-use water                                               |         |      |        |       |              | 100     | 0       | 0       | 0       | 0       | 0       | 100     | 0       | 0       | 0       | 0   |    |
| New reuse scheme                                                                                        |         |      |        |       | 70%          |         | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals - Catch/Balance Pond                                                                           |         |      |        |       | 100%         | 10      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals - Compressed Air                                                                               |         |      |        |       | 100%         | 15      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals - IDEA Tank                                                                                    |         |      |        |       | 100%         | 335     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals - Inlet Works                                                                                  |         |      |        |       | 100%         | 420     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals - Site Services                                                                                |         |      |        |       | 100%         | 1,075   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals - Sludge Lagoon 1                                                                              |         |      |        |       | 100%         | 25      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals - WasteWater PS                                                                                |         |      |        |       | 100%         | 15      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Sewer Mains                                                                                             |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| Various sewer mains & manholes - Renewal & upgrade, reline, camera inspections                          |         |      |        |       | 100%         | 1,620   | 180     | 180     | 180     | 180     | 180     | 180     | 180     | 180     | 180     | 0   |    |
| Repair and maintenance of sewer mains                                                                   |         |      |        |       | 100%         | 574     | 51      | 53      | 54      | 55      | 57      | 58      | 59      | 61      | 62      | 64  |    |
| Renewals - Rising Main 1                                                                                |         |      |        |       | 100%         | 329     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Renewals - Rising Main 2                                                                                |         |      |        |       | 100%         | 49      | 0       | 0       | 0       | 0       | 49      | 0       | 0       | 0       | 0       | 0   |    |
| New subdivisions                                                                                        |         |      |        |       |              |         |         |         |         |         |         |         |         |         |         |     |    |
| East Hay new subdivision- pump station - Replace both pumps                                             |         |      |        |       | 100%         | 10      | 0       | 10      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| Bishops Lodge Subdivision - Sewermain extension                                                         |         |      |        |       | 100%         | 50      | 50      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0   |    |
| GRAND TOTAL                                                                                             |         |      |        |       |              | 9,001   | 573     | 545     | 559     | 736     | 768     | 601     | 624     | 517     | 543     | 353 |    |

Table 5: Asset Condition %

|                 | As New % | Good % | Fair % | Poor % |
|-----------------|----------|--------|--------|--------|
| Treatment Plant | 100      |        |        |        |
| Pump Stations   | 3        | 97     |        | 0      |
| Mains & Points  | 26       | 41     | 28     | 5      |

## Introduction

### Purpose

The purpose of this Asset Management Plan (AMP or Plan) is to:

- Consolidate Hay Shire Council's (Council's) understanding of its assets within the Sewerage Asset class
- Document levels of Service and risk
- Provide short and medium – term capital works plans
- Support informed decision making and guide Long-Term Financial Planning budget requirements
- Provide a plan to work towards improved accuracy and confidence in future iterations of this Plan.

### Scope

This AMP relates to the management of Sewerage Infrastructure assets (the Assets) which are recognised assets owned by Council. Assets in this class typically comprise of the following classes:

- Treatment Plants
- Pump Stations
- Mains & Points

### Corporate Context

In 2009 a new Integrated Planning Reporting (IP&R) framework for NSW local government was introduced. The IP&R framework requires councils to prepare a suite of long-term strategic documents, including a Community Strategic Plan, Resourcing Strategy and Delivery Plan Program, as well as an annual Operational Plan. Integration of these strategic documents is key to effective long-term planning and assist us in providing ratepayers with the best level of service that we can.

Table 6 illustrates how the IP&R framework ensures that local planning and reporting is informed, relevant and responsive to community needs.

Table 6: Integrated Planning & Reporting flow chart

## Community Strategic Plan

Informed by extensive community and stakeholder consultation, the Hay Shire Council 2022-2032 Community Strategic Plan seeks to answer four key questions:

- How will we get there?
- How will we know when we have arrived?

At an operational level, the Community Strategic Plan is implemented through Council's Delivery Plan and annual Operations Plans, which outlines the activities and actions that are the responsibility of Council in achieving our shared vision.

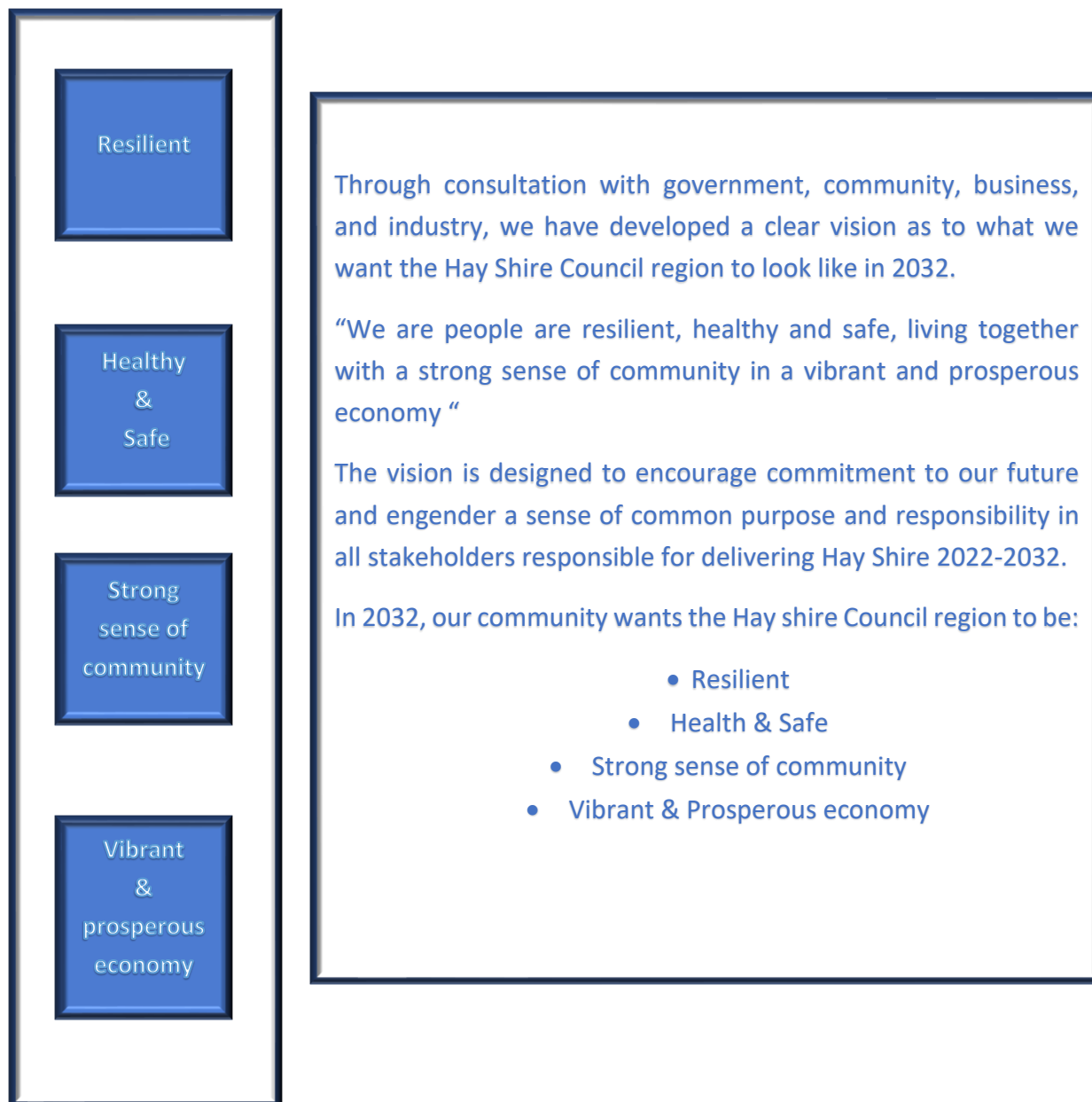
## Resourcing Strategy

The Hay Shire 2022-2032 Community Strategic Plan (CSP) provides vehicle for expressing our community's long-term aspirations. However, the vision set out in this Plan will not be achieved without sufficient resources – time, money, assets and people – to carry them out.

The Resourcing Strategy comprises the following components:

- **Asset Management Planning:** Council's asset management planning is supported by an Asset Management Policy, Asset Management Strategy, and individual Asset Management Plans for all assets under Council's control. Considering 'whole of life' asset management from planning, purchase, operation, and maintenance - to disposal of assets; the Asset Management Strategy in forecasting community requirements and the capacity to meet them on a short -, medium -, and long-term basis.
- **Long-Term Financial Planning:** The Long-Term Financial Plan (LTFP) tests community aspirations as contained in the Community Plan against the financial realities of the delivering on those aspirations. The LTFP integrated with Hay Shire 2022-2032 CSP through the Delivery Program and one-year Operational Plan.
- **Workforce Management Planning:** The Workforce Management Plan addresses the human resourcing requirements of the Community Strategic Plan, including what people, skills, experience and expertise are required to achieve its strategic objectives.

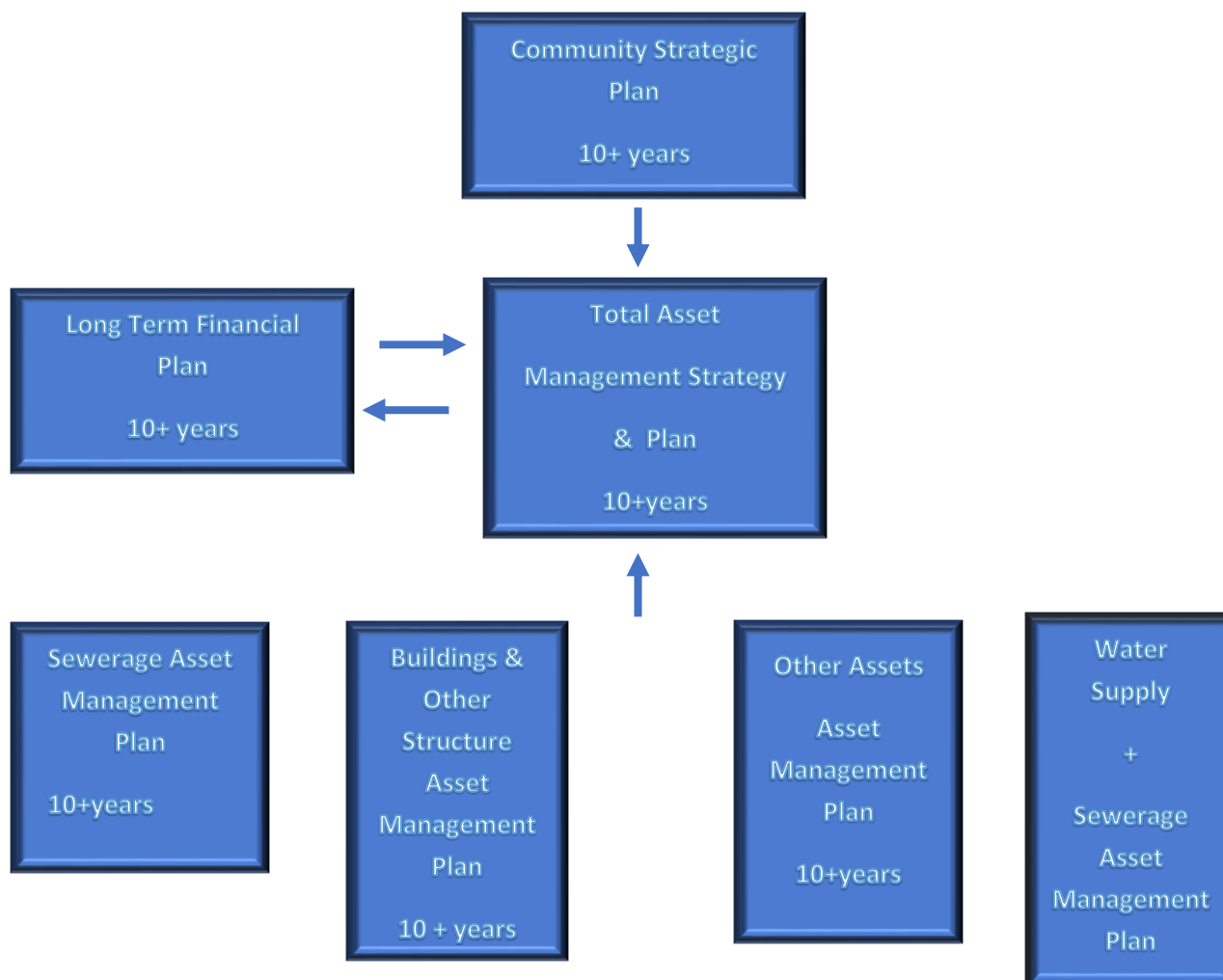
This AMP is prepared under the above hierarchy and direction of Council’s mission, values goals and objectives.



## Relationship to Other Asset Related Council Documents

This AMP aligns and should be read in conjunction with framework of Council documents as shown.

### Asset Management Document Hierarchy



The table 7: below shows the key documents that support this AMP:

| Document                | How Related                                                                                                                                                                                                                                                                                                                                                                                                                               | Reference |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| AMP Related Documents   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |
| Asset Management Policy | <p>The Asset Management Policy includes the defining principles of asset management within Council. This AMP supports such as by</p> <ul style="list-style-type: none"> <li>• Considering the entire life cycle of the assets</li> <li>• Supporting the development of cost-effective management strategies for the long term</li> <li>• Providing a defined level of service which can be monitored and used as the basis for</li> </ul> |           |

|                                                                |                                                                                                                                                                                                                                                                                                                                                                              |                 |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
|                                                                | <p>aligning affordability with community aspirations</p> <ul style="list-style-type: none"> <li>• Understanding and meeting the demands of growth through demand management and asset investments.</li> <li>• Managing risk associated with the assets: and</li> <li>• Defining actions required to support continuous improvement in asset management practices.</li> </ul> |                 |
| Condition Assessment Plan                                      | Contains the methodologies, defect assessment procedures, and the condition rating system used to formally assess the structural integrity and appearance of assets.                                                                                                                                                                                                         |                 |
| Service Level Agreement (including Maintenance Specifications) | Contains all maintenance and operational specification requirements for assets under this AMP.                                                                                                                                                                                                                                                                               |                 |
| Risk Registers                                                 | Contains all identified asset related risks applicable to this AMP.                                                                                                                                                                                                                                                                                                          |                 |
| Maintenance Manual                                             | Contains design and construction details for new assets.                                                                                                                                                                                                                                                                                                                     |                 |
| <b>Other Related Documents</b>                                 |                                                                                                                                                                                                                                                                                                                                                                              |                 |
| Land Development Guidelines                                    | Contains design and construction details for new assets                                                                                                                                                                                                                                                                                                                      | Council Website |
| External/Specialist Reports                                    | Catchment Analysis, etc.                                                                                                                                                                                                                                                                                                                                                     |                 |

## Stakeholder Input

Various stakeholders were considered in the preparation of this AMP who will have different roles in implementing its outcomes. These stakeholders and their role are shown in Table 8.

*Table 8: Key Stakeholders*

| Key Stakeholder | Role                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Councillors     | <ul style="list-style-type: none"> <li>• Represent needs of community.</li> <li>• Allocate resources to meet Council's objectives in providing services while managing risks.</li> <li>• Ensure the organisation is financially sustainable</li> <li>• Custodians of the assets and services, providing the interface with the community regarding the levels of service, good governance, and management practices.</li> </ul> |

|                                   |                                                                                                                                                                                                                                                                  |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Manager                   | <ul style="list-style-type: none"> <li>• Manager organisation operational activities and future planning strategic direction.</li> </ul>                                                                                                                         |
| Director Corporate & Community    | <ul style="list-style-type: none"> <li>• Long-Term Financial Plans and operational financial data</li> <li>• Defining information requirements for audit and reporting purposes</li> </ul>                                                                       |
| Director Corporate & Planning     | <ul style="list-style-type: none"> <li>• Manage delivery of the AMP and initiative.</li> <li>• Capital works projects planning and deliver.</li> <li>• Operational and service levels, data information and analysis.</li> </ul>                                 |
| Community and Ratepayers          | <ul style="list-style-type: none"> <li>• User of services</li> <li>• Source of funding</li> </ul>                                                                                                                                                                |
| State and Commonwealth Government | <ul style="list-style-type: none"> <li>• Active in the management of assets and services across the region.</li> </ul>                                                                                                                                           |
| Council Staff                     | <ul style="list-style-type: none"> <li>• Directly involved with the renewal, maintenance and operation of the network and the management framework, both operationally and financially.</li> <li>• Delivery of operations plans informed by this AMP.</li> </ul> |
| Emergency Services                | <ul style="list-style-type: none"> <li>• Respond to community needs and emergency situations.</li> </ul>                                                                                                                                                         |

## Legislative Requirements

Council is required to meet many legislative requirements including Federal and State legislation and regulations. Key relevant legislation is shown in Table 9.

*Table 9: Legislative Requirements*

| Legislation                               | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Local Government Act NSW (1993)           | <p><b>8B Principles of sound financial management</b></p> <p>The following principles of sound financial management apply to councils:</p> <p>(c) Councils should have effective financial and asset management, including sound policies and processes for the following:</p> <ul style="list-style-type: none"> <li>(i) Performance management and reporting,</li> <li>(ii) Asset maintenance and enhancement</li> </ul> <p><b>403 Resourcing strategy</b></p> <ul style="list-style-type: none"> <li>(1) A Council must have a long-term strategy (called its <b>“resourcing strategy”</b>) for the provision of the resources required to implement the strategies established by the community Strategic Plan that the Council is responsible for.</li> <li>(2) The resourcing strategy is to include long-term financial planning, workforce management planning and asset management planning.</li> </ul> |
| Water Management Act 2000(NSW)            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Australian Drinking Water Guidelines 2012 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|                                                                                            |  |
|--------------------------------------------------------------------------------------------|--|
| Public Works Act 1912 (NSW)                                                                |  |
| Environment Planning & Assessment Act 1979 (NSW)                                           |  |
| Environment Administration Act 1991 and Protection of the Environment Operations Act 1997. |  |

This Sewerage AMP contributes to supporting Council's legislative requirements.

## Plan Maturity

This AMP is targeted at a first cut, 'core-level' AMP as defined in the International Infrastructure Management Manual. Detailed information is in Table 9 below.

Core level AMP's are developed to meet minimum legislative and organisational requirements and provide basic technical management outputs, including:

- Statements on current levels or aspirational levels of service
- Forward asset flow programs
- Associated cash flow

*Table 10: Core Level Asset Management Capabilities*

| AM Category            | Core Assessment requirements                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Asset Management Plans | <ul style="list-style-type: none"> <li>• Plan contains basic information on assets, service levels, planned works, and financial forecasts (5-10years) and future improvements.</li> <li>• The plan also includes executive summary, description of services and key/critical assets, top-down condition and performance description of supporting AM processes, 10-year financial forecasts, and 3-year AM improvements plan.</li> </ul> |

Other "Core" Assessment requirements that can be included in the AMP include the following:

|                                              |                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Risk Management                              | <ul style="list-style-type: none"> <li>• Risk framework developed</li> <li>• Critical assets and high risks identified</li> <li>• Documented risk management strategies for critical assets and high risks</li> </ul>                                                                                                                          |
| Quality Management                           | <ul style="list-style-type: none"> <li>• Defined quality policy and basic Quality Management System</li> <li>• All critical activity processes documented.</li> </ul>                                                                                                                                                                          |
| Levels of Service and Performance Management | <ul style="list-style-type: none"> <li>• Customer groups defined, and requirements informally understood.</li> <li>• Levels of service and performance measures in place covering a range of service attributes.</li> <li>• Annual reporting against performance targets.</li> </ul>                                                           |
| Demand Forecasting                           | <ul style="list-style-type: none"> <li>• Demand forecasts based on robust projection of a primary demand factor (e.g. population growth) and extrapolation of historic trends.</li> <li>• Risk associated with demand change broadly understood and documented.</li> <li>• Demand management is considered in major asset planning.</li> </ul> |
| Operating Planning                           | <ul style="list-style-type: none"> <li>• Emergency response plan is developed</li> </ul>                                                                                                                                                                                                                                                       |

|                                  |                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  | <ul style="list-style-type: none"> <li>Asset utilisation is measured for critical asset groups and its routinely analysed.</li> </ul>                                                                                                                                                                                                                                                         |
| Maintenance Planning             | <ul style="list-style-type: none"> <li>Asset critically considered in response processes.</li> <li>Fault tracking and closure process</li> <li>Strategy for prescriptive versus performance-based maintenance developed.</li> <li>Key maintenance objective established and measured.</li> </ul>                                                                                              |
| Capital Works Planning           | <ul style="list-style-type: none"> <li>Projects have been collated from a wide range of sources such as hydraulic models, operational staff, and risk processes.</li> </ul>                                                                                                                                                                                                                   |
| Financial and Funding Strategies | <ul style="list-style-type: none"> <li>10+ year financial forecasts based on current AMP outputs.</li> <li>Significant assumptions are specific and well-reasoned.</li> <li>Expenditure captured at a level useful for AM analysis.</li> </ul>                                                                                                                                                |
| Asset Register Data              | <ul style="list-style-type: none"> <li>Sufficient information to complete asset valuation – basic physical information recorded in a spreadsheet or similar (e.g location, size, type) but may be based on broad assumptions or not complete.</li> <li>Replacement costs and asset age/life.</li> <li>Asset hierarchy, asset identification and asset attribute system documented.</li> </ul> |
| Asset Condition                  | <ul style="list-style-type: none"> <li>Condition assessment programme in place for major asset types, prioritised based on assets risk.</li> <li>Data supports asset life assessment</li> <li>Data management standards and processes documented</li> <li>Programme for data improvement developed.</li> </ul>                                                                                |
| Information Systems              | <ul style="list-style-type: none"> <li>Asset registered enables hierarchical reporting (at component to facility level).</li> <li>Customer request tracking and planned maintenance functionally enabled</li> <li>System enables manual reports to be generated for valuation, renewal forecasting.</li> </ul>                                                                                |
| Service Delivery Mechanisms      | <ul style="list-style-type: none"> <li>Service delivery roles clearly allocated (internal and external), with contracts in place for external service provision.</li> </ul>                                                                                                                                                                                                                   |

## Existing Infrastructure Base

The section provides an overview of the infrastructure assets covered by this AMP. The overview provides an understanding of the age, value, and condition of Council's existing infrastructure asset base.

### Asset Summary

A summary of the Sewerage Assets covered by the AMP are included in table 11.

*Table 11: Asset Summary*

| Asset type       | Gross Value  |
|------------------|--------------|
| Treatment Plant  | \$7,225,000  |
| Pump Stations    | \$3,302,365  |
| Mains and points | \$14,124,896 |
| Total            | \$24,652,260 |

## Asset Condition

Council has adopted a condition assessment method using a 5-point scale rating, varying from 'Very Good' to 'Very Poor' condition as can be seen in Table 12 below.

*Table 12: condition assessment method using a 5-point scale rating*

| Grade | Condition | % Remaining Useful Life | Description                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------|-----------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Very Good | >70%                    | Sound physical condition. No signs of deterioration<br>Only normal maintenance required                                                                                                                                                                                                                                                                                                                        |
| 2     | Good      | 70%->50%                | Acceptable physical condition; minor deterioration visible, no short-term failure risk. Minor defects only.<br>Only minor work required, if any.                                                                                                                                                                                                                                                               |
| 3     | Fair      | 50%->10%                | Acceptable physical condition; minimal short-term failure risk but potential for deterioration in long-term. Minor defects only. Minor components or isolated sections of the asset may need replacement or repair now but asset functions safely at adequate level of service. Work may be required but asset is serviceable.<br>Maintenance required to restore the asset to an acceptable level of service. |
| 4     | Poor      | 10%-4%                  | Significant deterioration evident. Failure likely in short-term. Likely need to replace most or all of the asset. No immediate risk to health or safety work required in short-term, asset barely serviceable.<br>Asset requires renewal – works to be programmed.                                                                                                                                             |
| 5     | Very Poor | <4%                     | Failed or failure imminent. Immediate need to replace most or the entire asset. Health and safety hazards exist which present a possible risk to public safety, or asset cannot be serviced/operated without risk to personnel. Asset is effectively unserviceable.<br>Major work or replacement required urgently.                                                                                            |

The summary of assets condition by asset type indicated that the two major areas contributing to the failing assets and deserving further consideration are the Sewer Points and Sewer lines. Both asset types are inground assets with the condition generally based on age of the asset.

Council undertakes CCTV of the Sewer Line and visual inspections of the Sewer Points to confirm the recorded condition, remaining life estimates and to inform the 10-year works programs.

Currently Councils records show that 95% of Sewer infrastructure is in as new, good or fair condition.

*Table 13: Asset Condition Profile (as a percentage (%) of the Asset Base)*

| Asset Type       | Condition (% of Asset Base) |      |      |      |           |       |
|------------------|-----------------------------|------|------|------|-----------|-------|
|                  | As New                      | Good | Fair | Poor | Very Poor | Total |
| Treatment Plant  | 100                         |      |      |      |           |       |
| Pump Stations    | 3                           | 97   |      | 0    |           |       |
| Mains and Points | 26                          | 41   | 28   | 5    |           |       |
| Total            |                             |      |      |      |           |       |

## Assets Criticality

A critical asset is an asset for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than non-critical assets.

Although critical assets have a high consequence of failure, they don't necessarily have a high likelihood of failure.

Asset Criticality is a measure of how critical an asset is to the functioning of and/or the services provided by Council.

The importance or degree of asset critically has been proposed to be based on the consequences of failure i.e. consequences of failure are assigned a criticality factor.

Elements that may impact on asset criticality include:

- Safety
- Cost of Failure
- Complexity
- Severity of Duty
- Impact of failure
- Impact on Environment
- Location
- Loss of Service
- Number of Customers Served
- Site function
- Public image impact

Social, environmental & economic factors may be considered.

Social may include

- Community disruption
- Health and safety
- Litigation

Environment factors that may need to be considered are

- Natural waterways
- Parks
- National parks
- Recreational grounds

Economic

- Business and commercial activities being disrupted
- Costs to the community

Council is still in the process of developing & assigning criticality rating.

## Levels of Service

### Level of Service Documents Hierarchy

- **Hay Shire 2022-2032 CSP**  
The Community Strategy establishes, through community consultation, Council's aspirational goals and objectives for the delivery of Sewerage services.
- **Asset Management Plan**  
This Asset Management Plan (AMP) develops technical measures against which the aspirational goals and objectives can be measured (Technical Levels of Service)
- **Service Delivery Plan**  
The Service Delivery Plan (SDP) allocated those responsible for the assets and the services they deliver, and the operational areas of Council charged with maintaining, operating, and upgrading existing assets or construction new infrastructure.
- **Activity Specification**  
The activity specification defines the target performance measures for maintenance, operations, or construction activities. It sets routine inspection and maintenance frequencies and for reactive maintenance sets intervention levels, response times, activity duration targets.
- **Maintenance Management Plan**  
The Maintenance Management Plan (MMP) details how each activity is to be completed and may include the following:
  - Standard Operating Procedures
  - Work Instructions
  - Hazards Risk Assessment
  - Reference to Equipment Maintenance Manuals (particularly fleet, plant, mechanical and electrical assets)

## Community Strategy 2022-2032 (Community Levels of Service)

The Community Strategy relevant to this AMP is

Outcome 5: Our Infrastructure – Sustainable infrastructure provision that is adaptive to changing and funding levels.

*Table 14: Council's Goals*

| Council Role                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Effective maintain the region's water and sewer infrastructure.</li><li>• Undertake sound asset management planning and asset mapping.</li><li>• Where appropriate, upgrade existing or provide new infrastructure.</li></ul> |

In addition to Council's Sewerage aspirational goal and roles as detailed in Table 14 above, the Community Levels of Service relate to subjective service delivery outcome that the community wants in terms of safety, quality, quantity, reliability, responsiveness, value and legislative compliance.

Community levels of service measures used in this service management plan are:

- Quality – How good is the service?
- Function – Does it meet users' needs?
- Capacity/Utilisation – Is the service over or under used?

These community levels of service promised by Council are outlined in table 15.

Table15: Community Levels of Service

| Service Level Outcome  | Principle Activity                                                                                                                            | Strategic Elements                                                                                                                          | Performance Outcome                                                                                                                                                                                   | Assessed by                                                                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Reliability            | Sewerage doesn't impact services                                                                                                              | Unobtrusive service                                                                                                                         | No disruptions from sewerage network                                                                                                                                                                  | Number of interruptions/years                                                                                                               |
| Quality                | Good value sewerage services<br>No odours                                                                                                     | Sewerage collection, transport and treatment remains affordable                                                                             | Agreed level of service delivered with budget allocations while maintaining an acceptable level of risk and asset life expectations. Cost of sewerage services does not increase more than inflation. | Quantitative cost assessment                                                                                                                |
| Function               | Provide an effective method of collection and disposal of wastewater.<br>No backup of sewage into public places /waterways<br>Sewerage re-use | Sewerage system functions as designed<br>Water re-use from treatment plants is optimised<br>Sewerage network doesn't impact the environment | Water re-used from treatment plants is optimised<br>Sewerage treatment meets all relevant environmental guidelines                                                                                    | Water quality testing<br>Environmental impact assessment                                                                                    |
| Condition              | Sewerage network is maintained in good condition                                                                                              | The condition of the sewerage assets is regularly assessed.                                                                                 | Condition rating for the Sewerage Network assets.                                                                                                                                                     | Movements in the assessed condition of the assets<br>% of renewal programs delivered.                                                       |
| Capacity & Utilisation | Provides adequate population capacity                                                                                                         | Network has sufficient capacity to meet community expectations.                                                                             | The capacity of the sewerage network will have capacity to meet population growth expectations.                                                                                                       | % of sewerage network by value that has poor capacity or utilisation compared with criteria set out in technical service levels for various |

## Technical Levels of Service

Technical levels of service support the community levels of service by turning subjective requirements of the Community Levels of Service into objective assessments. These technical measures aim to quality the performance of the assets and service they provide and relate to the allocation of resources to services activities that the organisation undertakes to best achieve the desired community outcomes and demonstrates effective organisational performance.

Technical service measures are linked to annual budgets covering:

- **Operations** – the regular activities to provide services such as opening hours, cleansing frequency, mowing frequency, etc.
- **Maintenance** – the activities necessary to retain an asset near as practicable to an appropriate service condition (e.g. removing tree roots, pipe failure repair, pump/motor maintenance)
- **Renewal** – the activities that return the service capability to that which it had originally, replacing “like with like” (eg pipeline replacement, pump/motor renewal)
- **Upgrade** – the activities to provide an higher level of service (e.g replacing a pipeline with a larger size, upgrading the capacity of pumps/motors) or
- **New** – a new service that did not exist previously (e.g. a new library).

Asset managers plan, implement and control technical service levels to influence the community service levels. <sup>1</sup>

These technical Levels of Service are outlined in Table 16 by asset classification

Table 16: Technical Levels of Service

|                                                                         |                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                         |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Asset Class                                                             | Sewerage                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                         |
| Service Statement                                                       | Council has Effectively maintained Roads and Footpaths that are fit for purpose                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                         |
| Performance Measure                                                     | Community feedback through surveys or complaints and the average condition of the road network.                                 |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                         |
| Service Factors                                                         | Community Levels of Service                                                                                                     | Technical Level of Service                                                                                                                                                                                                                                                                                                                                                                                       | Performance Measures                                                                                                                                                                    |
| Quality                                                                 |                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                         |
| Effective sewerage transport and treatment                              | An unobtrusive service                                                                                                          | <p>No nuisance from sewerage services</p> <p><u>Operations &amp; Maintenance</u></p> <ul style="list-style-type: none"> <li>Inspect assets on a routine to identify their condition</li> <li>Inspect assets on a routine basis to identify and address any defect and safety concerns</li> <li>Maintain assets in a tidy, safe and functional condition.</li> </ul>                                              | <p>100% of Activities identified in the met.</p> <p>30% of Asset Base condition assessed annually</p> <p>Defect inspections 90% of sewerage assets.</p> <p>&lt;1 complaint/month</p>    |
|                                                                         |                                                                                                                                 | <p>Renewal</p> <ul style="list-style-type: none"> <li>Renew/replace components when they no longer function</li> <li>Renew/replace assets when they degrade to a dangerous level.</li> </ul>                                                                                                                                                                                                                     | <p>90% delivery of CAPEX programs</p> <p>100% Compliance with design standards and guidelines</p> <p>5&gt; complaints /annum</p>                                                        |
| Function                                                                |                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                         |
| Environmental Compliance<br>Affordability and whole of life management. | Sewerage treatment meets all relevant environmental guidelines Sewerage collection, transport and treatment remains affordable. | <p>New/Upgrade</p> <ul style="list-style-type: none"> <li>Provide new/upgrade infrastructure to cater for community growth in accordance with community demand.</li> <li>Provide new/upgraded infrastructure as required to comply with industry standards or statutory requirements.</li> <li>Ensure new/upgrade infrastructure is designed and constructed in accordance with Council's Guidelines.</li> </ul> | <p>90% delivery of CAPEX programs.</p> <p>100% Compliance with design standards and guidelines.</p> <p>5&gt; complaints/annum</p>                                                       |
| Capacity /Utilisation                                                   |                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                         |
| Sewerage re-use                                                         | Water re-use from treatment plants is optimised.                                                                                | <p>Conduct studies for beneficial use of bio-solids and reclaim water</p> <p><u>New/upgraded</u></p> <ul style="list-style-type: none"> <li>Ensure new/upgrade infrastructure for re-use is designed and constructed in accordance with Council's Guidelines.</li> </ul>                                                                                                                                         | <p>Maintenance delivered to budget.</p> <p>90% compliance with SDP and activity Specification.</p> <p>100% Compliance with design standards and guidelines</p> <p>Customer surveys.</p> |

## Growth

### Development

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

Acquiring these new assets will commit Council to fund on-going operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs.

### Demand

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

Specific to Council, the demand factor that may impact on service delivery are summarised in Table 17.

*Table 17: Demand Impact*

| Demand Driver    | Current Position                                                                                   | Projected Position                | Potential Impact                                                                                              | Response Required                                                                                            |
|------------------|----------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Community Growth | 2946 residents                                                                                     | • No current prediction available | Population growth will result in an increase in asset use and have an impact on lifecycle cost if the assets. | There is not enough growth to have a significant impact on services.                                         |
| Demographic      | Median age 45                                                                                      | • No current prediction available | Increases in the median age increases the importance for service accessibility.                               | The average population being relatively young will increase the need for community Transport infrastructure. |
| Tourism          | Tourism and related industries account for 16.6% of the total employed in the Council area.<br>Ali | • No current prediction available | An increase in visitors to the area will have a larger effect on infrastructure services                      | Council will not have to increase size of the asset base specially for tourism increases                     |

### Growth/Demand Response

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.

Non-asset solutions focus on providing the required service without the need for Council to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets to deteriorate beyond current service levels) or education customers to accept appropriate assets failures.

Opportunities for demand will be developed in future revisions of this asset management plan.

Council's current adopted growth rate is 1% per annum. There is existing capacity in the transport network to cater for this level of growth for the foreseeable future.

## Risk Management

### Risk Management Objectives

Council has a 'duty of care' to the community in relation to management of the assets and appropriate management of risk. Council must reduce risk where it is reasonable to do so. Risks that affect Council include:

- Risks associated with the loss of service by the failure of critical assets
- Financial risks from a lack of due diligence in the management of funding for the renewal, maintenance, and operation and management outputs.

The objectives to be achieved in managing risks under the AMP are:

- Identify high risk assets
- Maintain Levels of Service
- Mitigate risks to the public
- Reduce the number and magnitude of unplanned asset failures.

Managing risks involves identifying, assessing and determining risk management option.

Risk options vary depending on several factors, including but not limited to:

- Available resources and funding
- Risk assessment level and
- Network demand

In this way, it may be reasonable to mitigate a lower risk when it is not practical to mitigate a high risk.

For each identified risk Council can elect to adopt one of the following positions:

- Take the risk
- Transfer the risk
- Treat the risk
- Terminate the risk

### Risk Assessment Method

Risks vary on both likelihood and consequence. Analysing risks in a risk matrix can help to quantify the risk to then identify necessary treatment actions. The risk matrix used to assess Council's risk is shown below.

| LIKELIHOOD |                   | CONSEQUENCES |          |          |          |              |
|------------|-------------------|--------------|----------|----------|----------|--------------|
|            |                   | 1            | 2        | 3        | 4        | 5            |
|            |                   | Negligible   | Minor    | Moderate | Major    | Catastrophic |
| Likelihood | A. Rare           | Low          | Low      | Low      | Moderate | High         |
|            | B. Unlikely       | Low          | Low      | Moderate | High     | High         |
|            | C. Possible       | Low          | Moderate | Moderate | High     | Extreme      |
|            | D. Likely         | Moderate     | Moderate | High     | Extreme  | Extreme      |
|            | E. Almost Certain | Moderate     | High     | High     | Extreme  | Extreme      |

| Risk Assessment | Treatment Options                                                                                                                                                                                                                                                                                                |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Low(L)          | Acceptable Risk <ul style="list-style-type: none"> <li>Unlikely to require specific application of resources</li> <li>Manage by routine procedures</li> <li>Monitor, review and react</li> </ul>                                                                                                                 |
| Moderate (M)    | Acceptable Risk <ul style="list-style-type: none"> <li>Unlikely to cause much damage and/or threaten the efficiency and effectiveness of the activity</li> <li>Treatment plans to be developed and implemented by operational managers.</li> <li>Manage by specific monitoring or response procedures</li> </ul> |
| High Risk (H)   | Generally unacceptable <ul style="list-style-type: none"> <li>Likely to cause some damage, disruption, or breach of controls</li> <li>Senior management attention needed, and management responsibility specified</li> <li>Treatment plans to be developed and reported to executives</li> </ul>                 |
| Extreme (E)     | Not acceptable <ul style="list-style-type: none"> <li>Likely to threaten the survival or continued effective function of the organisation, either financially or politically</li> <li>Must be managed by senior management with detailed treatment plan in place</li> <li>Immediate action required.</li> </ul>  |

Council has not yet completed its risk analysis of its assets using criticality of the asset as a measure of the consequence of failure and the condition rating as the likelihood of the asset failing.

## Available Funding

The available funding was estimated based on the financial model provided by Council. The Capital expenditure has been extracted from Council's Financial Model; however, the operations and maintenance expenditure funding forecasts are imbedded in the model data and not clearly identified by asset class. Therefore, these operational expenditure funding forecasts are based on current levels of expenditure. The assumption being that this level of funding is enough to deliver the current service levels.

The forecasts estimated in this AMP should be used as an indication of expenditure levels and distribution required for the Long-Term Financial Plan.

## Long -Term Financial Plan Summary

The LTFP funding available for New/upgrade, operations, maintenance and infrastructure renewals is shown in table 16. The total allocation over the term of the LTFP is \$11.63M or \$1.63M per annum

*Table 18: The LTFP funding available for New/upgrade, operations, maintenance and infrastructure renewals*

| Financial Year Ending | Operations & Maintenance | Renewals  | Total       |
|-----------------------|--------------------------|-----------|-------------|
| 2022/23               | \$592,334                | \$546,000 | \$1,138,334 |
| 2023/24               | \$602,452                | \$559,000 | \$1,161,452 |
| 2024/25               | \$612,436                | \$736,000 | \$1,348,436 |

|              |                    |                    |                     |
|--------------|--------------------|--------------------|---------------------|
| 2025/26      | \$622,283          | \$768,000          | \$1,390,283         |
| 2026/27      | \$631,987          | \$601,000          | \$1,232,987         |
| 2027/28      | \$641,544          | \$623,000          | \$1,264,544         |
| 2028/29      | \$650,949          | \$517,000          | \$1,167,949         |
| 2029/30      | \$663,875          | \$543,000          | \$1,206,875         |
| 2030/31      | \$678,000          | \$353,000          | \$1,031,000         |
| 2031/32      | \$692,125          |                    | \$692,125           |
| <i>Total</i> | <i>\$6,387,985</i> | <i>\$5,246,000</i> | <i>\$11,633,985</i> |

The new/upgrade CAPEX allowance is fund planning, design and construction activities relating to the sewerage treatment plant project.

The current LTFP shows a total planned expenditure on both operations/maintenance and capital renewal of \$11,633,985.

## Operations & Maintenance

Operations and Maintenance activities relate to the day to day running and upkeep of assets, the costs of which are particularly significant for dynamic/short-lived assets.

Operations expenditure is recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, e.g. power, fuel, plant equipment, street sweeping, mowing, on-costs and overheads but excludes maintenance and depreciation.

Maintenance activities are those necessary for retaining an asset as near as practicable to its original condition, including regular ongoing day-to-day work necessary to keep assets functioning and in good repair. It is operating expenditure required to ensure that the asset reaches its expected useful life.

## Maintenance Specifications

The links below contain the maintenance specification details (A summary of maintenance activities is attached in

*Table: 19: Operations and Maintenance Documents*

| Maintenance Specification Details |               |  |                    |
|-----------------------------------|---------------|--|--------------------|
| Document                          | Status        |  | Document Reference |
| Sewerage SLA                      | Up to Date    |  | Draft              |
| Activity Specification            | Up to Date    |  | Draft              |
| Maintenance Manual                | To be Drafted |  |                    |

## Operations & Maintenance Program

Currently maintenance is managed based on historical information and trends. The maintenance service objectives are to:

- Maintain Council's infrastructure in a safe, serviceable and aesthetic condition to the satisfaction of Council and the community;
- Maintain and preserve the functionality and value of the existing assets;
- To provide and maintain a safe environment of the community within the constraints of Council's financial capacity and resource capability, while displaying a reasonable 'duty of care'; and
- Ensure the provision of a high standard of customer service and that customer requests are responded to quickly efficiently.

Council's future operations and maintenance expenditure is based on last financial year's financial statements. This data only provided very limited granularity and insight into the operations and maintenance work it represents. The operations and maintenance expenditure is not broken down into specific task. From this data it is not possible to assess whether the level of operations and maintenance being conducted is appropriate or how it will change over the planning period.

The associated increase in required operations and maintenance expenditure has been included Council's adopted growth rate 1%.

The projected operations and maintenance expenditure can be seen in Table 20.

*Table 20: Forecast Operations and Maintenance expenditure*

| Financial Year Ending | Operations/Maintenance |
|-----------------------|------------------------|
| 2022/23               | \$592,334              |
| 2023/24               | \$602,452              |
| 2024/25               | \$612,436              |
| 2025/26               | \$622,283              |
| 2026/27               | \$631,987              |
| 2027/28               | \$641,544              |
| 2028/29               | \$650,949              |
| 2029/30               | \$663,875              |
| 2030/31               | \$678,000              |
| 2031/32               | \$692,125              |
| Totals                | \$6,387,985            |

The annualised expenditure on operations and maintenance activities for the next 10 years is \$638,800 per annum

**The current LTFP shows an operation and expenditure of \$860,496 per annum.**

## Depreciation

The table below represents the depreciation expense levels for the next 10 years.

*Table 21: Depreciation Expense levels*

| Year         | Annual Depreciation |
|--------------|---------------------|
| 2022/2023    | \$344,000           |
| 2023/2024    | \$352,600           |
| 2024/2025    | \$361,200           |
| 2025/2026    | \$269,800           |
| 2026/2027    | \$378,400           |
| 2027/2028    | \$387,000           |
| 2028/2029    | \$395,600           |
| 2029/2030    | \$404,200           |
| 2030/2031    | \$412,800           |
| 2031/2031    | \$421,400           |
| <i>Total</i> | <i>\$3,827,000</i>  |

## Renewals Program

This renewal requirement does not include any amount dedicated to a renewal project which upgrades or increases the level of service.

Table 22

| Year         | Annual Depreciation |
|--------------|---------------------|
| 2022/2023    | \$546,000           |
| 2023/2024    | \$559,000           |
| 2024/2025    | \$736,000           |
| 2025/2026    | \$768,000           |
| 2026/2027    | \$601,000           |
| 2027/2028    | \$623,000           |
| 2028/2029    | \$517,000           |
| 2029/2030    | \$543,000           |
| 2030/2031    | \$353,000           |
| 2031/2031    | \$0                 |
| <i>Total</i> | <i>\$5,246,000</i>  |

This plan provides an indicative program information for the renewal of the assets.

The current LTFP shows a capital renewal expenditure spend of \$2,262,500, well short of that required based on consumption. This requires further analysis and understanding.

### Asset Renewals Funding Ratio

A following ration is calculated based on the available renewal funding in the LTFP divided by the renewal expenditure forecasts.

Table 23: Asset Renewal Funding Ratio

|                                 |             |
|---------------------------------|-------------|
| Total Renewals Expenditure LTFP | \$5,246,000 |
| Total depreciation LTFP         | \$3,827,000 |
| Asset Renewal Funding Ratio     | 137%        |

Based on the current LTFP the asset renewal ratio is greater than the benchmark of 100%.

### New and Upgrade

New and Upgrade expenditure is for the provision of, or improvement to, an asset where the outlay can reasonably be expected to provide benefits beyond the year of outlay, including a value management approach that aims to produce the most economic and creative solutions.

### New/Upgrade Prioritisation Approach

The consideration taken into account when prioritising new/upgrade Projects. The discussion, may include some example criteria as documented below:

- New/upgrade projects that involved legislation drivers were prioritised over others that did not, to ensure compliance with statutory requirements.
- Once the legislation assessment was completed, projects were assessed against alignment with approved Councils plans, policies, and strategies. This was essential to ensure projects were not being developed outside the scope of strategic Council documents.

- A risk assessment was undertaken, to identify projects with higher risk. This was necessary to identify the consequences and impacts if projects were not undertaken. Projects identified as higher risk were prioritised over those with a lower risk.
- An assessment of community growth and demand based on technical levels of service on services within the Council area was undertaken. This highlighted that projects associated with growth areas as the northern growth corridor warranted being prioritised over those not located in such an area.
- For projects concerning the upgrade of existing assets, these were given priority over new assets in order to maximise/enhance existing infrastructure before investing in new additional assets.
- Include evidence of a value management approach taking into consideration the Whole Life costs of each project.

## Disposal/Rationalisation

Council has undertaken a review of the configuration, type and location of Sewerage Assets and the service process relevant to the activity, when an asset becomes uneconomical to maintain or rehabilitate, or is no longer required.

There is currently no information regarding any assets that may have been disposed of. It has been assumed that all assets on the register are in use.

## Asset Values

The valuation is based on:

- A review of the asset register;
- Unit rates based on Council's construction costs and published rates; and
- Condition assessments to determine remaining useful life.

*Table 24: Asset Valuations*

| Asset Class | Replacement Cost | Accumulated Depreciation | Fair Value   | Annual Depreciation |
|-------------|------------------|--------------------------|--------------|---------------------|
| Sewerage    | \$24,652,260     | \$5,424,403              | \$19,227,857 | \$348,020           |

Asset values are forecast to remain the same no new/upgrade capital works are planned at this stage.

The value of the depreciation assets will vary over the planning period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. The projected value of the depreciated assets is expected to increase as the expenditure on renewals is more than the depreciations rate.

## Plan Improvement

### Performance Measures

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

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

- The degree to which the exiting and projected services levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Council's Strategic Plan Associated plans,
- The Asset Renewal Funding Ratio achieving the target of 1.0.

### Monitoring and Review Procedures

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

### Evaluation of findings

It has been assessed that 95% of sewerage assets are either in New, Good or fair condition. The recent replacement of the Sewerage Treatment plant means that there are no large-scale replacement or renewal works envisaged for the foreseeable future. It is considered that the assets are being effectively managed having to our resources, service levels and community expectations.

The renewal program totalling \$5.25 million over the next ten years can be funded out of existing pricing policy with no increases beyond normal CPI adjustments for the life of the plan.

### Way Forward

1. Comprehensive risk analysis be conducted on assets in relation of criticality and asset condition
2. Evaluation of Maintenance and Operational costs and requirements to assess maintenance ratio.
3. Further development of Asset inspection, condition analysis and asset management techniques.
4. Establish asset Management planning regime and responsibilities.

## Appendix A – Asset Management Practices

Council is currently using Civica Authority financial system for asset accounting processes and related reporting functions. Asset data included in the system is directly integrated with the financial system.

The intention is to record, further develop and consolidate the processes used for asset and services management, and then review the systems available which will complement those processes. The timeframe for that review will be established in the Asset and Services Management Practices Improvement Strategy.

The finance module is the responsibility of the finance department. The engineering and finance departments are jointly responsible for ensuring the integrity of the system and asset financial information overall.

Authority has an asset database module that Council uses to monitor their assets. In this way the asset and financial data bases can be aligned. The key information flows into this asset management plan are:

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

The key information flows from this asset management plan are:

- The project works program and trends;
- The resulting budget and long-term financial plan expenditure projections; and
- Financial sustainability indicators.

These will impact the Long-Term Financial Plan, Strategic Long-Term Plan, Annual Budget and Departmental Business Plans and Budgets.

## Appendix B - Abbreviations

|                   |                                                 |
|-------------------|-------------------------------------------------|
| <b>AAAC</b>       | <b>Average annual asset consumption</b>         |
| <b>AMP</b>        | <b>Asset Management Plan</b>                    |
| <b>ARI</b>        | <b>Average Recurrence Interval</b>              |
| <b>CRC</b>        | <b>Current Replacement Cost</b>                 |
| <b>CWMS</b>       | <b>Community Wastewater Management Systems</b>  |
| <b>DA</b>         | <b>Depreciable Amount</b>                       |
| <b>EF</b>         | <b>Earthworks/Formation</b>                     |
| <b>IRMP</b>       | <b>Infrastructure Risk Management Plan</b>      |
| <b>LCC</b>        | <b>Life Cycle Cost</b>                          |
| <b>LCE</b>        | <b>Life Cycle Expenditure</b>                   |
| <b>LGIS</b>       | <b>Local Government Infrastructure Services</b> |
| <b>MMS System</b> | <b>Maintenance Management System</b>            |
| <b>PCI</b>        | <b>Pavement Condition Index</b>                 |
| <b>RV</b>         | <b>Residual Value</b>                           |
| <b>Vph</b>        | <b>Vehicles per hour</b>                        |

## Appendix C – Glossary

### Annual Service Cost (ASC)

1. Reporting actual cost. The annual accrual Cost of providing a service including operations, maintenance, depreciation, finance/opportunity and disposal costs less revenue.
2. For investment analysis and budgeting. An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost included operations, maintenance, depreciation, finance/opportunity and disposal costs, less revenue.

### Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

### Asset class

A group asset having a similar nature or function in the operations of an entity, and which, for purpose of disclosure, is shown as a single item without supplementary disclosure.

### 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 management (AM)

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

### Average annual asset consumption (AAAC)\*

The amount of a Council's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life) or total future economic benefits/service potential) and totalled for each and every asset OR by dividing the carrying amount

(depreciated useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

### Borrowings

A borrowings or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

### 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 cost needs to be allocated accordingly.

### Capital expenditure – expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future operations and maintenance costs, because it increases the Council's asset base, but may be associated with additional revenue from the new user group e.g. extending a drainage or road network, the provision of an oval or park in a new suburb for residents.

### Capital Expenditure – new

Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

### Capital expenditure – renewal

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability 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 asset being renewed. As it reinstates exiting service potential, it generally has no impact on

revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, e.g. 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.

#### **Capital expenditure - upgrade**

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 has originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in Council's asset base. E.g. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

#### **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

#### **Capitalisation threshold**

The value of expenditure on non-current assets above which the expenditure and below which the expenditure is charged as an expense in the year of acquisition.

#### **Carrying amount**

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

#### **Component**

Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

#### **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, including any costs necessary to place the asset into service. This includes on-off design and project management costs.

#### **Current replacement cost (CRC)**

The costs 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 one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

#### **Depreciable amount**

The cost of an asset, or other amount substituted for its cost, less its residual value.

#### **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.

#### **Funding gap**

A funding gap exists whenever an entity has insufficient capacity to fund asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be

determined assuming no additional operating revenue liabilities above levels currently planned or projected. A current funding gap means service levels have already or are currently falling. A projected funding gap if not addressed will result in future diminution of existing service levels.

#### **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 of the entity holding it.

#### **Impairment loss**

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

#### **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

#### **Key performance indicator**

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

#### **Level of service**

The defined service quality for a particular service/activity against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental impact, acceptability and cost.

#### **Life cycle cost**

1. Total LCC. The total cost of an asset throughout its life including planning, design, construction, acquisition, operation maintenance, rehabilitation and disposal costs.
2. Average LCC. The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual operations, 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 operations, maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure Cost to give an initial indicator of life cycle sustainability.

#### **Maintenance**

All actions necessary for retaining an asset near as practicable to its original condition, including regular ongoing day-to-day work necessary to keep assets operating, eg road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

#### **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.

#### **Reactive maintenance**

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

#### **Significant maintenance**

Maintenance work to repair components or replace sub-components that needs to be identified as a specific maintenance item in the maintenance budget.

#### **Unplanned maintenance**

Corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required services or to maintain its level of security and integrity.

#### **Maintenance and renewal gap**

Difference between estimated budgets and projected required expenditures for maintenance and renewal of assets to achieve/maintain specified levels, totalled over a defined time (e.g 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 (e.g. 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 is anticipated in determining the asset's useful life.

**Materiality**

The notion of materiality guides the margin of error acceptable, the degree of precision required, and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

**Modern equivalent asset**

Assets that replicate what is in existence with the most cost-effective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques.

**Net present value (NPV)**

The value to the Council of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows arising from e.g. the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

**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 Council, e.g. parks and playgrounds, footpaths, roads and bridges, libraries etc.

**Operations expenditure**

Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes eg power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation are on the other hand included in operating expenses.

**Operating expense**

The gross outflow of economic benefits, being cash and non-cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases relating to distributions to equity participants.

**Pavements management system**

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

**PMs Score**

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

**Rate of annual asset consumption**

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

**Recurrent expenditure**

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

**Recurrent funding**

Funding to pay for recurrent expenditure.

**Remaining useful life**

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

**Residual value**

The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of age and in the condition expected at the end of its useful life.

**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 Management**

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

**Section or segment**

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

**Service potential**

The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/public sector to value assets, particularly those not producing a cash flow.

**Service potential remaining**

A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits.

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 (Depreciated Replacement Costs/Depreciable Amount)

**Strategic Longer-Term Plan**

A plan covering the term of office of councillors (4years minimum) reflecting the needs of the community for the foreseeable future. It brings together the detailed requirements in Councils longer-term plans such as the service management plan and the long-term financial plan. The plan is prepared in consultation with the community and details where Council is at that point in time, where it wants to go, how it is going to get there, mechanisms for monitoring the achievement of the outcomes and how the plan will be resourced.

**Specific maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including potholes repairs, replacement of pump equipment etc. This work

generally falls below the capital/maintenance threshold and needs to be identified in a specific maintenance budget allocation.

**Sub-component**

Smaller individual parts that make up a component part.

**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 over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by Council.

**Value in use**

The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement costs (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's 'an ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits

Source: IPWEA, 2009, Glossary

