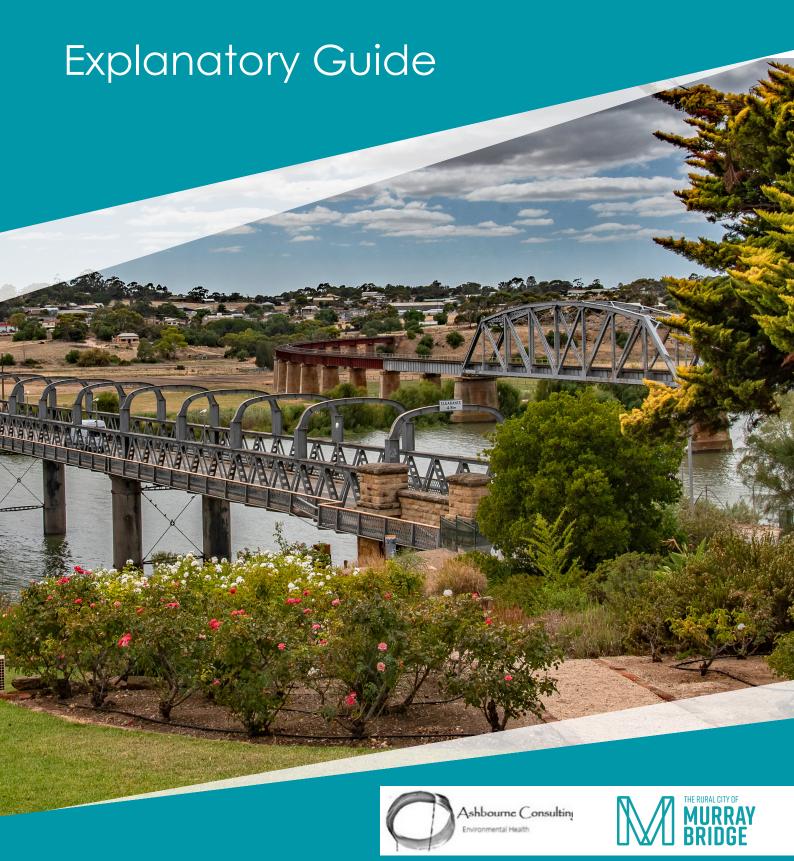
# **Eastside Onsite Wastewater Management Systems**





## Introduction

## **Wastewater in Murray Bridge**

The western city-side of Murray Bridge has been serviced with sewerage infrastructure since 1970. Significant population growth prompted a decision by the state government in 2010, to identify a new long-term location for a wastewater treatment plant to service Murray Bridge into the future.

In 2011, the Minister for Water (the Hon. Paul Caica) provided advice to the Rural City of Murray Bridge regarding services to existing and future development on the east side of Murray Bridge.

"The provision of wastewater services to existing or future development in the east of Murray Bridge can be assessed on a commercial basis at any stage but has not been factored into the existing project. This can be done irrespective of the location of the Plant...."

In 2021, a new wastewater treatment plant was completed to service the city of Murray Bridge, with additional reserve capacity to cater for planned future growth. However, the \$52 million development did not include any extension of sewerage services to Murray Bridge East.

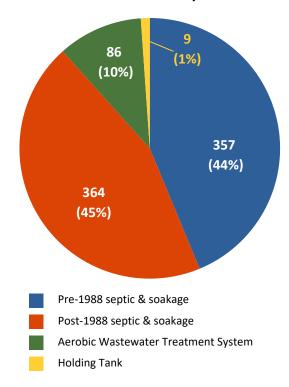
## Wastewater at Murray Bridge East

Murray Bridge East does not have access to any SA Water sewerage services and as such, all properties must accommodate on-site wastewater systems within their property boundaries.

The majority of on-site wastewater systems at Murray Bridge East consist of a septic tank for primary treatment and a sub-surface area for effluent disposal.

Aerobic Wastewater Treatment Systems (AWTS) are utilised for a small percentage of properties at Murray Bridge East, and even fewer holding tanks are in operation.

# Breakdown of Murray Bridge East On-site Wastewater Systems





## **Legislative Context**

The Council has responsibilities under the *South Australian Public Health Act 2011* (the Act), the *South Australian Public Health (Wastewater) Regulations 2013* (the Regulations), and the *On-site Wastewater Systems Code 2013* (the Code).

The Act prescribes councils in South Australia as enforcement authorities with obligations to administer the Act, Regulations and Standards to protect public health. The Act and Regulations provide for enforcement actions to be taken where considered necessary, including the issue of Notices, and in more serious cases, authority to initiate prosecutorial action to ensure compliance with Standards.

### **Wastewater Standards**

Standards for on-site wastewater systems have evolved significantly since the early 1970's.

Both minimum septic tank capacity and minimum soakage areas have been considerably increased.

#### Standard for The On-Site Construction, Pre-1988 Installation and Operation of Septic Tank Systems 1988 **Wastewater Systems Standards Code 2013** • Minimum septic tank Minimum septic tank Minimum septic tank capacity - 1,620L capacity - 3,000L capacity - 3,000L. • Tanks constructed in-situ Minimum soakage area Sizing of soakage trench and irrigation area (for AWTS) are with bricks or pre-cast increased to 45m (L) cylindrical concrete tanks x 1.2m (W) x 0.4m (D) site and soil specific. Soakage trench - 9m (L) x • Minimum irrigation area 1.2m (W) x 0.4m (D) (AWTS) - 200m2 + social/recreational area equal • Soakage well - 1.2m to 50% of irrigation area diameter and approx. 2m (D)



# **Project Overview**

## Why did we do the Study?

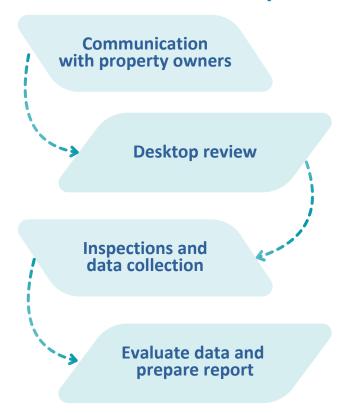
The primary motivation for the Eastside Onsite Wastewater Systems Study (the Study) was due to the identification of an increasing number of failing wastewater systems over many years and limitations of allotment size (reserve area) for upgrading systems to current standards, together with the associated risks to public health from direct human contact with untreated effluent.

Uncertainties regarding the potential for contamination of ground water and the river, particularly given the shallow water table beneath parts of the Eastside area and the proximity of the SA Water's Pump Station which draws water for Adelaide's water supply, directly opposite the Riverglades wetland were also important considerations.

The Study's comprehensive inspection and assessment process of current on-site wastewater systems on approximately 900 properties on Eastside provides Council with valuable baseline data to inform and guide decision making for future management of wastewater in this growing area of Murray Bridge.



# How did we do the study?



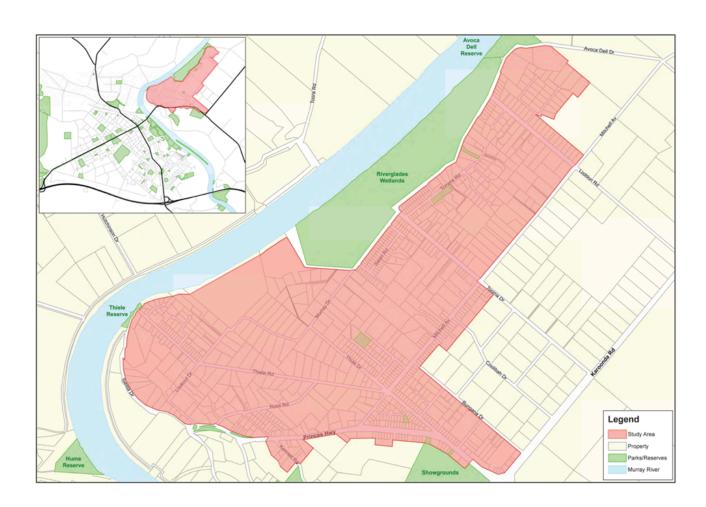


# **Study Area**

There were 914 allotments in the assessment area, including 812 dwellings.

Utilising the LGA SA Community Wastewater Management System Design Criteria

"Rate of occupancy" of 2.6 persons per residential dwelling it is estimated that the population of the study area is approximately 2,111.





# **Findings**

Pre-1988 septic & soakage

318 (89%) of the 357 considered to be failing or in poor condition.

159 (50%) of poor or failing systems on allotments considered to have insufficient area available to enable an upgrade.

This represents 19% of the total number of on-site wastewater systems in study area.

Post-1988 septic & soakage

Only 12 (3%) of 364 considered to be failing or in poor condition.

8 of the 12 systems failing or in poor condition considered to have insufficient area available to upgrade.

This indicates that while these systems are currently in working order, allotments with insufficient area will pose challenges in the future.

Aerobic Wastewater Treatment Systems

10 of the 86 irrigation systems found to be incomplete or in poor condition.

Estimated that 75-80% of AWTS are being routinely serviced.

## Conclusion

The inspection and assessment of 826 on-site wastewater systems and the associated data collected provides a valuable snapshot of the condition of systems in the area and is an important first step to examining options for the future management of wastewater in this growing area of Murray Bridge.

There are very limited options for properties with poor or failing systems that have no reserve area to upgrade. In many instances, regular pump-out of septic tanks and soakage trenches by licenced contractor(s) may be the only short-term solution to prevent overflow of effluent and reduce any potential risk to public health.

Given the large number of poor and failing systems and the physical limitation of many allotments to upgrade, a regulatory approach including the issue of Notices requiring compliance is problematic and in many cases unlikely to achieve sustainable solutions.

Technical advice from both SA Water and the LGA's CWMS Program are considered key in exploring options for the future management of wastewater on Murray Bridge East.

Opportunities for future public consultation and feedback will be communicated as the project progresses.

This document is a summary based on the report provided by Ashbourne Consulting.

A copy of the full report can be found on Council's website.

