

Tea Tree Gully Sustainable Sewers – Transition Plan

Version: 1.0

Date: 30/04/2021

Status: Approved

© 2021 SA Water Corporation. All rights reserved. This document may contain confidential information of SA Water Corporation. Disclosure or dissemination to unauthorised individuals is strictly prohibited. Uncontrolled when printed or downloaded.



**Government of
South Australia**

Document Controls

Version History

Version	Date	Author	Comments
0.1	29/03/21	Julie Arbon	First draft.
0.2	09/04/21	Matthew Bonnett	Draft for review
0.3	13/04/21	Matthew Bonnett	Draft submitted to Board for noting
0.4	21/04/21	Matthew Bonnett	Draft with Executive summary
1.0	29/04/21	Matthew Bonnett	Board approval for release of Plan

Contents

1	Introduction.....	6
1.1	Purpose	8
1.2	Glossary	8
1.3	References	9
2	Stakeholder Engagement.....	10
2.1	Collaboration with Council.....	10
2.2	Customer Engagement.....	10
3	Budget.....	12
3.1	Council Contribution	12
4	Scope of Work	13
4.1	Technologies and approaches to service customers with sewer.....	13
4.1.1	Mains Infrastructure	13
4.1.2	On-property plumbing and associated works.....	14
4.2	Out of Scope	16
5	Pilot Projects.....	17
5.1	Glenere Drive	17
5.2	Dawson Drive	18
6	Catchment Prioritisation.....	20
6.1	Prioritisation Criteria	20
7	Delivery Stages	21
7.1	Stage 1.....	22
7.2	Stage 2.....	23
7.3	Stage 3.....	23
8	Customer Transition Process	25
Appendix A	- Map of Tea Tree Gully CWMS Catchments.....	27

List of figures

Figure 1: Map of the City of Tea Tree Gully CWMS catchment area

Figure 2: On-property gravity sewer

Figure 3: On-property pressure sewer

Figure 4: Glenere Drive, Modbury pilot site properties

Figure 5: Dawson Drive, Modbury pilot site properties

Figure 6: Map of City of Tea Tree Gully CWMS catchments

List of tables

Table 1: Pilot sites

Table 2: Delivery stage timing

Table 3: Stage 1 catchments for transition

Table 4: Stage 2 catchments for transition

Table 5: Stage 3 catchments for transition

Executive Summary

The Tea Tree Gully Sustainable Sewers Program's aim is to transition all properties connected to the City of Tea Tree Gully (Council) Community Wastewater Management System (CWMS) to a modern sewer system that delivers nationally accepted levels of service for its customers. Customers being transferred to SA Water can expect a significant decrease in their sewer rates and will also experience a significantly higher level of network performance, with regards to blockages, overflows and other environmental impacts, as well as a range of other standard customer benefits once they transfer.

The CWMS network consists of approximately 110 kilometres of pipe network and services more than 12,000 people in around 4,700 properties in the City of Tea Tree Gully. The network is divided into 73 catchments, ranging in size from 1 property to over 700 properties.

Many sections of the network are now reaching the end of their useful life and the CWMS has experienced poor performance in recent years. As a result, the State Government made an initial \$65 million commitment during the 2020-2024 regulatory period to commence upgrading these sewerage services for the community. Council have advised that they will not make any direct financial contribution to the program, but that they will provide significant in-kind contributions.

The Sustainable Sewers Program and its approach have been developed in response to direction provided by the State Government and only apply to addressing the unique situation presented by the City of Tea Tree Gully CWMS.

Engagement

SA Water has worked with Council and used customer feedback to guide the planning and prioritisation process for the staged approach for transitioning customers to the mains sewer network. This information has informed how this program can minimise impacts and increase the benefits for the community. SA Water and Council have communicated regularly, including collaborating in a number of meetings to share information, plan community engagement and discuss the processes. Of critical importance has been Council sharing selected data on the CWMS assets and their performance, to support SA Water's planning.

CWMS customers have been positive about the transition to SA Water sewer and pleased that we are working with them through the process and ensuring continuing communication. Property owners have shown a strong interest in the overall project during property visits and have also shown a willingness to connect to SA Water, while developing an understanding on the complexities of on-property work.

Technology

There are several possible mains infrastructure and on-property technical options available to convert CTTG CWMS customers to SA Water sewer. Each option is dependent on several key criteria to ensure that the acceptable levels of service are achieved and maintained for each property. As such, no single option is applicable to all properties and there may be situations where different properties in the same street are either served by gravity sewer or pressure sewer, depending on the topography of the area.

Staging

CWMS Customers will be transitioned in stages, with prioritisation based on a range of criteria, including condition assessment and community feedback. Council will retain ownership of the CWMS and customers until each transition stage is completed and customers are transferred to SA Water. A transition process will be shared with CWMS customers to show how they will become SA Water sewer customers.

SA Water agreed with Council to undertake a pilot project at two sites in Modbury, involving around 60 properties, as the catchments have a high potential for subdivision and development. These pilots have provided insights and knowledge on the complexities of

converting customers from a CWMS to SA Water sewer network, as well as assisting with determining the associated costs.

To determine the timing of staging for transitioning the remaining properties and associated catchment groupings from the CWMS to the SA Water sewer network, a prioritisation methodology was developed with key criteria and associated weightings. As a result of the prioritisation and grouping process, three transition stages were identified:

- **Stage 1** includes approximately 400 properties and comprises groups of high priority catchments with significant performance issues in Modbury North, St Agnes and Banksia Park, aligned with Council priorities and feedback from the community. The aim is to start construction in late 2021 and complete customer connections by late 2022.
- **Stage 2** includes around 1,600 properties in catchments within the suburbs of St Agnes, Banksia Park, Fairview Park, Tea Tree Gully and Vista and Surrey Downs. Construction planned to start in mid-2022 and be completed in mid-2024.
- **Stage 3** comprises over 2,000 properties in the remaining catchments of the CWMS, in the suburbs of Fairview Park, Banksia Park, Tea Tree Gully, Redwood Park, Ridgehaven, Vista, Hope Valley, Highbury and Modbury. Construction planned to start in 2024 and be completed within SA Water's 2024-28 regulatory period.

1 Introduction

The City of Tea Tree Gully (Council) Community Wastewater Management System (CWMS) network consists of approximately 110 kilometres of pipe network, and 11,000 structures (inspection points and maintenance shafts). The system (as shown in Figure 1) comprises 73 catchments, connected to the SA Water sewer network through the same number of connection points. A large portion of the network is located at the rear of properties that are connected to the system. Council manages the septic tank cleaning program (approximately once every 4 years) for its customers. The CWMS services approximately 4,700 CWMS properties and more than 12,000 people in the City of Tea Tree Gully.

The Council CWMS was largely constructed in the 1960's and 70's and has experienced poor performance in recent years, with many sections now reaching the end of their useful life. ESCOSA has noted that the performance has been "poor due to under investment over time" and the lack of investment "has reduced service quality and reliability, and potentially increased the risk to public health and safety".

In May 2020, the State Government, pursuant to section 6 of the Public Corporations Act 1993, and sections 6 and 7(2)(f) of the South Australian Water Corporations Act 1994, instructed SA Water to begin discussions with Council to transfer existing CWMS customers onto a SA Water owned and operated wastewater network. A variation to the instruction incorporates reference to the unique nature of carrying out on-property works as part of this program.

The Government made an initial \$65 million commitment during the 2020-2024 regulatory period to commence upgrading these sewerage services.

A high-level valuation of the CWMS was undertaken, and this analysis indicated that the CWMS has no commercial value to SA Water. In response to Council's request for a high-level commercial proposal for the transition of CWMS customers and any associated assets, SA Water advised that, given the significantly negative Net Present Value of the system, it will not offer any reimbursement to Council as part of the program, regardless of whether any assets are transferred.

Council has also been asked to outline the contributions that they propose to make to the program. At the request of Council, SA Water will consider the possible reuse of CWMS assets, where they meet required standards.

Customers being transferred to SA Water can expect a significant decrease in their sewer rates, with Council CWMS rates currently set at \$725 per annum and ESCOSA recommending that significant increases are required to properly fund the existing CWMS. An average property in the area would be charged around half this in SA Water sewerage rates.

Customers will also experience a significantly higher level of network performance, with regards to blockages, overflows and other environmental impacts, while not having the inconvenience of septic tank cleaning every 4 years, as well as a range of other standard customer benefits once they transfer.

This Transition Plan and the approach outlined within has been developed in response to the direction provided by the State Government and only applies to addressing the unique situation presented by the City of Tea Tree Gully CWMS.

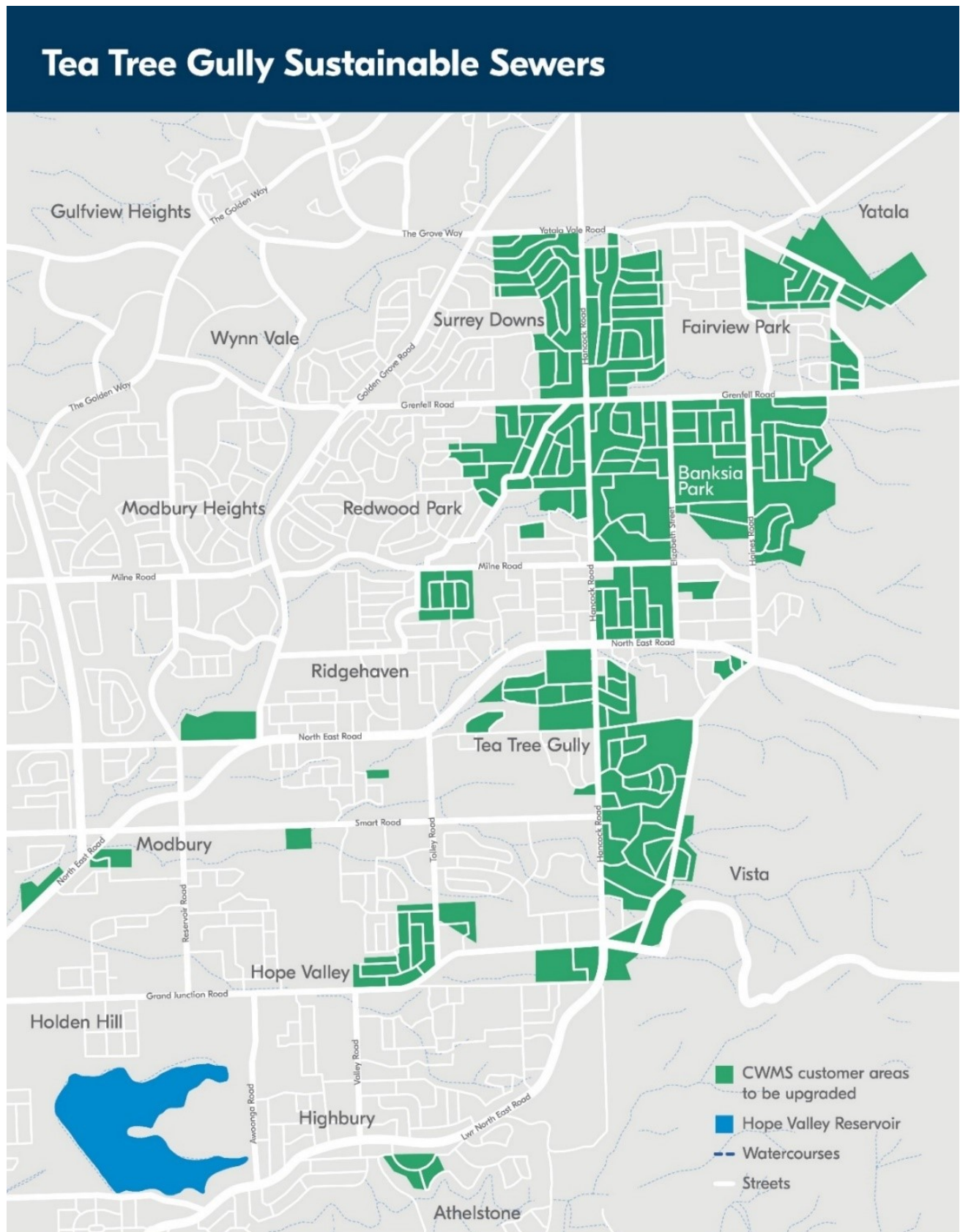


Figure 1: Map of the City of Tea Tree Gully CWMS areas

1.1 Purpose

The purpose of this plan is to provide the Minister for Environment and Water, the SAW Board and Executive, the City of Tea Tree Gully and CWMS Customers with our plan to transition customers to the SA Water sewer network.

1.2 Glossary

The following glossary items are used in this document:

Term	Description
Catchment	An area of wastewater network that drains into a single point that connects to SA Water's network
Council or CTTG	City of Tea Tree Gully
Concept design	An early phase of the design process, in which the broad outlines of function and form of the infrastructure are articulated
CWMS	Community Wastewater Management System
Dilapidation survey	Outlines the current condition of a structure and any existing structural damage including areas which may be prone to damage
ESCOSA	The Essential Services Commission of South Australia is the independent economic regulator established by the State Government of South Australia, to regulate prescribed essential utility services supplied by the electricity, gas, water, ports and rail industries
Gravity main/pipe	A conduit utilising the energy resulting from a difference in elevation to move water
Interception point	The point at which new plumbing connects into existing household plumbing in order to remove all of the household wastewater
Inspection Point	A shaft, typically raised to surface that allows access to the sewer drains
Net Present Value	A method used to determine the current value of all future cash flows generated by a project, including the initial capital investment
On-property works	Plumbing and associated construction and reinstatement works that occur on privately owned properties
Pressure sewer	A sewer system that utilises a grinder pump to transport wastewater through small diameter pipes to a collection and treatment system
Regulatory period	The four-year period during which ESCOSA has determined the total revenue that SA Water may recover
SA Water	South Australian Water Corporation
TTG	Tea Tree Gully

1.3 References

The following table identifies the documents and/or articles that are referenced in this document:

Title/URL	Date
CTTG CWMS Asset Management Plan 2020 https://www.teatreegully.sa.gov.au/files/assets/public/documents/corp_documents/plans/cwms_asset_management_plan_2020-2023_final.pdf	2020
Minor and Intermediate Retailers Regulatory Performance Report 2018-19. https://www.escosa.sa.gov.au/news/water-news/jul20-news-2020-w-rpr-2019	July 2020
SA Water Regulatory Determination 2020, Final Determination ESCOSA - SA Water regulatory determination 2020	June 2020
SA Water WaterTalks https://watertalks.sawater.com.au/tea-tree-gully-cwms	

2 Stakeholder Engagement

2.1 Collaboration with Council

Discussions with Council had taken place prior to the Ministerial direction in May 2020, regarding the potential transition of CWMS catchments to SA Water, and collaboration has been regular and more focussed since this time.

A program steering committee was formed with representatives from SA Water and Council, including the SA Water Chief Executive, General Manager of Customer & Commercial, Senior Manager TTG Sustainable Sewers, and Council Chief Executive and Director Assets & Environment, to guide and inform the overall transition program. This committee has met bi-monthly to discuss program issues and progress.

SA Water and Council staff have communicated regularly, including collaborating in a number of meetings to share information, plan community engagement and discuss the processes. Of critical importance has been the Council sharing selected data on the CWMS assets and their performance, to support SA Water's planning. Council has asked that data shared in this way be bound by a confidentiality agreement, which SA Water signed up to.

Elected Members of Council have been provided regular reports at Council meetings, with SA Water contributing updates and other information to these reports. Elected members have also received briefings, been invited to community sessions, and offered targeted meetings with SA Water staff.

2.2 Customer Engagement

SA Water's engagement with current CWMS customers began in September 2020 with a letter sent to all 4,700+ residential and business properties, inviting them to meet and obtain further information.

Our online engagement site, WaterTalks, provided customers with a question forum and a customer survey. These activities elicited over 200 phone calls and emails from CWMS customers seeking further information. Our WaterTalks site (<https://watertalks.sawater.com.au/tea-tree-gully-cwms>) has also had 2,700 visitors, 20 feedback surveys completed, and 54 questions asked on the forum. At the end of January 2021, the first 'e-newsletter' community update was made available on Water Talks website, sent out to CWMS customers, and distributed via Council channels.

With the support of Council, three in-person community drop-in sessions were conducted at the Council Civic Centre, from mid-September through to early October 2020. These were supplemented by five online sessions, to support those who were unable to attend in person and account for COVID-19 impacts. Around 70 customers attended the community drop-in sessions, with some positive participation despite restrictions being in place due to the pandemic. Feedback received during the consultation period focused on potential impacts to properties, costs to connect and timing of works.

Property visits and face-to-face discussions were held in mid-October 2020 and in February/March 2021, with around 100 property owners and residents in the pilot sites at Glenere Drive and Dawson Drive, Modbury. Further targeted meetings will be held with local communities, in order to focus on the impacts of transitioning specific catchments.

Members of the project team have also met several times with a residents' action group and other interested members of the community, to gain a better understanding of the sewerage history of the area and talk about development concerns, on-property impacts, and timeframes for the transition. This included a tour around perceived problem sites in the area in February 2021, with a number of the streets visited rated as high priority for transition.

Community feedback

Overall, CWMS customers have been positive about the transition to SA Water sewer and pleased that we are working with them through the process and maintaining ongoing communication.

Property owners have shown a strong interest in the overall project during on-property inspections. They have also shown a willingness to connect to our sewer network and have developed an understanding on the complexities of on-property work based on face-to-face discussions.

Important themes from our engagement activities included:

- The future of customer septic tanks, impacts on the timing of home improvement projects and questions from developers of new residential housing.
- A strong interest in property specific issues, including the potential for on-property disruption.
- How costs associated with connecting to our sewer network will be covered.
- Our commitment and plan to transition customers to the network in a timely manner.
- CWMS customers have been surprised at the potential cost savings when comparing CWMS rates to SA Water sewer rates.

We are continuing to work with Council and using customer feedback to guide the planning and prioritisation process for the staged approach for transitioning customers to our sewer network. This information helps us to understand how we can minimise the impact and increase the benefits of this program for the community.

3 Budget

During the current regulatory period from July 2020 to June 2024, SA Water will have up to \$64.14 million of funding available to construct new sewerage assets, together with associated operating costs not exceeding \$963,000.

The capital expenditure plan over the next four years is shown below. This expenditure forecast assumes the continuation of funding into the next regulatory period.

Capital Expenditure:

2020-21	2021-22	2022-23	2023-24	Total
\$630,000	\$18,150,000	\$22,680,000	\$22,680,000	\$64,140,000

Capital expenditure covers the following:

- New sewer mains
- Augmentation of existing network
- On-property works to connect house plumbing to the inspection point
- Reinstatement works

3.1 Council Contribution

In keeping with other programs to transfer council systems to State Government operation, it is expected that Council will make a significant contribution to the program. A financial contribution should be made without Council passing additional costs directly on to CWMS customers, as the government expectation is that individual CWMS households should not be out of pocket as a consequence of the service upgrades and transition to SA Water's sewerage network.

Council have advised that they will not provide any direct financial contribution to the SA Water Sustainable Sewers Program. They have indicated that they have an existing fund (loan scheme for customers) to support on-property works, but this would still ultimately mean that CWMS customers are incurring costs during the transfer.

Council have indicated that they will provide significant in-kind contributions to the program. They have taken steps to address current hot spots in their network, to improve services to certain areas prior to any customer transition. They will also consider aligning their septic pumping program so as to pump out septic tanks in preparation for decommissioning in order to facilitate this process. This can also extend to other value-adds by coordinating other Council programs, such as road re-surfacing, footpath construction, and street tree planting, to mitigate the construction impacts of the Sustainable Sewers program and improve the long-term outcomes for the community. In addition, given the impending redundancy of the CWMS assets, Council can be expected to write down a significant amount of asset value.

Council has indicated that they will continue to provide staff resources to support transition of customers throughout the program.

Council have asked that some CWMS assets be considered for reuse by SA Water, in particular gravity pipes in the Jasper, Hancock, and Barracks catchments. However, insufficient data exists to confirm that any existing CWMS assets have been constructed to sewer network standard and with an appropriate alignment to make them viable for reuse. As a result, the program is progressing with the assumption that all CWMS assets will become redundant once customers are transitioned.

Decommissioning of redundant CWMS assets, such as common effluent pipelines, remains the responsibility of the City of Tea Tree Gully.

4 Scope of Work

Customers from the CWMS will be transitioned in stages, with prioritisation to be based on a range of criteria, including condition assessment and community feedback. SA Water is project managing the transition of the CTTG CWMS to SA Water through the installation of sewer network infrastructure, with customers transferring after infrastructure for each stage of the upgrade is completed. Council will retain ownership of the CWMS and customers until each transition stage is completed and customers are transferred to SA Water.

To achieve appropriate levels of service, it is essential that all new infrastructure is installed in accordance with the appropriate engineering standards and that, subsequently, legislation compliance is achieved.

SA Water's engineering standards (including Technical Standards, Technical Guidelines, and standard drawings) have been adopted and developed to assist in the design, development, construction, modification, maintenance, and management of more than \$6 billion worth of infrastructure.

The CTTG CWMS is not compliant with SA Water's engineering standards and as such, is unlikely to achieve the state-wide level of service measures relating to wastewater pipe network infrastructure, including:

- CTTG CWMS main choke rate
- Total wastewater overflows

The Tea Tree Gully Sustainable Sewers Program aim is to transition all properties connected to the CTTG CWMS to a modern sewer system that delivers nationally accepted levels of service for its customers.

Connecting CWMS customers to the SA Water network will require:

- Construction of new sewer mains, generally in the roads, but infrequently in easements;
- New connection pipes from the sewer mains to each property with an inspection point (IP) at the boundary (roadside or easement);
- New on-property pipework, with an IP at the property plumbing interception point (usually the inlet to the septic tank), to the boundary IP;
- Decommissioning the septic tank; and
- Re-instating any property assets disturbed in the installation of the connection works.

4.1 Technologies and approaches to service customers with sewer

There are several possible infrastructure and on-property technical options available to convert CTTG CWMS customers to SA Water sewer.

Each option is dependent on a number of key criteria to ensure that the acceptable levels of service are achieved and maintained for each property within the catchment. As such, there is no single option that is applicable to all properties included in the Tea Tree Gully Sustainable Sewers Program.

Each stage of the Tea Tree Gully Sustainable Sewer Program will undertake an individual assessment of the infrastructure and on-property options to determine the most appropriate solution applicable to the specific catchment conditions.

4.1.1 Mains Infrastructure

The possible infrastructure options identified include:

- Gravity sewer main in road

- Gravity sewer main in existing CWMS easement
- Gravity sewer main in new easement
- Pressure sewer mains in road
- Pressure sewer main in existing CWMS easement
- Pressure sewer main in new easement.

An initial review of the possible technical options identified that the adoption of a vacuum sewer was considered not suitable for the transition and therefore the vacuum options were not included in the assessment. Locating sewer mains in the roads is expected to be the preferred solution in most cases.

4.1.2 On-property plumbing and associated works

The work on private properties represents a significant component of the program. On-property works are normally the responsibility on the property owner, but the State Government has committed to ensuring existing CWMS customers will not directly pay costs associated with upgrading their wastewater service.

On-property works are designed and constructed to the requirements of the Office of the Technical Regulator (OTR) and in compliance with Plumbing code AS 3500.2-2018. The OTR plays a role in ensuring that new plumbing meets all relevant plumbing standards.

An Inspection Point would be constructed where the new pipework intercepts the household plumbing. The location of an inspection point provides an important marker and boundary between SAW wastewater networks and customer services. All infrastructure downstream of this point would be owned and maintained by SA Water.

As identified through site audits for the pilot study catchments, the most frequent challenges anticipated with on-property options include narrow access along the side of the house to the boundary line, access beneath carports, through gardens, past services, through pavers, concrete footpaths, past trees, pools, gates, animal enclosures, storage items and a variety of compliant and non-compliant structures.

Technical Options

The possible on-property technical options identified include:

- Gravity pipe from the property's plumbing interception point to the boundary IP (either in the road or an easement)

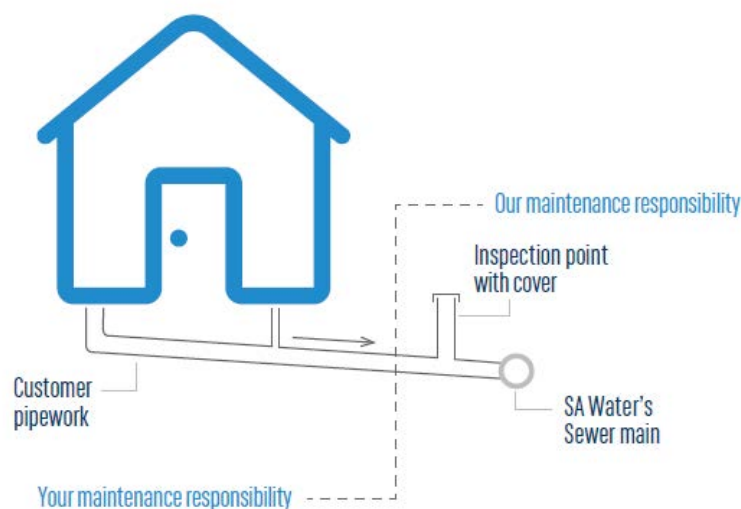


Figure 2: On-property gravity sewer

- Pressure pipe from a new pump sump (adjacent to the septic tank) to the sewer main (either gravity or pressure in the road or easement)

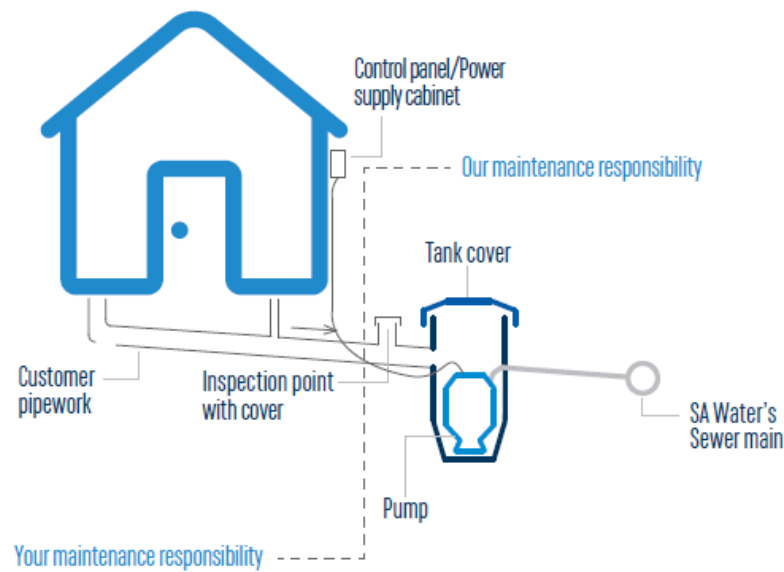


Figure 3: On-property pressure sewer

On-property Works

There may be situations where different properties in the same street are either served by gravity sewer or pressure sewer, depending on the topography of the area.

On-property works would typically include (but not be limited to) the following:

- Undertake on-property infrastructure assessment
 - o Location & depth of the septic tank, plumbing and other services
 - o Identification of barriers to new plumbing installation
 - o Identification of reinstatement requirements
 - o Photos of the current condition of the property
- Develop individual property plans
 - o Plumbing alignment
 - o Connection point to existing plumbing
 - o Reinstatement plan
 - o Septic tank decommissioning plan
- Customer Engagement on the property plan
 - o Input to plan
 - o Likely timing of sewer main construction and on-property works
 - o Access arrangements
 - o Property owner acknowledgement of plan
 - o Asset ownership and maintenance
 - o Rights and responsibilities for new plumbing
- Construction
 - o Following completion of sewer main and connections to property boundary
 - o On-property works as per property plan
 - o Cross over to new system
- Property owner acknowledgement of on-property works and reinstatement
 - o Statement of on-property and reinstatement works to be reviewed and acknowledged by the property owner

4.2 Out of Scope

The following are not part of the TTG Sustainable Sewers Program:

- Properties not connected to the CWMS e.g. Properties on soakage trenches, etc
- Reinstatement works that improve a property
- Decommissioning of CWMS assets

5 Pilot Projects

SA Water agreed with the Council to undertake a pilot project at two sites, one at Glenere Drive Modbury (18 properties) and the other at Dawson Drive Modbury (45 properties).

The two catchment areas are located within the Modbury Precinct and were highlighted as having a high potential for subdivision and development.

The opportunity to do these pilots has provided insights and knowledge on the complexities of converting from a CWMS to SA Water sewer network and the transition of customers. The pilot sites also assist with determining the costs of conversion from CWMS to SA Water sewer.

Table 1: Pilot sites

Program #	Title	Description	Number of Customers
Pilot Stage	Glenere Drive	Lay new gravity sewer main in street and connect properties to front of dwelling. Council catchments: • 2 Glenere	18
	Dawson Drive	Lay new gravity sewer main in street and connect properties to front of dwelling. Council catchments: • 5-7 Dawson • Quintal	45
Subtotal Pilot			63

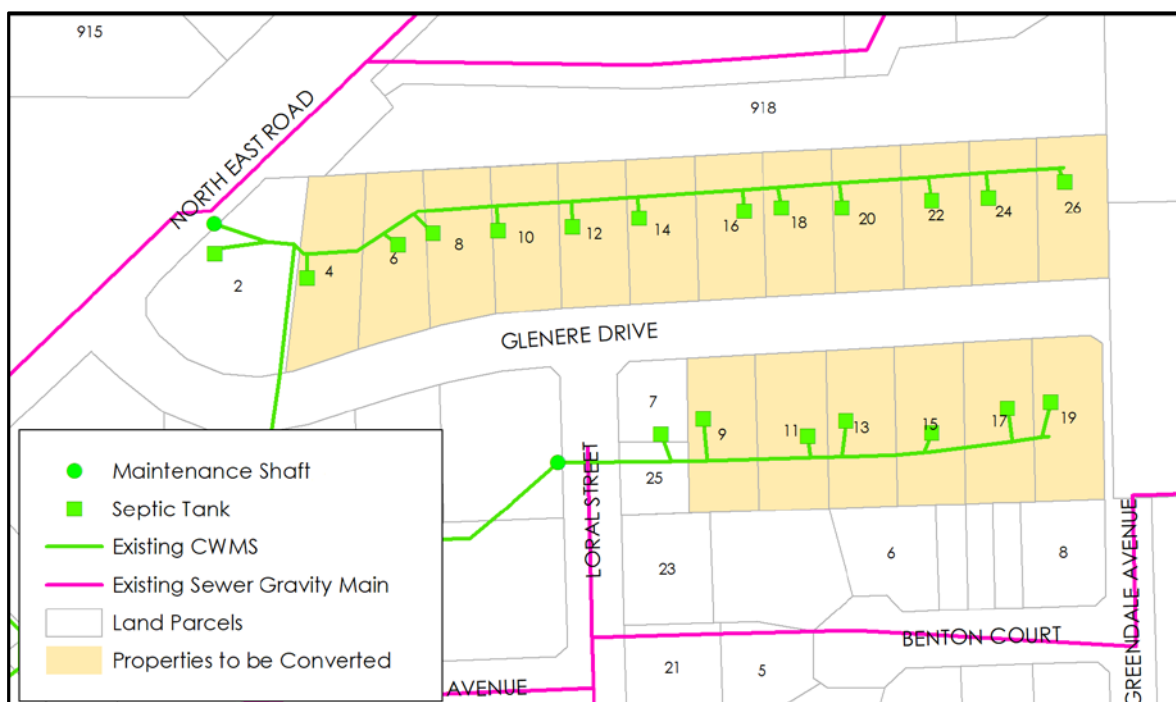


Figure 4: Glenere Drive, Modbury pilot site properties

5.1 Glenere Drive

Glenere Drive was the first pilot catchment selected for sewer conversion due to a new subdivision, and the size and condition of CTTG CWMS being not suitable for future development in the area.

As part of the pilot study, on-property assessments were undertaken at each of the 18 affected properties to assess the feasibility of different servicing solutions. These provided a high-level assessment of the existing drainage including locating the customer septic tank, as well as documenting site constraints and access restrictions.

Initial engagement with property owners at Glenere Drive involved phone calls and door knocking to discuss the Sustainable Sewers program and the requirement for an on-property infrastructure assessment. All property owners agreed to the assessments, which took place in October 2020.

The construction of 134 metres of sewer main in the road and the associated inspection points, for properties to be able to connect, was completed in December 2020. On-property works and the connection of customers to the SA Water network are planned for completion in mid-2021.

5.2 Dawson Drive

The second pilot site for conversion is Dawson Drive and includes 45 allotments. This sewer conversion will facilitate improved levels of service for existing CWMS customer and a proposed high-density development.

The on-property assessments took place between late January and March 2021. All residents agreed to the assessments. Both gravity and pressure sewer options are being investigated for Dawson Drive, to ensure full advantage was taken of the opportunity to learn from this pilot site. With learnings already being achieved, it is aimed to complete this pilot site by late 2021.

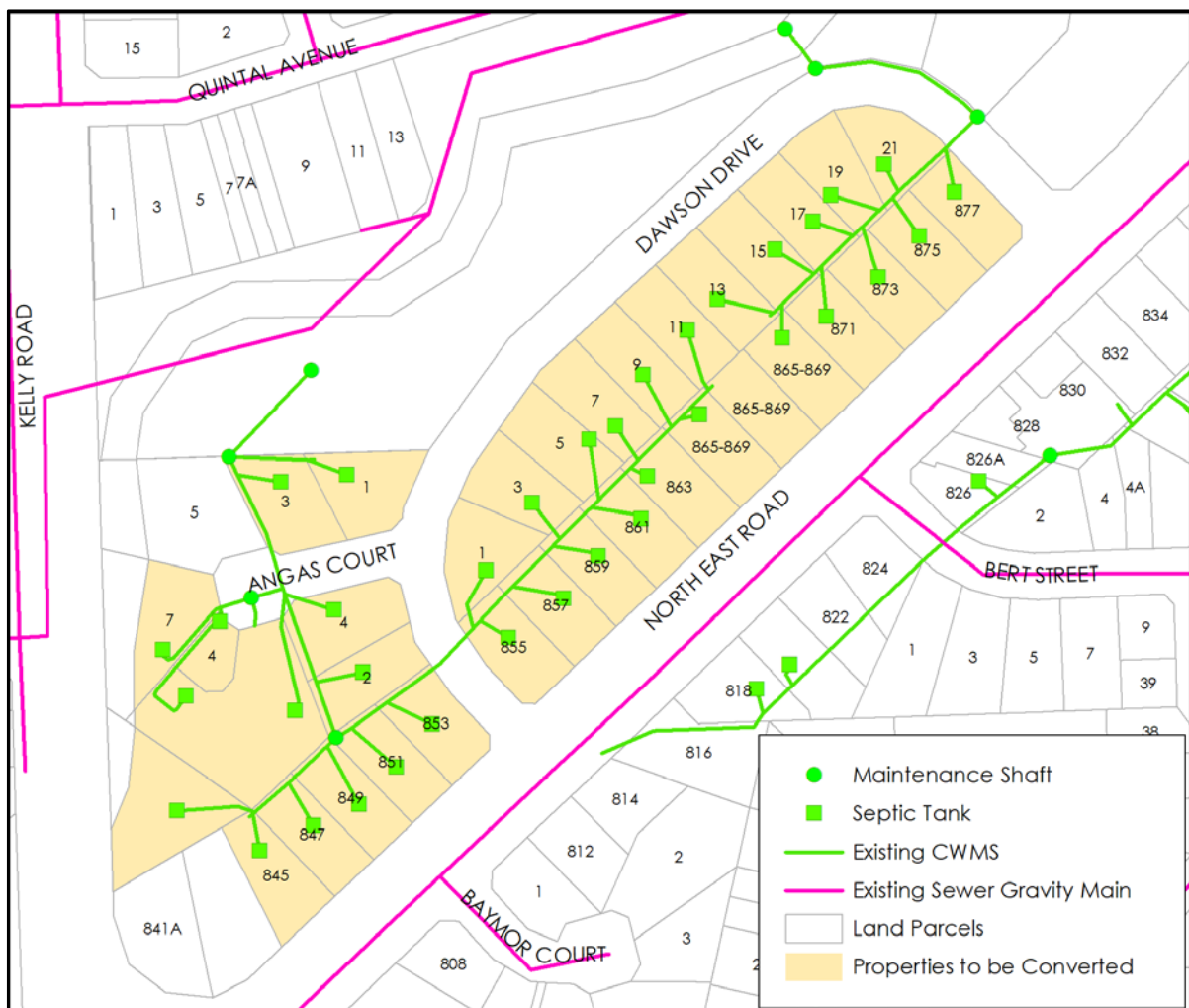


Figure 5: Dawson Drive, Modbury pilot site

Observations from site visits have included:

- Large above ground swimming pools over septic tanks, making access difficult until swimming pool relocated;
- Other infrastructure in back yards (car parts, cubby houses/animal enclosures) making access for construction equipment/small excavators very difficult;
- Access to backyards and septic tanks restricted by structures such as pergolas and animal enclosures in certain circumstances;
- Some property access is very straight forward, others are going to be very difficult.

6 Catchment Prioritisation

To determine the timing of the staging for transitioning the remaining properties and associated catchments from the CWMS to the SA Water sewer network, a prioritisation methodology was developed.

The prioritisation methodology is based on key criteria and associated weightings.

6.1 Prioritisation Criteria

The following criteria were used for prioritisation of the catchments:

- Blockages and chokes (number per 100km)
- Group overflows (number per 100km)
- Development Pressures (including number of applications and enquiries, % growth, Council identified high growth areas, such as Modbury Precinct Activation Strategy and Policy)
- Number of properties rated on abuttal
- Stakeholder involvement and interaction
- CTTG CWMS risk assessment (% length of CWMS main with a risk rating of 4 or 5)
- CTTG CWMS 10-year capital works program
- Performance of receiving SA Water infrastructure (existing % capacity for dry weather flows)
- CWMS infrastructure average age
- Proximity to sensitive environment (within 100m from water courses)
- Proximity to sensitive environment (includes native vegetation and National Parks)
- Proximity to sensitive environment (Human activity).

The criteria were weighted based on the current importance and significance of the criteria in relation to the program. Amongst the most heavily weighted criteria were those relating to performance of the networks, development pressures, and stakeholder feedback.

A sensitivity assessment was carried out to understand the relative impact of criteria and their associated weightings and provide confidence that the results were appropriately balanced and adequately reflecting priorities.

7 Delivery Stages

The approximately 4,700 properties that make up the CWMS customer base are divided into 73 catchments, ranging in size from 1 property to over 700.

Due to the size of some of the larger catchments with significant performance issues, a sensitivity assessment was conducted to identify sub catchments with existing issues and/or previously identified areas to be addressed as a priority.

Catchments were then be bundled together in groups or, in case of the urgent sub-catchments of the larger catchments, separated out according to their priorities for transition.

The aim was to create work packages of around 200 properties that could be released to contractors for construction every few months, in line with the expected construction capacity.

As a result of the prioritisation and grouping process, the three transition stages were identified.

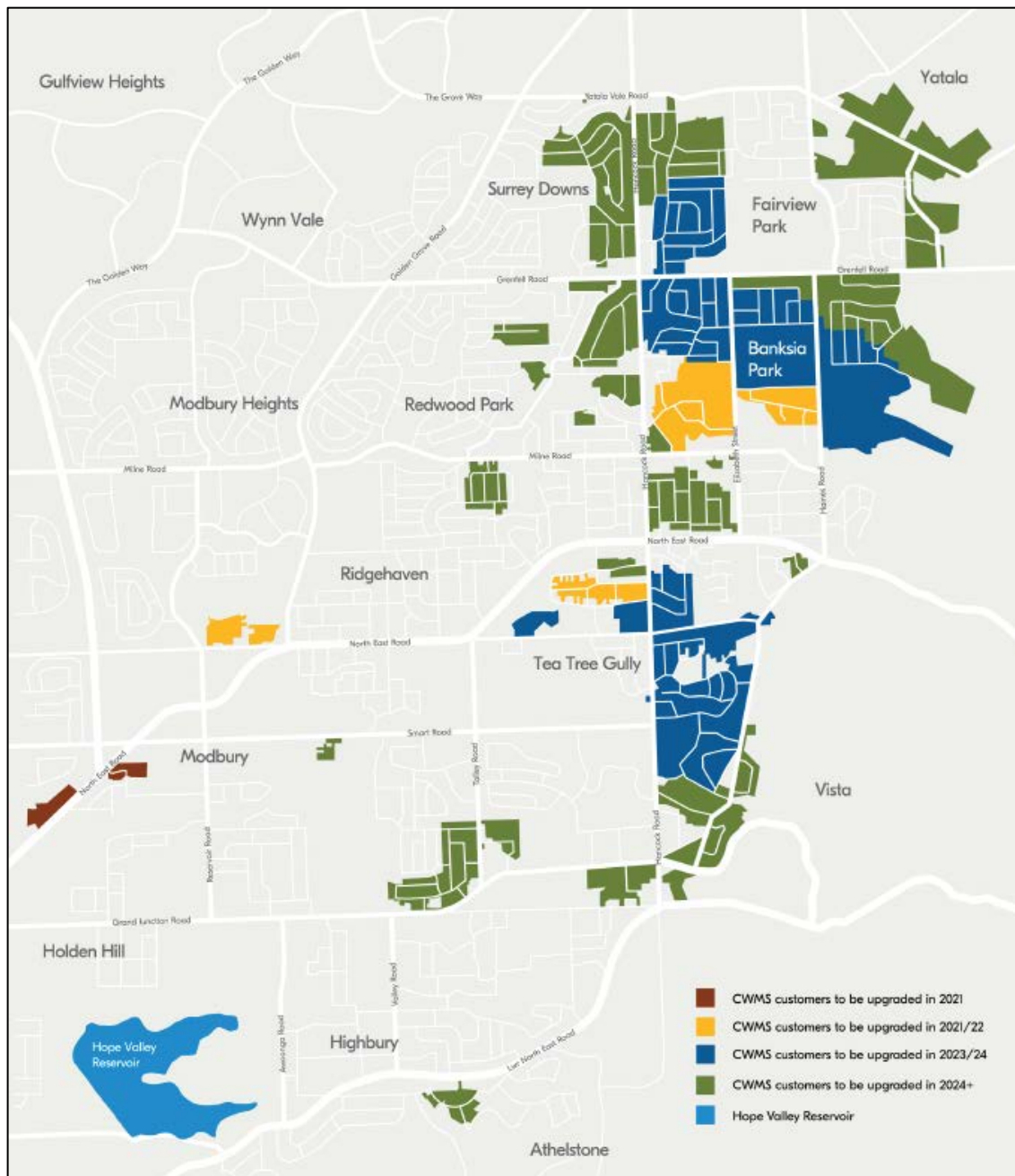
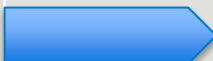


Figure 6: Map of Tea Tree Gully Sustainable Sewers Program delivery stages

Table 2: Delivery stage timing

Stages	2020-21	2021-22	2022-23	2023-24	2024-28
Pilots					
Stage 1					
Stage 2					
Stage 3					

7.1 Stage 1

Stage 1 was nominated to include approximately 400 properties, based on construction packages of approximately 200 properties.

It comprises groups of high priority catchments with significant performance issues, aligned with Council priorities and feedback from the community.

Includes catchments in Modbury North, St Agnes and Banksia Park totalling over 400 properties. The aim is to start construction in late 2021, following obtaining all relevant approvals, and complete customer connections by late 2022.

Table 3: Stage 1 catchments for transition

Program #	Title	Description	Number of Customers
Stage 1	Sandra Drive, St Agnes (Phase 1)	Lay new sewer mains and connect customers Council catchments: • 1 Greenwood • 29 Susan • 1 Sandra • 17 Kennedy • 39 Kennedy • 37 Kennedy • 11 Brixham	95
	Jasper Court, Banksia Park (Phase 1)	Lay new sewer mains and connect customers Council catchments: • 5 Jasper This sub-catchment captures the following previously identified problem areas: • Oleander Drive • Coulls Road / Elizabeth Street • Steventon Drive	262
	Beltana Avenue, Modbury North	Lay new sewer mains and connect customers Council catchments: • 11 Beltana • 29 Beltana • 9 Fairleigh	71
Subtotal Stage 1			428

It should be noted that the pilot sites at Glenere Drive and Dawson Drive catchments were ranked highly in the prioritisation process but were excluded from Stage 1 planning as these catchments are currently in advanced planning and construction.

7.2 Stage 2

Around 1,600 properties in catchments within the suburbs of St Agnes, Banksia Park, Fairview Park, Tea Tree Gully and Vista and Surrey Downs.

Construction planned to start in mid-2022 and be completed in mid-2024.

Table 4: Stage 2 catchments for transition

Program #	Title	Council catchments	Number of Customers
Stage 2	Sandra Drive, St Agnes	• 1 Greenwood • 1 Tregeagle • 39 Kennedy • 37 Kennedy	226
	Jasper Court Banksia Park (Stage 2)	• 5 Jasper	200
	Jasper Court Banksia Park	• 5 Jasper • 60 Hains • 48 Shelley	248
	Zealand, Surrey Downs	• 5 Zealand • 22 Tanya • 370 Grenfell • 378 Grenfell	160
	Sandalwood, Tea Tree Gully/Vista	• Sandalwood	392
	21 Langer Fairview Park	• 21 Langer • 267 Hancock	418
Subtotal Stage 2			1,644

7.3 Stage 3

The remaining catchments of the CWMS, in the suburbs of Fairview Park, Banksia Park, Tea Tree Gully, Redwood Park, Ridgehaven, Vista, Hope Valley, Highbury and Modbury, comprising over 2,000 properties.

Construction planned to start in 2024 and be completed within the 2024-28 regulatory period.

Table 5: Stage 3 catchments for transition

Program #	Title	Council catchments	Number of Customers
Stage 3	Remaining catchment groups	Lay new sewer mains and connect customers for all remaining customers. To be delivered in 2024-28 regulatory period • 267 Hancock, Fairview Pk • 265 Hancock, Banksia Park • 205 Hancock, Tea Tree Gully • 36 Browning, Tea Tree Gully • 46 Shelley, Tea Tree Gully • 17 Neale, Tea Tree Gully • Nicholas, Tea Tree Gully • 13 Cronulla, Redwood Park	2,579

		• 23 Kirrawee, Redwood Park • 49 Cronulla, Redwood Park • 57 Cronulla, Redwood Park • 449-451 Milne, Ridgehaven • 88-96 Barracks, Vista/Hope Valley • 1245A Grand Junction, St Agnes/Hope Valley • 1 Palmer, Fairview Pk • 84 Littler, Fairview Pk • 2 Ramsay, Modbury • 25 Amanda, Surrey Downs • 39 Amanda, Surrey Downs • 435 Yatala Vale, Surrey Downs • 1 Carnarvon, Redwood Park • 27 Eva, Redwood Park • 6 Kinnaird, Highbury • Stirling, Banksia Park • 36 Carnarvon, Redwood Park • 47 Hancock, Vista • 43 Tolley, Hope Valley • 29 Amanda, Surrey Downs • 410 Hancock, Surrey Downs • 32 Elizabeth, Tea Tree Gully • 1A Dinham, Highbury • 22 Country, Highbury • 27 Dene, Highbury • Macmahon, St Agnes • Farm, Redwood Park • 3 Loral, Modbury • 215 Hancock, Banksia Park • Crampton, Fairview Pk • 23 Hancock, Redwood Park • 19 James, Vista • 44 Hancock, Vista • 2 Barkala, Redwood Park • 569 Yatala Vale, Fairview Pk • 95 Hamilton, Fairview Pk • 15 Whinnen, St Agnes • Benbowie, St Agnes • 5 Sherwood, Redwood Park • Hamilton/Golf, Fairview Pk • 523 Grenfell, Banksia Park	
Subtotal Stage 3 (RBP24)			2,579

8 Customer Transition Process

The customer transition process maps out how CWMS customers will transition to become SA Water sewer customers.

A. Introduction letter – On-property Investigations (3-4 months prior to on-property works commencing)

Prior to the commencement of the on-property investigations SA Water will write to customers advising of the conversion of their catchment, including the connection to their property. In this letter we will request the customer to book online for an on-property assessment.

An on-property works information sheet on the scope and process will be included in the introduction letter. The information provided will cover:

- On-property works scope and process (including obtaining before and after photos of property)
- Guidelines for reinstatement
- Process for decommissioning of septic tanks
- How to book an on-property inspection/audit (via online platform or phone call)
- A timeline for becoming our sewer customer and when we will be in contact with further information
- Benefits of becoming our customer
- Contacts for more information

B. Sewer Main Construction Letter (4-5 days prior to works commencing)

This letter will advise the customer of the commencement date of the sewer main construction and associated works. It will also include scope of works, potential impacts and contact details for any enquiries.

C. On-Property Works – Commencement Reminder (4-5 days prior to works commencing)

Prior to the on-property works commencing, we will call or door knock the customer to remind them when the works are commencing. We will also remind the customer of the associated works, including timeframes, scope, potential impacts of the works and contact details for any enquiries. This will include a reminder about the on-property reinstatement guidelines (including customer sign off to occur at completion of the works).

This will also allow the homeowner enough time to inform tenants of proposed works.

D. Sign-off on On-Property Works and Reinstatement

Once all the on-property and reinstatement work is complete, we will contact the property owner to confirm that work has been completed satisfactorily and obtain sign-off for all the on-property works.

E. Welcome Pack

Once all the works are completed a welcome pack will be sent. This pack will include information on SA Water's Standard Customer Contract and include:

- o Change in rates and an example of an SA Water bill with sewer rates included

- o Benefits of becoming our sewer customer
- o Process to sign up to mySAWater
- o Transition date
- o Process for the pro-rata of CWMS rates and applicable reimbursement
- o Education on healthy sewers

F. Customer billing transition

SA Water will advise Council of the date the customer will transfer to the SA Water billing system. This will be undertaken in bulk on a regular basis, once connection works have been completed for a group of customers.

If a customer has paid their CWMS rates past the transfer date, then the customer will be asked to nominate their preferred reimbursement choice, either a credit on their account or a refund. These details will be given to the Council to then action a reimbursement.

Upon conversion to SA Water, customers will pay standard sewer charges based on property value, on the same basis as other SA Water sewer customers.

Appendix A - Map of Tea Tree Gully CWMS Catchments

