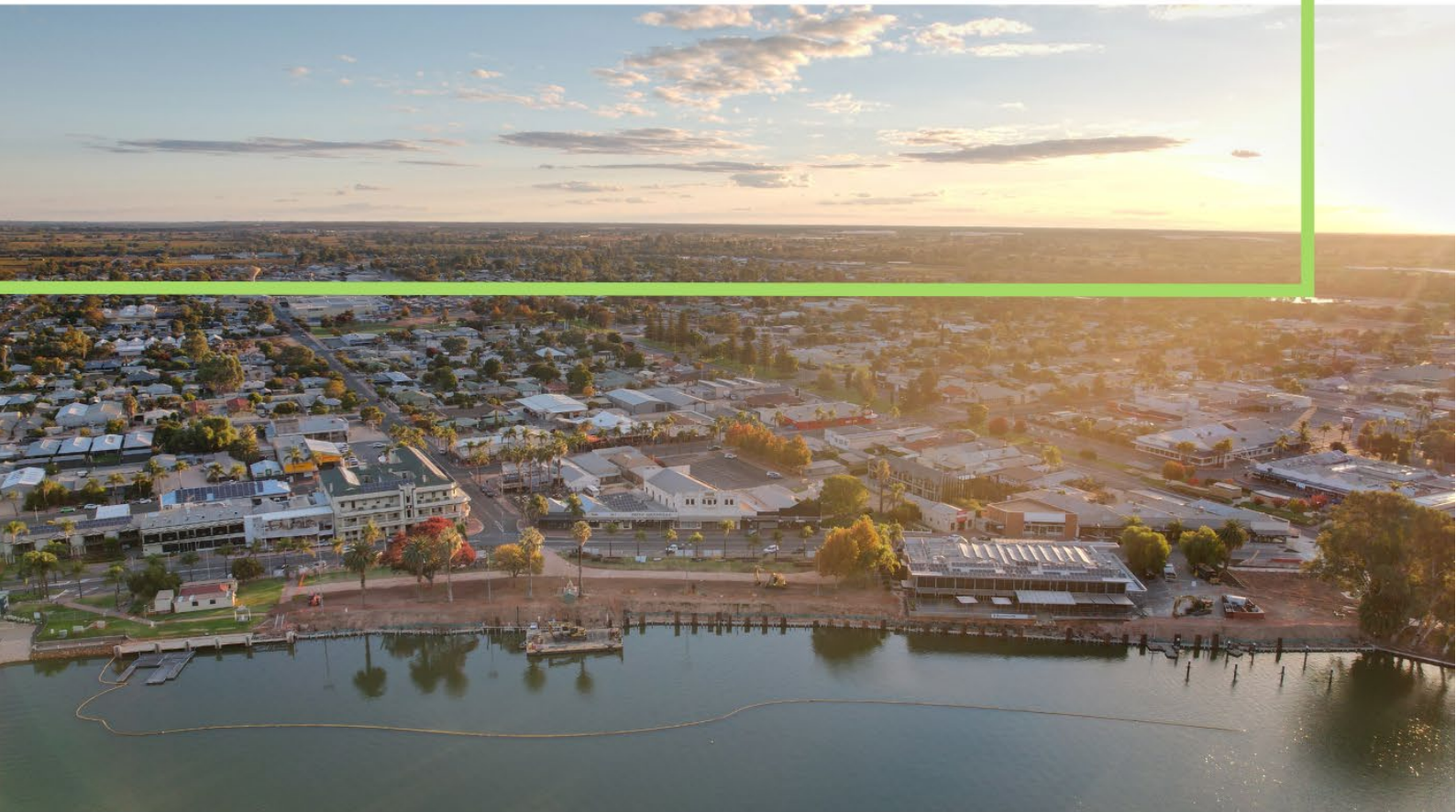


**2026**

# **RENMARK RESILIENT WATER FUTURES**



**RENMARK WEST  
CWMS EXPANSION**

Advocating for infrastructure investment to unlock capacity for new housing development

# Contents

|                                                    |    |
|----------------------------------------------------|----|
| Executive Summary .....                            | 4  |
| 1.0 Introduction.....                              | 6  |
| 1.1 Reason for Investigation.....                  | 6  |
| 1.2 Objectives.....                                | 6  |
| 1.3 Key assumptions .....                          | 6  |
| 2.0 Strategic Alignment .....                      | 8  |
| 2.1 Strategic Need .....                           | 8  |
| 2.2 Economic Considerations.....                   | 10 |
| 3.0 Growth Area – Current Conditions .....         | 11 |
| 3.1 Location and Topography .....                  | 11 |
| 3.2 Zoning and Development.....                    | 11 |
| 3.3 Geology.....                                   | 12 |
| 3.4 Existing Wastewater Management .....           | 12 |
| 4.0 Growth Area – Allotment Demand and Yield ..... | 13 |
| 4.1 Allotment Demand Analysis.....                 | 13 |
| 4.2 Allotment Yield Analysis .....                 | 14 |
| 5.0 CWMS Concept.....                              | 15 |
| 5.1 Options Assessment .....                       | 15 |
| 5.2 General Arrangement.....                       | 16 |
| 5.3 Pump Station .....                             | 17 |
| 5.4 Rising Main.....                               | 18 |
| 5.5 Wastewater Treatment Plant Capacity .....      | 18 |
| 6.0 Financial.....                                 | 19 |
| 6.1 Capital Costs .....                            | 19 |
| 6.2 Funding the expansion.....                     | 19 |
| 6.3 Cost Recovery Augmentation Charge.....         | 19 |
| 6.4 Operational Costs .....                        | 21 |
| 6.5 Operational Revenue.....                       | 22 |
| 6.6 Service Charge Impact.....                     | 22 |
| 7.0 Risk Management .....                          | 23 |
| 8.0 Project Delivery .....                         | 24 |
| 8.1 Delivery Model.....                            | 24 |
| 8.2 Governance Structure .....                     | 25 |
| 8.3 Stakeholder Engagement Plan .....              | 26 |
| 9.0 Conclusion .....                               | 27 |

|                                     |    |
|-------------------------------------|----|
| Appendix 1 Strategic Logic Map..... | 28 |
| Appendix 2: Risk Register.....      | 29 |

### List of Tables

|                                                           |    |
|-----------------------------------------------------------|----|
| Table 1: Alignment with Local Government Strategies.....  | 8  |
| Table 2: Alignment with State Government Strategies.....  | 9  |
| Table 3: Growth Scenarios.....                            | 13 |
| Table 4: Dwelling Building Approvals .....                | 13 |
| Table 5: Lot Yield Calculations.....                      | 14 |
| Table 6: Options Assessment.....                          | 15 |
| Table 7: CWMS Predicted Residential Flows .....           | 17 |
| Table 8: Renmark Wastewater Treatment Plant Capacity..... | 18 |
| Table 9: Preliminary Augmentation Charge Calculation..... | 21 |
| Table 10: Project Lifecycle .....                         | 24 |
| Table 11: Governance Structure .....                      | 25 |

| Version | Date             | Details                                                                                                                     | Author              | Approver |
|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------|----------|
| 1       | 30 January 2026  | Business Case finalised for ELT endorsement                                                                                 | S Baxter & B Watson | T Wolf   |
| 1.1     | 6 February 2026  | Final Business Case for presenting to Audit and Risk Committee                                                              | S Baxter & B Watson | T Wolf   |
| 1.2     | 11 February 2026 | Minor amendments following consideration by Audit and Risk Committee. Updated document presented to Council for endorsement | S Baxter & B Watson | T Wolf   |

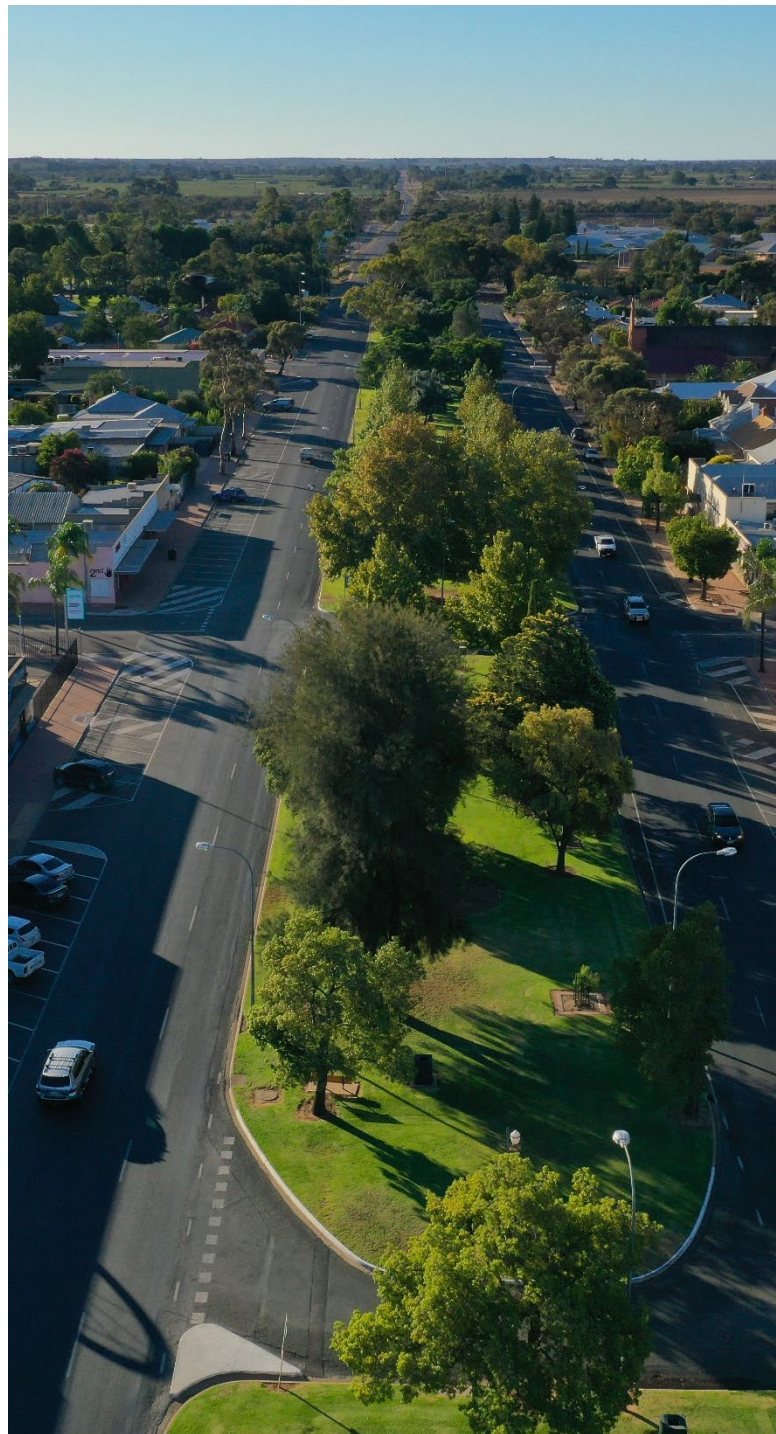
## Executive Summary

Renmark Paringa Council (Council) currently provides a Community Wastewater Management System (CWMS) for township areas, with the outer regions relying on onsite wastewater treatment systems.

To accommodate continued population growth outlined in the Renmark Paringa Growth Strategy 2025, the existing CWMS infrastructure needs expansion, particularly to the Renmark West area, within the existing Rural Neighborhood Zone. This area currently lacks CWMS infrastructure and is affected by the Bookmark Creek Subzone, which restricts the use of onsite wastewater systems due to groundwater protection concerns.

To address this constraint, this business case considers the benefits and risks of expanding the CWMS into this zone. The potential expansion covers 192 hectares northwest of Bookmark Creek, with an estimated capacity for 534 allotments. The topography is generally flat, and the area is accessible from Renmark's town centre (2 km away).

Several options are discussed within the business case, with the recommended CWMS solution comprising a collection rising main, extending from a main pump station that would be located on Tapalin Street. From this site, a rising main has been specified to convey all wastewater from upstream to the existing wastewater treatment plant on Paringa Street.



## Investment

**Capital Costs:** The estimated capital cost is \$3 million (preliminary estimate) for the CWMS expansion including pump station on Bookmark Ave, creek crossing and collection rising mains.

Through debt funding this investment, Council can undertake the expansion in a timely manner to meet the development demands. Over the life of the 10 year cost recovery period, it is estimated that there will be \$0.9 million in interest payable. This figure will be reliant on the number of allotments and timing of contributing to the expansion.

**Capital Cost Recovery:** It is proposed that Council will implement an augmentation charge for developers in the Rural Neighbourhood Zone to recover the capital investment required for the Renmark West CWMS Expansion Project. This charge has incorporated Cost-of-Capital recovery over the 10 year cost recovery period and will be reviewed annually as part of Council's Fees and Charges process.

## Risk Management

Failure to proceed with the CWMS expansion would result in significant opportunity costs, including stalled development, fragmented land use, and increased environmental risks from unmanaged wastewater. The business case outlines a comprehensive risk management framework addressing financial, environmental, and operational risks. Mitigation strategies include infrastructure agreements with developers, financial due diligence, and proactive stakeholder engagement to ensure confidence and resilience throughout the project lifecycle.

## Conclusion

The proposed CWMS expansion to the Renmark West Rural Neighbourhood Zone is a deliverable, strategically timed piece of infrastructure that can proceed now with appropriate funding and cost-recovery mechanisms in place. It represents an essential connection in Council's wastewater network and is necessary to enable future residential growth while maintaining compliance with environmental protection requirements.

The project is ready for implementation and has been structured to ensure successful delivery. Financial modelling confirms a viable pathway for staged cost recovery, and the design-and-construct approach provides a clear and efficient delivery method. The key environmental, technical, financial, and governance risks have been identified and appropriately mitigated through established controls, ensuring the expansion can be undertaken with confidence.

This infrastructure link is a critical enabler for housing growth in Renmark Paringa and demonstrates proactive infrastructure planning and delivery to support a well-planned expansion.

## 1.0 Introduction

### 1.1 Reason for Investigation

Renmark Paringa Council (Council) currently provide a Community Wastewater Management System (CWMS) throughout its township area. Outer areas of Council's district are not serviced by the existing CWMS infrastructure and are reliant on onsite wastewater treatment and disposal systems.

Population growth over the last 50 years has built out the majority of vacant land located within Council's current CWMS infrastructure's reach and requires the extension of the scheme to support further population growth.

In 2025, Council completed a project to upgrade the existing wastewater treatment plant that captures and processes the township's wastewater, this upgrade provides additional capacity to accommodate future growth of the area to further support new development.

Council's current Renmark Paringa Growth Strategy 2025 (Growth Strategy) highlights a focused future development location approximately 1km to the Northwest of the existing WWTP across Bookmark Creek. This development area currently does not have CWMS infrastructure installed and is restricted by the "Bookmark Creek Subzone", under the SA Planning and Design Code, where the installation of onsite wastewater treatment systems when dividing the land into allotments less than 2 hectares in area is both challenging and costly. This "Bookmark Creek subzone" is in place to ensure development does not compromise the quality of groundwater adjacent to Bookmark Creek. Due to this subzone covering the majority of this proposed growth area, CWMS infrastructure is required. A key supporting factor to completing this investigation is to simplify the land division approval pathway, while maximising the allotments brought to market in a timely fashion.

### 1.2 Objectives

This report has been prepared to investigate the feasibility of a CWMS installation in the area Northwest of Bookmark Creek.

The purpose of this investigation is to objectively evaluate the viability of the proposed CWMS expansion, considering factors such as strategic need, technical feasibility, community demand and financial costs and benefits to aid further discussions and decisions for proceeding. This report does not document a full system design, it explores design and construction elements using a preliminary CWMS layout including rising main alignments and pump station requirements.

### 1.3 Key assumptions

Through the development of this business case, the following key assumptions have been made:

#### 1. Demand & Growth

- a. Renmark Paringa Council will experience steady demand for rural neighbourhood living aligning to the stretch growth rate within the Growth Strategy over the next 20 years.
- b. By unlocking this growth area, the stretch growth number may be exceeded.
- c. Property connections will increase gradually as new allotments are created.
- d. The connection of existing dwellings to the proposed CWMS has been allowed for within the design of the system, timing of connections and uplift to revenue has not been included in forecasts.
- e. 15% of the Renmark West Rural Neighbourhood Zone is unlikely to be developed in alignment with the zone policy.

## **2. Regulatory & Compliance**

- a. The CWMS will meet current environmental and regulatory requirements, with only minor future changes expected.

## **3. Financial & Funding**

- a. Capital and operating costs reflect current market conditions and typical CWMS operations. These will be refined during the design phase.
- b. The project can be funded through Council resources, debt facilities, user charges and remains viable without grants. Grant funding can also accelerate the delivery of lots.
- c. Property owners will be charged according to current Council CWMS pricing policies.
- d. Annual Cost-of-Capital calculations being tied to the 10-year CAD facility interest rate. (currently 5.25%)
- e. The administration costs include upfront facility establishment costs (along with costs to produce the business case) of \$50,000 then annual facility management costs of \$10,000 p.a.

## **4. Technical & Asset Performance**

- a. The Renmark Wastewater Treatment Plant has sufficient capacity to handle additional flows from Renmark West.
- b. The allotment yield is impacted by the land consumption associated with the pre-existing and forecast roads, utilities and other land use at this location, therefore a discounting of 34.6% has been applied to total lot yield.

## **5. Delivery & Implementation**

- a. Project delivery will follow Council's standard project management framework through the design, procurement, and construction processes without major delays on endorsement.
- b. All foreseeable risks have been initially mitigated through the Risk Register within this business case and can be managed through standard project controls, with no major unexpected risks anticipated through the delivery stage.

## 2.0 Strategic Alignment

### 2.1 Strategic Need

Given the limited extent of existing CWMS coverage, Council's recent investment in additional treatment capacity, and the identification of Renmark West as a future residential growth area, there is a clear strategic requirement to extend wastewater servicing beyond the current township boundary.

The Growth Strategy identifies Renmark West as the logical and preferred location for future residential development. However, statutory planning controls associated with the Bookmark Creek Subzone place firm limits on the use of onsite wastewater systems in this area to protect groundwater quality. These controls effectively limit residential subdivision from proceeding in the absence of reticulated wastewater infrastructure.

As a result, the lack of CWMS infrastructure now represents the primary constraint to implementing Council's adopted growth framework. Without addressing this constraint, Council cannot realise planned residential land supply, and the objectives of both the Growth Strategy and the Community Plan relating to population growth, housing availability, and environmental protection cannot be achieved.

The proposed CWMS expansion is therefore not just an incremental enhancement to existing services, but an enabling investment required to:

- implement Council's strategic land use planning;
- support timely and orderly residential development;
- protect sensitive groundwater and environmental assets; and
- maximise the value of Council's recent investment in wastewater treatment capacity.

Delivering the CWMS expansion at this point ensures that infrastructure provision is aligned with strategic planning intent, simplifies the land division approval pathway, and enables residential allotments to be brought to market in a coordinated and timely manner. Without this investment, development in the identified growth area will remain constrained, and Council's strategic growth objectives cannot be realised.

**Table 1: Alignment with Local Government Strategies**

| Local Strategy                                          | Strategic Intent                                                                                                         | CWMS Project Response                                                                   | Strategic Outcome Enabled                                                                     |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Renmark Paranga Council Community Plan 2024–2034</b> | Support sustainable population growth, protect environmental assets, and deliver resilient and efficient infrastructure. | Provides reticulated wastewater servicing to a groundwater-sensitive growth area.       | Sustainable residential growth enabled while protecting groundwater and environmental values. |
| <b>Renmark Paranga Growth Strategy (2025)</b>           | Identify Renmark West as a key residential expansion area and remove infrastructure constraints to development.          | Removes the wastewater servicing constraint, enabling subdivision and housing delivery. | Residential land supply assumptions underpinning the Growth Strategy can be realised.         |

Council's strategic framework establishes a clear requirement for infrastructure to enable planned growth while protecting environmental assets. The Community Plan 2024–2034 articulates long-term objectives relating to population growth, environmental protection and resilient infrastructure, all of which depend on compliant wastewater servicing through both planning and delivery. The Growth Strategy outlines the Council's population growth ambitions by identifying a stretch growth target of 65 new dwellings per year (currently averaging 42) as achievable with the right strategic actions. Further, the Growth Strategy specifically identifies Renmark West as a key residential expansion area and recognises wastewater

servicing as a critical enabling constraint. The consideration of this CWMS expansion directly implements this strategy by removing that constraint. Without the project, the outcomes of these strategies cannot be achieved.

**Table 2: Alignment with State Government Strategies**

| State Government Strategy                                                           | Strategic Intent / Direction                                                                                                                   | CWMS Project Response                                                                                                | Strategic Outcome Enabled                                                                        |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Murray Mallee Regional Plan</b>                                                  | Support sustainable growth in regional centres through coordinated land use planning and enabling infrastructure.                              | Provides wastewater infrastructure required to enable residential development in a designated regional growth area.  | Planned residential growth supports regional population sustainability.                          |
| <b>20-Year State Infrastructure Strategy (South Australia)</b>                      | Deliver enabling infrastructure that supports growth, regional liveability, environmental protection and maximises value from existing assets. | Functions as enabling infrastructure unlocking housing supply and leveraging existing wastewater treatment capacity. | Infrastructure investment supports long-term growth and liveability outcomes.                    |
| <b>Regional Development South Australia – Infrastructure Prioritisation 2023/24</b> | Prioritise infrastructure that removes constraints to regional development and supports population retention and attraction.                   | Removes a critical infrastructure constraint limiting residential development in a regional centre.                  | Improved housing availability supports workforce attraction and regional economic participation. |
| <b>State Planning Policies</b>                                                      | Align land use planning with infrastructure sequencing while protecting environmental assets and water resources.                              | Delivers wastewater infrastructure ahead of development in a groundwater-sensitive area.                             | Development proceeds in accordance with State planning and environmental policy.                 |
| <b>South Australian Planning Strategy</b>                                           | Promote orderly, infrastructure-led growth within existing townships and efficient use of infrastructure.                                      | Supports infrastructure-led residential expansion within the existing Renmark township footprint.                    | Efficient infrastructure use and protection of environmental values.                             |
| <b>SA Housing and Homelessness Strategy 2020–2030</b>                               | Increase housing supply in regional South Australia and remove infrastructure barriers to land release.                                        | Unlocks residential land constrained by wastewater servicing limitations.                                            | Increased housing supply and choice in a regional centre.                                        |
| <b>SA Water Security and Reuse Policy Framework</b>                                 | Protect groundwater and surface water systems and maximise wastewater reuse.                                                                   | Centralises wastewater treatment and enables beneficial reuse.                                                       | Reduced environmental risk and improved water security outcomes.                                 |
| <b>Climate Change Strategy for South Australia</b>                                  | Build climate-resilient infrastructure and support circular resource use.                                                                      | Provides resilient wastewater infrastructure suited to floodplain and climate-variable conditions.                   | Improved resilience to extreme weather and sustainable resource use.                             |

Across State planning, infrastructure, housing and water policy frameworks, a consistent requirement is that infrastructure must be delivered ahead of development to unlock housing supply while protecting environmental assets. The CWMS expansion into Renmark West directly gives effect to this policy intent by addressing a wastewater servicing constraint that currently restricts residential development under State planning controls.

By unlocking serviced residential land within an existing rural neighbourhood policy zone boundary, the project supports State priorities for increased housing supply, improved regional liveability and efficient use of infrastructure. Centralised wastewater management further supports State objectives for groundwater protection, water reuse and climate-resilient infrastructure. These outcomes cannot be achieved in Renmark West without the project.

Finally, as demonstrated in the Strategic Logic Map (appendix 1), the Renmark West CWMS expansion addresses critical planning, environmental, and infrastructure constraints that currently limit compliant development and sustainable growth. By centralising wastewater servicing and leveraging existing treatment capacity, the project enables timely land release, reduces groundwater contamination risks, and improves resilience against climate variability. This strategic response unlocks housing supply, supports Council's Growth Strategy, and delivers long-term financial sustainability while safeguarding environmental and public health outcomes.

## 2.2 Economic Considerations

The Growth Strategy highlights Renmark West as a priority area for residential expansion, driven by the urgent need for additional housing lots to accommodate population growth and evolving community needs. A key enabler of this development is Council's investment in wastewater infrastructure, which removes a critical barrier to subdivision and construction.

By unlocking land for development, this infrastructure facilitates significant economic benefits, stimulating local employment, attracting new residents, and increasing demand for goods and services. Additionally, the Growth Strategy outlines that increasing serviced land for housing with a diverse size mix enhances opportunities to attract and retain working age populations, critical for economic sustainability and growth.

The opportunity cost of inaction is considerable- without infrastructure, development stalls, leading to lost economic activity, reduced developer investment, further compromise to the horticultural zone through these needs being met elsewhere and missed chances to strengthen Renmark's regional role through increasing population economies of scale. Conversely, proceeding with infrastructure works catalyses growth, ensures long-term sustainability, and delivers tangible returns for the community.

## 3.0 Growth Area – Current Conditions

### 3.1 Location and Topography

The proposed CWMS expansion area, presented in Figure 1, is located to the Northwest of Bookmark Creek bounded by Ral Ral Avenue, Bookmark Avenue and Arumpo Street. The area is easily accessed and approximately 2.0km to Renmark's Town Centre.

Currently the area is Zoned Rural Neighbourhood with the Bookmark Creek Subzone covering the area North of Cucumunga Street. The total area that is proposed to be serviced by new CWMS infrastructure is approximately 192Ha, with a minimum allotment size of 2,000m<sup>2</sup>.

The future stage area marked in Figure 1 has been excluded from the assessment within this business case as this area has already experienced rural neighbourhood growth with onsite wastewater systems and is not impacted by the Bookmark Creek Overlay.



**Figure 1: Proposed CWMS Expansion Area**

The CWMS expansion area borders the Bookmark Creek flood plain to the Southeast, this flood plain is leveed adjacent Bookmark Avenue. The current flood levee system adjacent the CWMS expansion area is built to withstand major flooding events and will protect the proposed development area including associated CWMS infrastructure.

The study area has a slow fall in all directions towards the intersection of Tapalin Street and Bookmark Avenue; this low area will be the proposed location for the main pump station that will convey all wastewater to the Wastewater Treatment Plant on Paranga Street. To establish these current conditions, a desktop review of a digital elevation model has been conducted to provide initial certainty for these considerations.

The proposed development area is generally very flat, a rising main has been nominated to reduce overall trench/excavation depths and address the length the collection pipe needs to reach from the central pump station.

The water table within the nominated CWMS expansion area is predicted to be approximately 2.5-3.5m below surface level, shallower towards Bookmark Creek. This ground water will make infrastructure installation challenging therefore a dewatering allowance, based on similar CWMS construction projects in the Renmark area, has been made in the cost estimates to address this risk.

### 3.2 Zoning and Development

Development within the proposed CWMS expansion area is guided by the Planning and Design Code, which forms part of the Planning Development and Infrastructure Act 2016.

The study area falls within a Rural Neighbourhood Zone, of which developers generally seek a development outcome related to larger allotments, providing a spacious rural setting or secluded residential lifestyles within semi-rural or semi-natural environments. The Rural Neighbourhood zone acknowledges that onsite

wastewater treatments are likely to be necessary, however, the Bookmark Creek Subzone limits the use of onsite wastewater disposal within its boundary.

The Bookmark Creek Subzone overlay is additional conditions placed on the area within the proposed CWMS expansion area North of Cucumunga Street. The additional conditions severely restrict onsite wastewater systems to ensure future development does not compromise the quality of ground water due to its proximity to the River Murray's anabranch, Bookmark Creek.

Due to this overlay's development restrictions, most of the land within the Renmark West Rural Neighbourhood zone will continue to experience limited development for residential use without CWMS infrastructure installed.

### 3.3 Geology

Renmark is located within the geological Murray Basin area, the Murray Basin is a roughly circular intracratonic depression filled by almost 600 m of relatively flat-lying sediments. These strata overlay several older and smaller disconnected basins. It has an areal extent of about 450,000 km<sup>2</sup>, of which approx. 300,000 km<sup>2</sup> are in South Australia (John T Jennings. (2009) *Natural History of the Riverland and Murraylands*. Royal Society of Adelaide Inc, P4). The Renmark West area is generally known to have a layer of fine to medium grained sand over Clay.

### 3.4 Existing Wastewater Management

Currently wastewater generated from existing dwellings within the proposed CWMS expansion area is treated and disposed onsite via individual systems that generally comprise of a combination of soakage and aerobic wastewater treatment systems.

Onsite wastewater requirements restrict lot layout and when not maintained adequately can pose health risks to humans within the vicinity and the surrounding natural habitat. Ground water contamination becomes more likely, especially in areas with shallow water tables.

The provision of CWMS to this zone, will enable existing residences to connect the CWMS network when their current wastewater disposal solution requires upgrading. This is expected to further enhance environmental outcomes and the sustainability of residential properties in the zone.

## 4.0 Growth Area – Allotment Demand and Yield

### 4.1 Allotment Demand Analysis

Renmark Paringa Council's estimated resident population increased by 0.6% in 2024 to 10,173 people (ABS, 2024). The Growth Strategy identified three growth scenarios for planning purposes, Historic, High and Stretch and the number of new dwellings required to accommodate each scenario.

|                           | Historic Growth | High Growth | Stretch Growth |
|---------------------------|-----------------|-------------|----------------|
| <b>% Annual Growth</b>    | 0.6%            | 1.1%        | 1.5%           |
| <b>Dwellings per year</b> | 23              | 47          | 65             |

Source: Renmark Paringa Growth Strategy 2025

**Table 3: Growth Scenarios**

The 10 year average for new dwellings in Renmark is 42 per year, including an average of 26 in Renmark and 16 in the Renmark Surrounds statistical area, which includes the horticulture area and smaller townships. New dwelling approvals peaked in 2020/21 with 35 approved in Renmark and 29 in the Renmark Surrounds area.

| Year           | Renmark   | Renmark Surrounds | Renmark Paringa Council |
|----------------|-----------|-------------------|-------------------------|
| <b>2015/16</b> | 29        | 12                | 41                      |
| <b>2016/17</b> | 34        | 10                | 44                      |
| <b>2017/18</b> | 26        | 19                | 45                      |
| <b>2018/19</b> | 12        | 18                | 30                      |
| <b>2019/20</b> | 26        | 14                | 40                      |
| <b>2020/21</b> | 35        | 29                | 64                      |
| <b>2021/22</b> | 26        | 13                | 39                      |
| <b>2022/23</b> | 31        | 12                | 43                      |
| <b>2023/24</b> | 26        | 9                 | 35                      |
| <b>2024/25</b> | 18        | 20                | 38                      |
| <b>Average</b> | <b>26</b> | <b>16</b>         | <b>42</b>               |

Source: ABS, Building Approvals for dwellings, 2016-2025

**Table 4: Dwelling Building Approvals**

Historic take up in the Renmark Surrounds area provides some indication of the possible take up of rural neighbourhood allotments, however market sounding from local builders and real estate agents indicates the supply of serviced rural lifestyle lots has been historically constrained, and unlocking supply of this product will likely result in induced demand from locals and purchasers from out of town and region.

The projected 10 year take up of Rural Neighbourhood lots in Renmark West under the Stretch Growth scenario is an average of 30 lots per year. With lower take up of 20 and 10 lots under the High Growth and Historic Growth Scenarios.

These numbers were calculated based on the following assumptions:

- Renmark Surrounds maintaining a 37% share of development which is consistent with the 10 year average;
- Renmark West capturing 75% of the demand in Renmark Surrounds, allowing for other land divisions and new dwellings in the horticulture area; and,

- An induced demand factor of 1.67 in the stretch growth scenario and 1.5 in the High and Historic scenarios. This is to account for historic undersupply and the ability for the product to attract interest from out of region.

Currently there is sufficient zoned land supply for the short to medium residential growth forecast, however, the actual availability of this land is uncertain. The identified “Land Supply” may not necessarily be an accurate reflection of available and developable land.

The Growth Strategy provides a detailed road map of required infrastructure and identifies the Renmark West proposed Growth Area needing a full CWMS installation to enable achievable development.

There are currently just under 100 existing dwellings located in the proposed CWMS expansion area, these homes use an onsite wastewater treatment and disposal system to manage their wastewater. These allotments will be expected to connect to the CWMS in time, however, have not been factored into the forecast 30 allotment connections per year.



**Figure 2: Available Growth in Renmark West**

## 4.2 Allotment Yield Analysis

The total lot yield developed for the purpose of this business case has been calculated by considering the total available area and making an allowance for existing roads and unusable land and forecast roads & open space. Furthermore, there are properties within the expansion area that are unlikely to further subdivide for primary production purposes. This has been addressed within the lot yield calculations below.

|                                                                                         |            |
|-----------------------------------------------------------------------------------------|------------|
| Renmark West Expansion Area (m2)                                                        | 1920000    |
| 34.6% area discount for roads, open space and unusable land- existing and forecast (m2) | -664320    |
| Remaining area (m2)                                                                     | 1255680    |
| Minimum Lot Size (m2)                                                                   | 2000       |
| <b>Number of allotments within area</b>                                                 | <b>628</b> |
| Allotments confirmed through Active Land Division Applications                          | 153        |
| Number of lots remaining within expansion area                                          | 475        |
| 15% allowance for allotments unlikely to subdivide                                      | -94        |
| <b>Revised number of allotments</b>                                                     | <b>534</b> |

**Table 5: Lot Yield Calculations**

## 5.0 CWMS Concept

### 5.1 Options Assessment

Through the initial stages of the investigation, an options assessment was developed for considering an appropriate course of action for addressing this emerging demand. This assessment is summarised below:

**Table 6: Options Assessment**

| <b>Option 1: Do Nothing</b>                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: No extension of wastewater services into the Renmark West area.                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Positives:</b>                                                                                                                                                                                                                   | <b>Key Drawbacks:</b>                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>No immediate capital expenditure for Council.</li> <li>Maintains status quo with no new assets or regulatory changes.</li> <li>Short-term simplicity for planning and operations.</li> </ul> | <ul style="list-style-type: none"> <li>Stifles development and constrains growth potential due to the Bookmark Creek Overlay.</li> <li>Inconsistent with strategic land-use planning and future demand.</li> <li>Increased risk of ad-hoc, suboptimal solutions emerging over time.</li> <li>Increased risks of future environmental impacts, likely requiring costly infrastructure retrofitting to resolve.</li> </ul> |

| <b>Option 2: Onsite Systems / Holding Tank Designs</b>                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: Individual properties use septic or holding tank systems.                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                         |
| <b>Positives:</b>                                                                                                                                                                                                                                                                         | <b>Key Drawbacks:</b>                                                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>Low initial cost for Council, costs borne by property owners.</li> <li>Enables limited, short-term development where CWMS isn't available.</li> <li>Practical for isolated or very low-density lots where reticulation is uneconomical.</li> </ul> | <ul style="list-style-type: none"> <li>Potential for poor environmental outcomes and compliance risks (failures, seepage, variable maintenance).</li> <li>High lifecycle costs and operational burden on property owners.</li> <li>Leads to a fragmented patchwork of systems and standards.</li> </ul> |

| <b>Option 3: Developer-Led CWMS Infrastructure</b>                                                                                                                                                                                            |                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description: Developers construct CWMS infrastructure required to support land divisions in the Renmark West area.                                                                                                                            |                                                                                                                                                                                                                                                                              |
| <b>Positives:</b>                                                                                                                                                                                                                             | <b>Key Drawbacks:</b>                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>Shifts initial capital burden to developers.</li> <li>Can accelerate delivery aligned to development timelines.</li> <li>Reduces Council workload initially (planning/design/construction).</li> </ul> | <ul style="list-style-type: none"> <li>Likely to be not economically viable for individual developers, would require a significant upfront headworks investment from one developer.</li> <li>Disjointed networks if delivered piecemeal across multiple projects.</li> </ul> |

#### Option 4: Council-Led CWMS Expansion (Preferred Option)

Description: Council plans, designs, and delivers a coordinated CWMS expansion into Renmark West.

##### Positives / Why Preferred:

- Integrated, future-proofed network built to Council standards.
- Best environmental performance and consistent regulatory compliance.
- Supports orderly, sustainable development and expands equitable service provision.
- Improved whole-of-life economics, avoids duplication and fragmentation; optimises staging and capacity.
- Clear governance and accountability for design, delivery, and asset stewardship.

##### Considerations:

- Requires capital investment, project governance, and staged delivery planning.
- Opportunity to leverage external funding and align with strategic growth corridors.

Overall, Options 1, 2, and 3 are not viable long-term solutions due to planning and development constraints, environmental and cost burdens on property owners and developers paired with the fragmented, inconsistent, and economically inefficient networks they would create. Therefore, Option 4 was considered the preferred solution, a more detailed assessment on this option has been established as part of this business case development.

## 5.2 General Arrangement

The proposed CWMS expansion would provide service across the area requiring a pump station centrally located to capture and convey wastewater by rising main to the existing Wastewater Treatment Plant on Paranga Street as shown in Figure 3.

The pump station would then receive wastewater through a rising main located on Tapalin and Ontario Streets.

Depth restrictions are in place to reduce impacts on existing infrastructure and to minimise effects of encountering the water table during construction.



Figure 3: Proposed CWMS Layout

The central location of the pump Station and associated infrastructure has been identified as a high priority to support proposed land divisions. Figure 4 shows the parcels of land that developers have approached Council with or have been lodged within the Plan SA portal. All of these land divisions are highlighted within the Growth Strategy.



**Figure 4: Land Divisions requiring infrastructure provisions to proceed**

### 5.3 Pump Station

The preliminary CWMS design comprises of a central pump station to effectively provide reach throughout the proposed rural neighbourhood CWMS expansion area. The pump station has been earmarked to be located on the road reserve adjacent the Tapalin Street and Bookmark Avenue intersection. This pump station would receive all wastewater from the proposed CWMS area and convey it under the Bookmark Creek Floodplain by rising main to the existing Wastewater Treatment Plant on Paranga Street. The predicted flows for the pump station are presented in the table below which has been developed in accordance with the SA Health CWMS Design Criteria.

| Pump Station | Area (ha) | Lot Size (m <sup>2</sup> ) | Number of Connections | Flow per Equivalent Person | Rate of Occupancy | Average Daily Flow (L/s) |
|--------------|-----------|----------------------------|-----------------------|----------------------------|-------------------|--------------------------|
| PS1          | 192       | 2000                       | 534                   | 170                        | 2.6               | 236,028                  |

**Table 7: CWMS Predicted Residential Flows**

The exact pump station dimensions and flow requirements will be finalised through the project delivery phase.

## 5.4 Rising Main

The proposed rising main for the CWMS expansion area will convey wastewater from the pump station towards the East, under Bookmark Creek to the existing Renmark Wastewater Treatment Plant on Paringa Street.

This rising main will be approximately 2200m with 170m needing to be directionally drilled under Bookmark Creek.

The proposed rising main alignment will be a gradual fall from the pump station up to the wastewater treatment plant with a slight low area at Bookmark Creek. The mains vertical alignment may require air valves at high spots in the line, this arrangement will depend on final design considerations.

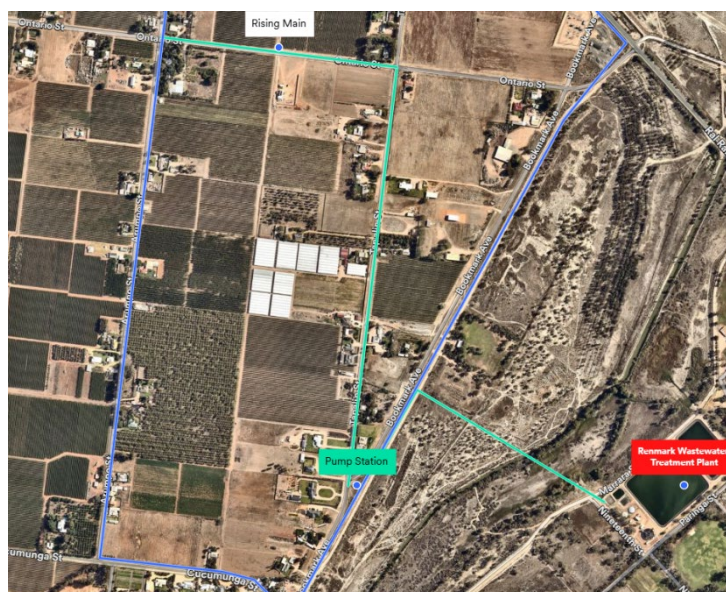


Figure 5: Proposed Rising Main

## 5.5 Wastewater Treatment Plant Capacity

The Renmark Wastewater Treatment Plant has recently undergone a significant upgrade which improved the water treatment process through modernised equipment and provided greater capacity for in flows. The capacity assessment below outlines the impact that this expansion would have on the plant. Furthermore, the design of the plant has the potential to stretch the capacity to 1500KL per day however this will have to be investigated further to understand the long term viability.

### Impact of CWMS Expansion to Renmark WWTP Plant Capacity

|                                        | kl / day |
|----------------------------------------|----------|
| Current Plant Capacity after upgrades  | 1400     |
| Current Average daily Inflows to Plant | 800      |
| Available Capacity                     | 600      |
| Renmark West Expansion inflows         | 236      |
| Total Increased inflows to Plant       | 1036     |
| Remaining Capacity %                   | 26%      |

Table 8: Renmark Wastewater Treatment Plant Capacity

## 6.0 Financial

### 6.1 Capital Costs

A preliminary cost estimate of approximately \$3 million has been prepared for the Renmark West CWMS expansion utilising Rawlinson's Construction Cost Handbook, with a local context rate applied and recent tendered prices on similar infrastructure projects.

This estimate includes the essential early-stage investigation and design activities required to define the project scope, confirm technical feasibility, and obtain necessary approvals. It also captures the major construction elements associated with delivering new rising mains, pump station infrastructure, and specialist works such as creek crossings and dewatering.

The costs reflect a planning level understanding of the project and include allowances for project management, contractor mobilisation, site establishment, and general overheads during the construction phase. A contingency of 30% has been applied to account for uncertainties typical of early phase infrastructure projects, including geotechnical conditions, environmental sensitivities, and market variability. This level of contingency is appropriate for this stage of the expansion and has been utilised in other similar size construction projects delivered by Council with success.

Overall, the \$3 million preliminary estimate provides a realistic early indication of the investment required to deliver a fully operational wastewater service extension to the Renmark West area, noting that figures will continue to refine as the project progresses through detailed design and procurement.

### 6.2 Funding the expansion

The proposed Renmark West CWMS Expansion is recommended for debt funding, with costs to be recovered through an augmentation charge applied to new allotments. According to the Local Government Association of South Australia's *Debt Information Paper*, debt is a legitimate and prudent financial tool for councils to fund long-life infrastructure assets.

Borrowing allows costs to be spread over the generations that benefit from the asset, supporting intergenerational equity and avoiding sharp rate increases or service reductions. The LGA framework encourages councils to use debt responsibly within sound financial management practices, ensuring transparency and sustainability. Applying debt funding for the Renmark West CWMS Expansion aligns with these principles and supports long-term community service delivery.

Current Long-Term Financial Plan (LTFP) modelling indicates a Net Financial Liabilities Ratio of between 15%-25% at the completion of the 2025-26 Financial Year. With the inclusion of a Renmark West Cash Advance Facility, this ratio is projected to increase to 40%-50% upon completion of the capital works (currently expected around 31 Dec 2026) before falling gradually as augmentation charges begin to be recovered. Notwithstanding this increase, the ratio remains within Council's adopted target range of 0-100%, ensuring compliance with established financial sustainability parameters.

### 6.3 Cost Recovery Augmentation Charge

To ensure the financial sustainability of the Renmark West CWMS Expansion Project, Council would apply an augmentation charge to developers within the Rural Neighbourhood Zone. This charge is designed to recover the capital investment required to expand the CWMS infrastructure to support future growth.

This cost recovery mechanism aligns with Council's strategic objective to promote responsible development while safeguarding the long-term viability of community infrastructure. The calculation of an appropriate charge is presented below in table 9. It should be noted that the augmentation charge would be separate

and in addition to the CWMS connection fee applicable to each allotment created. Through the development of the business case, a capacity contribution charge was considered for recovering the investment made to the Renmark Wastewater Treatment Plant. As this doesn't affect the consideration of the business case, this was excluded and will be addressed through the upcoming review of the CWMS Connection Charge.

Following the 2025 CWMS Accounting Practices Review conducted by BRM Advisory, Renmark Paranga Council has aligned its Community Wastewater Management System (CWMS) pricing methodology with the National Water Initiative (NWI) Pricing Principles and the CWMS pricing principles published by the Local Government Association of South Australia (LGASA).

This alignment provides a robust and transparent framework for determining CWMS service charges based on three core components:

1. **Operating Expenditure** – inclusive of all costs associated with the operation and maintenance of the CWMS network, net of income derived from water sales.
2. **Cost of Capital** – representing a return on Council-contributed assets.
3. **Risk Allowance** – currently applied at 1.5% to account for financial and operational uncertainties.

It is critical to note that Council is precluded from recovering the cost of capital on developer-contributed assets, as no upfront capital expenditure has been incurred by Council in constructing these assets.

The proposed Renmark West CWMS Expansion Project would be structured to ensure no financial impact on Council ratepayers or General Council Rates. The capital investment required to service future development within the Rural Neighbourhood Zone (assuming full take-up) will be fully recovered through augmentation charges paid by developers, rather than being funded by existing residents. Any remaining amount after 10 years will be recovered by the CWMS Service Charge.

### Application to the Expansion

Proposed in the Renmark West CWMS business case Council would secure borrowings against future ratepayer income and internally allocate these funds to the CWMS network, seeking a recovery for the utilisation of capital.

The pricing methodology for CWMS augmentation charges mirrors this approach; however, the developer is responsible for funding the augmentation charge rather than the entire CWMS network customers. This charge incorporates a development contribution to offset Council's initial capital outlay. The augmentation charge calculation is based on the following elements:

- **Operating Expenditure** – including costs associated with establishing and maintaining the borrowing facility.
- **Cost of Capital** – calculated as a return on funds advanced by Council, benchmarked against prevailing Cash Advance Debenture (CAD) interest rates.
- **Risk Allowance** – This is recovered through the risk allowance in the CWMS service charge to account for financial uncertainties.

Therefore, applying the above elements, table 8 below provides the calculation for an augmentation charge based on the preliminary estimate for capital investment.

#### **Preliminary Augmentation Charge Calculation**

|                                            |                    |
|--------------------------------------------|--------------------|
| Council Contributed Asset Base             | \$3,000,000        |
| Facility Creation & Management Expenditure | \$150,000          |
| Cost of Capital (5.5%, 10years)            | \$906,946          |
| <b>Total Capital Cost</b>                  | <b>\$3,996,946</b> |

|                                                                          |                |
|--------------------------------------------------------------------------|----------------|
| Total Number of Lots Confirmed through Active Land Division Applications | 153            |
| Total Number of lots remaining                                           | 475            |
| 15% allowance for allotments unlikely to subdivide                       | -94            |
| <b>TOTAL LOTS</b>                                                        | <b>534</b>     |
| <b>Charge Per Allotment</b>                                              | <b>\$7,485</b> |

*Table 9: Preliminary Augmentation Charge Calculation*

As developers pay augmentation charges, the Council-contributed asset base will progressively reduce. This dynamic is critical in determining CWMS network charges upon completion of the facility (after the 10-year term). At the conclusion of the Renmark West CAD facility, Council may elect to either:

- Roll over the borrowing facility for an additional term to continue recovering contributions from developers; or
- Absorb the residual liability into CWMS service charge, thereby incorporating the remaining cost base into Council-contributed assets for pricing purposes.

Developer contributions will be treated as capital offsets, and no cost of capital will be recovered on these amounts. Any residual cost base will be integrated into CWMS network pricing, enabling recovery for the cost of capital consistent with Council's adopted pricing principles.

This distinction has a direct impact on future pricing. As developer contributions offset Council's initial investment, the residual cost base attributable to Council decreases, reducing the cost-of-capital component embedded in the service charge calculation. In practical terms, the more capital recovered through augmentation charges, the smaller the long-term financial burden on the CWMS network and its customers. This mechanism supports intergenerational equity by ensuring that growth-related costs are borne by developers rather than existing customers, while still allowing Council to maintain compliance with full cost recovery principles.

The extent and timing of this change will depend on several factors, including the rate of development, the actual number of connections achieved each year, and the ongoing cost of operating and maintaining the expanded network. In early years, the financial benefit is modest because connection growth is incremental, but as more properties join the network, the cumulative effect becomes more pronounced.

## **6.4 Operational Costs**

As part of this business case, the maintenance and operation costs have been considered to understand the cost to operate the new infrastructure. The operational costs for the expansion have been estimated by increasing the current expenditure by the growth rate (approximately 1% per annum) over the 10 years and included additional desludging costs of approximately \$26,000.

This percentage applied is appropriate to forecast future operating costs with any changes being minor against the consideration of the entire proposed expansion and does not materially affect the business case proceeding.

The costs for operating and maintaining the infrastructure will be considered as part of the entire network when setting the annual CWMS service charge in alignment with the CWMS Accounting Methodology review and the National Water Initiative Pricing Principles.

## 6.5 Operational Revenue

The CWMS pricing framework is designed to achieve long-run full cost recovery in accordance with the National Water Initiative Pricing Principles and ESCOSA's regulatory requirements. This means the annual service charge must reflect the full cost of providing the CWMS service, including direct and indirect operating expenses, depreciation on CWMS assets, a real cost of capital on Council-contributed assets, and an allowance for risk, offset by any other income such as recycled water sales.

It has been assumed that a rate of 30 allotments per year are developed within the proposed CWMS upgrade area. Operational revenue is collected through the annual service charge that Council sets in alignment with the CWMS Accounting Methodology to all properties that are connected to the network.

The proposed CWMS expansion into Renmark West is expected to deliver a positive long-term impact on operational revenue. As the customer base grows through the addition of new allotments, the fixed and common costs of operating the CWMS will be distributed across a larger number of customers. This creates reduced pressure on the per-property charge over time, improving affordability for customers while maintaining compliance with full cost recovery principles.

It is important to note that these outcomes are indicative rather than prescriptive. Council will continue to review service charges annually in accordance with its CWMS Accounting Methodology, ensuring that charges reflect the full cost of service delivery, including operating expenses, depreciation, risk allowances, and a return on Council-contributed assets. This approach provides flexibility to adjust pricing in response to actual growth and cost movements, while safeguarding financial sustainability and equity for all CWMS customers.

## 6.6 Service Charge Impact

Using the 20-year CWMS pricing model developed in the 2024–25 year, CWMS service charge pricing models were prepared for three scenarios: current take-up, reduced take-up, and maximum take-up. In both the reduced take-up and maximum take-up scenarios, service charges experience reduced pricing pressure over the 10-year period. This occurs because, as the number of connections increases from new properties in Renmark West, the total service charge revenue also increases, allowing the cost of maintaining the network to be spread across a larger customer base.

The additional cost of servicing these new properties is relatively low, with operational costs representing only around 30% of the service charge. At this stage, no return on capital is being recovered, as the development costs associated with the new infrastructure have not yet been incorporated into the service charge.

Under the reduced take-up scenario, modelling shows that CWMS service charges increase by less than 5% in Year 11 (following completion of the augmentation facility). This outcome reflects the transfer of the remaining cost base from the augmentation charge facility into the core CWMS cost base. The maximum take-up model would have no impact on CWMS service charges in the 11<sup>th</sup> year as the entire cost base would have been developer contributed.

## 7.0 Risk Management

As with any capital works project of this scale, it is essential to identify, assess, and manage potential risks that could impact delivery, cost, stakeholder confidence, and long-term sustainability. This risk register has been developed to support the business case by providing a structured overview of the key hazards and risks associated with the project. It outlines the potential impacts and likelihood of each risk, the controls in place to mitigate them, and the alignment with council policy and legislative frameworks.

The risk register, provided in appendix 2, outlines critical hazards that may impact project delivery, financial sustainability, and stakeholder confidence. Risks included address governance, resourcing, stakeholder engagement, financial viability, infrastructure design, and environmental considerations. Each risk has been assessed for likelihood and mitigated through targeted controls, reducing residual risk to low or medium in most cases. The exception is the critical dependency that should the CWMS expansion not be pursued, the environmental and financial risks remain High.

Key Insights include:

**Governance & Confidence:** Risks around administration transparency and stakeholder trust are mitigated through active engagement and clear communication.

**Resourcing:** Internal capacity constraints addressed via external project management support.

**Stakeholder Relations:** Potential reputational impacts minimized through structured consultation and environmental due diligence.

**Financial Sustainability:** Debt funding, cost recovery, and land supply risks managed through robust business cases, augmentation charge reviews, and infrastructure agreements.

**Infrastructure Resilience:** Design risks (e.g., flooding, geotechnical issues) mitigated through resilience planning and site investigations.

**Strategic Environmental Risk:** Future development fragmentation avoided by progressing CWMS expansion; failure to proceed significantly increases long-term costs.

Broadly the risk management focus remains on financial controls, stakeholder engagement, and infrastructure resilience to ensure project success.

## 8.0 Project Delivery

### 8.1 Delivery Model

The proposed project delivery model for the Renmark West CWMS Expansion provides a structured, end-to-end framework to guide the project from its initial justification through to delivery, commissioning, and close-out. It ensures that every stage is supported by clear deliverables, strong governance, and well-timed decision points.

As the project progresses through initiation, detailed planning, procurement, construction, and commissioning, each phase includes defined outputs and approvals to maintain project control, manage risks early, and ensure alignment with Council expectations and community needs.

By applying this model in alignment with Council's Project Management Framework, the Renmark West CWMS Expansion would be delivered with transparency, discipline, and operational readiness, supporting a smooth transition into business-as-usual service delivery and ensuring long-term community benefit.

Due to the critical timing of this project, it is recommended to facilitate the procurement as a design and construct contract. This approach will achieve timing and cost efficiencies through bundling the design and construction phases; and has been successful for Council in previous large infrastructure projects whilst maintaining probity and transparency.

This process also ensures the constructor is a stakeholder through the design phase and is across the design before construction commences minimising the risk of delay and design rework during construction. Whilst this method does have risks associated with minimal planning details at time of tender, leading to potential for large variances in submitted costings- Council's established tender evaluation process and contract management practices is expected to provide certainty in cost control with potential for variances built into budget estimates.



**Table 10: Project Lifecycle**

| Phase – JUSTIFY                                                                                                                                                                         |                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Business Case</b>                                                                                                                                                                    |                                                                                                                                                                                               |
| <b>Deliverables:</b><br>Problem definition, strategic need, preliminary scope and options assessment, high-level estimate and funding models, risk register (initial), stakeholder map. | <b>DECISION POINT (Business Case Approval):</b><br>ELT endorsement, Audit & Risk Committee Support before Council endorsement to proceed with project.                                        |
| Phase – INITIATE                                                                                                                                                                        |                                                                                                                                                                                               |
| <b>Project Preparation</b>                                                                                                                                                              |                                                                                                                                                                                               |
| <b>Deliverables:</b><br>Project Brief finalised, procurement plan (design & construction model), risk & WHS plans, detailed design readiness.                                           | <b>DECISION POINT:</b><br>Brief approval (Sponsor); Procurement Package approval (PM)<br>Any material changes to scope or cost within the endorsed business case are reported back to Council |

### Phase – PLANNING

#### Procurement

**Deliverables:**

Tender docs, market engagement, evaluation report, recommendation, contract award

**DECISION POINT:**

Sponsor & CEO approval (per delegation) to award contracts.

#### Design Finalisation

**Deliverables:**

Detailed design, environmental and planning approvals, technical specifications, construction preparation

**DECISION POINT:**

Design approval (PM & Sponsor)

### Phase – DELIVER

#### Construction

**Deliverables:**

Mobilisation, construction progress reports, quality records, performance, variations/change control, stakeholder notifications.

**DECISION POINT (Practical Completion):**

Quality assurance, defects management, commissioning plan ready.

#### Commissioning & Handover

**Deliverables:**

Commissioning results, O&M manuals, asset data, as-constructed drawings, training, handover certificate, readiness review.

**DECISION POINT**

Operations acceptance; transition to business as usual

### Phase – CLOSE

#### Benefits Realisation & Close-Out

**Deliverables:**

Post-implementation review, financial close, lessons learned, asset capitalisation.

**DECISION POINT**

Sponsor sign-off; archive & governance completion.

## 8.2 Governance Structure

The Renmark West CWMS Expansion Project will be supported by a clearly defined operational governance structure that ensures strategic alignment, transparent decision-making, and disciplined project delivery. The below framework establishes roles and accountabilities across Council to provide effective oversight from concept through to commissioning and operational handover.

**Table 11: Governance Structure**

| Role                                                                        | Accountability                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Project Sponsor:</b><br>Director Infrastructure & Environmental Services | Strategic alignment, gain funding/ project endorsement from Elected Members, stage-gate approvals.<br><br>Decision Rights: change requests and variations over Project Manager's delegations, stage gate approvals.                                                                     |
| <b>Project Manager:</b><br>Manager Infrastructure Services (Project Lead)   | End-to-end delivery, scope/quality/schedule/cost; risk and stakeholder management, procurement lead, statutory approvals oversight, contract manager<br><br>Decision Rights: design deviations within tolerance, contractor variations within delegated limit, tactical risk responses. |
| <b>Delivery Support:</b><br>Project Officer; External Project Support       | Coordination support, program controls, procurement, reporting.                                                                                                                                                                                                                         |
| <b>Technical Assurance:</b><br>External Project Support & Asset Officer     | Design standards, technical reviews, commissioning assurance.                                                                                                                                                                                                                           |

|                                                                                                 |                                                                                                   |
|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Operations / Maintenance Representative:</b><br>Manager Operations                           | Operability input, O&M readiness, handover acceptance.                                            |
| <b>Finance:</b><br>Manager Financial Services                                                   | Budget tracking, cashflow management                                                              |
| <b>Regulatory:</b><br>Manager Development and Regulatory Services                               | Planning, Development and Environmental Health technical advice                                   |
| <b>Communications:</b><br>Manager Community Development and Communications & Engagement Officer | Preparing communications materials from information provided by Project Manager for stakeholders. |

### 8.3 Stakeholder Engagement Plan

The Renmark West CWMS Expansion Project would require a proactive, transparent, and collaborative stakeholder engagement approach that supports timely decision-making, strengthens community confidence, and enables the successful delivery of project outcomes. Engagement will be guided by principles of early involvement, clarity of communication, and respect for diverse stakeholder needs.

In the initiate phase of the project, a communications plan will need to be developed to identify and outline the key stakeholders, messages and methods that will be utilised during the project delivery.

It has been acknowledged that residents and landowners within and adjacent the expansion area will be the most impacted during the construction phase, the engagement with these stakeholders will focus on providing accurate, accessible, and timely information regarding project objectives, benefits, timeframes.

Other key stakeholders including relevant authorities, Elected Members and internal Council teams will be engaged through existing processes at appropriate phases of the project lifecycle to ensure their perspectives are understood and inform project planning, design, construction, and commissioning activities.

The project team would lead engagement with the River Murray and Mallee Aboriginal Corporation (RMMAC) as the Traditional Owners of the land. This relationship has been strengthened recently through other Council infrastructure projects such as the Lock 5 Bank Stabilisation and Renmark Rowing Dock where cultural heritage assessments and monitors have been a part of the design development and onsite during the construction phase.

The engagement process will use a mix of channels such as targeted stakeholder briefings and public information updates, to maintain strong relationships and ensure effective two-way communication where appropriate. Issues and risks raised by stakeholders will be systematically captured, assessed, and incorporated into project decision-making to support a socially and environmentally responsible outcome.

This approach aims to build trust, minimise disruption, ensure compliance with regulatory expectations, and enable smooth integration of the expanded CWMS infrastructure into the Renmark West community.

## 9.0 Conclusion

The Renmark West CWMS Expansion is a strategically critical project that aligns with Council's Growth Strategy and addresses both immediate and long-term infrastructure needs. This investigation confirms that the proposed expansion is technically feasible, financially sustainable, and environmentally responsible.

### **Strategic Growth Enablement:**

The expansion unlocks underdeveloped land within the Rural Neighbourhood Zone, enabling up to 534 new allotments. Without CWMS infrastructure, development in this area has been traditionally severely restricted by the Bookmark Creek Subzone, resulting in stalled growth, fragmented land use, and increased land-use conflicts.

### **Economic and Community Benefits:**

By facilitating orderly development, the project stimulates local employment, attracts new residents, and strengthens Renmark's regional role. The opportunity cost of inaction; lost economic activity and reduced housing supply; far outweighs the investment required.

### **Financial Sustainability:**

The preliminary estimate cost of \$3 million will be recovered through a structured augmentation charge separate to the annual service fees applied to allotments. The operational revenue forecasts demonstrate the annual CWMS Service charge applied to all properties connected to the network potentially resulting in reduced pricing pressure.

### **Environmental Compliance:**

The CWMS expansion mitigates groundwater contamination risks associated with onsite wastewater systems, ensuring compliance with environmental protection requirements and safeguarding the River Murray ecosystem.

### **Risk Management:**

The comprehensive risk assessment demonstrates that the identified risks are manageable through mitigation strategies such as infrastructure agreements, staged implementation, and proactive stakeholder engagement. The risk of not proceeding is significantly higher, potentially leading to costly retrofits and environmental harm.

In summary, proceeding with the Renmark West CWMS Expansion is essential to support sustainable growth, protect environmental assets, and deliver economic resilience for the Renmark Paringa community. The business case provides clear evidence that the benefits of this investment substantially outweigh the risks and costs, therefore should proceed to design and construction to meet the critical timeframes and address the emerging demand.

## Appendix 1 Strategic Logic Map

| Strategic Problem / Constraint                                                                               | Strategic Response (Project)                                                                                  | Direct Outputs                                                            | Outcomes Enabled                                                       | Strategic Benefits                                                        |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>Planning controls restrict onsite wastewater disposal in Renmark West due to groundwater sensitivity.</b> | Expansion of the CWMS into Renmark West.                                                                      | Reticulated wastewater servicing connected to central treatment capacity. | Residential subdivision can proceed in a compliant and planned manner. | Housing supply unlocked and Council Growth Strategy implemented.          |
| <b>Housing supply targets cannot be met due to lack of enabling wastewater infrastructure.</b>               | Delivery of enabling wastewater infrastructure aligned with land release sequencing within a growth strategy. | Serviced residential allotments become developable.                       | Timely release of residential land and improved housing availability.  | Population growth, workforce attraction and regional economic resilience. |
| <b>Risk of groundwater contamination from dispersed onsite wastewater systems.</b>                           | Centralised wastewater collection, treatment and reuse.                                                       | Wastewater treated to appropriate standards with reuse opportunities.     | Reduced contamination risk and improved water reuse outcomes.          | Protection of environmental assets and improved water security.           |
| <b>Existing wastewater treatment investment is under-utilised without network expansion.</b>                 | Extension of CWMS to leverage existing wastewater treatment capacity.                                         | Increased utilisation of existing wastewater infrastructure assets.       | Improved efficiency and sustainability of infrastructure investment.   | Better value for money and long-term financial sustainability.            |
| <b>Climate variability and floodplain conditions increase failure risk for onsite systems.</b>               | Provision of resilient, centrally managed wastewater infrastructure.                                          | Robust wastewater system suited to long-term operation.                   | Improved resilience during extreme weather events.                     | Reduced public health and environmental risk.                             |

## Appendix 2: Risk Register

| Risk                                                                       | Impact                                                                                                                                  | Likelihood before control | Mitigation/Control                                                                                                                                                                                                                                                                                                                                                                      | Likelihood after control |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <b>HAZARD: Organisational Change: New Delivery Structure for Council</b>   |                                                                                                                                         |                           |                                                                                                                                                                                                                                                                                                                                                                                         |                          |
| <b>Lack of confidence in administration</b>                                | Damaged stakeholder relationships (internal and external)                                                                               | Medium                    | <ul style="list-style-type: none"> <li>Active engagement and transparency</li> <li>Ensure the project isn't reliant on grant funds to support construction</li> <li>Seek grant funds to reduce the long term cost recovery risk to Council and accelerate delivery.</li> </ul>                                                                                                          | Low                      |
| <b>HAZARD: RESOURCING SHORTAGES</b>                                        |                                                                                                                                         |                           |                                                                                                                                                                                                                                                                                                                                                                                         |                          |
| <b>Limited internal staff capacity redirected</b>                          | Project delays or reduced quality                                                                                                       | High                      | <ul style="list-style-type: none"> <li>External project management resources are available to support the design and construction phases.</li> </ul>                                                                                                                                                                                                                                    | Low                      |
| <b>HAZARD: STAKEHOLDERS</b>                                                |                                                                                                                                         |                           |                                                                                                                                                                                                                                                                                                                                                                                         |                          |
| <b>Negative reputation</b>                                                 | Project delays                                                                                                                          | Medium                    | <ul style="list-style-type: none"> <li>Community Consultation through Growth Strategy Completed</li> <li>Active Engagement through design and construction</li> <li>Demonstrate environmental due diligence through engagement with relevant authorities and affected stakeholders</li> <li>Broader community advice on what it means for existing landowners.</li> </ul>               | Low                      |
| <b>HAZARD: FINANCIAL</b>                                                   |                                                                                                                                         |                           |                                                                                                                                                                                                                                                                                                                                                                                         |                          |
| <b>Debt funding is not supported</b>                                       | No access to funds to deliver construction activities                                                                                   | Medium                    | <ul style="list-style-type: none"> <li>Business case outlines due diligence &amp; cost recovery methodology.</li> </ul>                                                                                                                                                                                                                                                                 | Low                      |
| <b>Capital investment is not recovered through the augmentation charge</b> | Lot sizes are greater than forecasted resulting in less charges recovered                                                               | Medium                    | <ul style="list-style-type: none"> <li>Infrastructure Agreements (IA) with developers at land division stage</li> <li>The augmentation charge will be reviewed annually to ensure costs are appropriately covered over the 10 year term and gives assurance to developers for pricing stability.</li> </ul>                                                                             | Low                      |
|                                                                            | Expected yield over given period is not achieved (i.e 200 lots instead of 500 over 10 year period)                                      | High                      | <ul style="list-style-type: none"> <li>Infrastructure Agreements (IA) with developers at land division stage</li> <li>The augmentation charge will be reviewed annually to ensure costs are appropriately covered over the 10 year term and gives assurance to developers for pricing stability.</li> <li>Continue to seek grant funds to accelerate delivery and lot yield.</li> </ul> | Medium                   |
| <b>Demand for land supply is reduced</b>                                   | Developers do not proceed with land divisions due to low market demand therefore Council does not recover full amount of the investment | High                      | <ul style="list-style-type: none"> <li>Modelling on impact to annual CWMS Service charge has been completed</li> <li>Should only 50% of the allotments come available during the forecasted timeframe, this will still have a positive impact on the annual service charge</li> </ul>                                                                                                   | Medium                   |

|                                                                       |                                                                                                                                                                                                                                                                               |               |                                                                                                                                                                                                                                                                      |                                                                                |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
|                                                                       |                                                                                                                                                                                                                                                                               |               | <ul style="list-style-type: none"> <li>The augmentation charge will be reviewed annually to ensure costs are appropriately covered over the 10 year term and gives assurance to developers for pricing stability.</li> </ul>                                         |                                                                                |
| <b>HAZARD: DESIGN &amp; INFRASTRUCTURE</b>                            |                                                                                                                                                                                                                                                                               |               |                                                                                                                                                                                                                                                                      |                                                                                |
| <b>Asset flooding</b>                                                 | Infrastructure failure                                                                                                                                                                                                                                                        | <b>Low</b>    | <ul style="list-style-type: none"> <li>Design resilience into infrastructure</li> </ul>                                                                                                                                                                              | <b>Low</b>                                                                     |
| <b>Geotechnical issues</b>                                            | Increased design and construction costs associated with pump station construction due to unfavourable conditions                                                                                                                                                              | <b>Medium</b> | <ul style="list-style-type: none"> <li>Conduct preliminary site investigations to ensure due diligence is completed</li> <li>Construction methodology to accommodate dewatering during pump station construction has been accounted for in cost estimates</li> </ul> | <b>Low</b>                                                                     |
| <b>HAZARD: ENVIRONMENTAL &amp; FINANCIAL</b>                          |                                                                                                                                                                                                                                                                               |               |                                                                                                                                                                                                                                                                      |                                                                                |
| <b>Not pursuing the expansion creates future environmental issues</b> | Development continues in fragmented manner which reduces the homes built due to increased onsite wastewater disposal costs and create future environmental risks resulting in Council having to retrofit the CWMS Infrastructure in the future at a higher construction cost. | <b>High</b>   | <ul style="list-style-type: none"> <li>The mitigation of this risk is dependent on realising the CWMS Expansion outcomes</li> </ul>                                                                                                                                  | If expansion proceeds:<br><b>Low</b><br><br>If doesn't proceed:<br><b>High</b> |

*Love where you live*

