

Upper Spencer Gulf Long Term Planning

October 2010 Update

SA Water is currently undertaking a long term planning investigation for the Upper Spencer Gulf region of South Australia.

Long term planning is undertaken to ensure SA Water has infrastructure and resources to meet customer requirements into the future.

The long term planning for Upper Spencer Gulf will establish a strategic direction and framework for developing the water supply and wastewater (sewerage) systems in the region to meet increases in demand over the next 30 years.

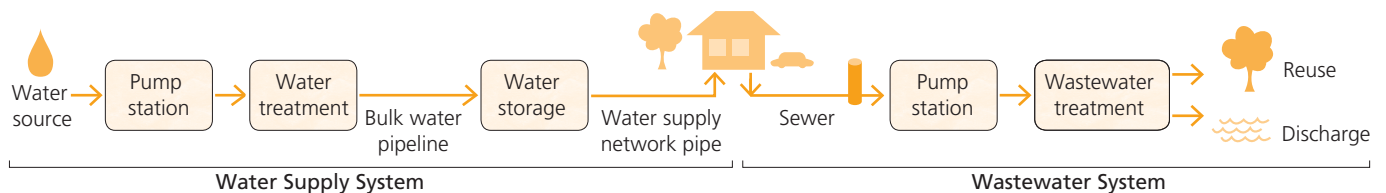
Long term planning outcomes will be used to schedule capital works within the region.



Upper Spencer Gulf long term planning investigation area

Terminology

Some of the terms commonly used in the long term planning investigation are:



Water supply system (also known as mains water)

A water supply system is the physical infrastructure used to source, treat, transport and supply water. A water supply system likely includes the major components: water source; water treatment plant; water pump station(s); bulk water pipeline; water storage(s); water supply network pipelines; and customer connections.

Wastewater system (also known as sewerage system)

A wastewater system is the physical infrastructure used to collect, transport and treat wastewater. A wastewater system likely includes the major components: customer connections; pipes flowing under gravity (also known as sewers); maintenance holes; wastewater pump station(s); pumping pipeline(s); wastewater treatment plant; and treated wastewater reuse / discharge.

Wastewater (also known as sewage)

Water used in a human domestic, industrial, commercial or agricultural activity and, because of this, contains liquid and solid waste products, chemical impurities and microbiological impurities (in particular pathogens, which are disease causing organisms).

Greywater

Wastewater generated typically from bathrooms (including showers, baths and hand basins), and laundries (including washing machines and troughs). The quality of greywater

can be highly variable. In appropriate situations greywater can be reused (either untreated or treated). Refer to the Department of Health (www.health.sa.gov.au) for further information regarding greywater.

Treated wastewater (in some instances this can also be referred to as effluent)

Wastewater that has been treated at a wastewater treatment plant (or by an appropriate onsite wastewater treatment system) to remove solids and impurities. Wastewater treated at a wastewater treatment plant is also disinfected. Refer to the Department of Health (www.health.sa.gov.au) for further information regarding onsite wastewater treatment.

Recycled water

Wastewater treated to a quality appropriate for a particular type of reuse. The amount of treatment undertaken determines for what purposes recycled water can be used. There are several uses for recycled water including urban and rural irrigation.

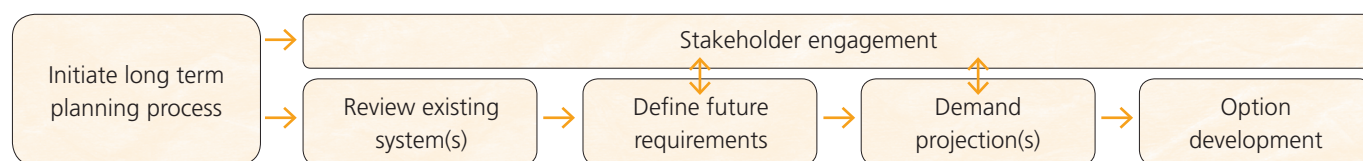
Stormwater

Water runoff from land and solid areas such as paved streets, car parks and building rooftops during rain. Stormwater can also be treated (and disinfected) and reused. Currently, stormwater management (infrastructure, reuse and maintenance) is the responsibility of local government.



The long term planning process

The process of long term planning includes the steps:



The process involves:

- An analysis of the existing water resources and water supply system infrastructure within the region
- An analysis of the existing wastewater system infrastructure within the region, including reuse and discharge of treated wastewater
- An analysis of historical connections and demand on the existing water supply and wastewater systems within the region
- An analysis of population growth, residential development, commercial / industrial expansion and the development of future demand for both water supply and wastewater systems

- Consideration of factors that may influence demand for water, including water restrictions and climate change
- Consideration of factors that may impact on the wastewater systems, including greywater use and recycled water schemes
- An assessment of potential options to increase the water supply and wastewater systems capability.

Stakeholder engagement is run in parallel with the planning and engineering steps of the process to allow consultation and input.

Your input is needed to ensure issues, ideas and suggestions relevant to the scope of the long term plan are considered.

Your involvement

To date we've:

- Given presentations to the Upper Spencer Gulf Common Purpose Group, which includes representatives from local council, Regional Development Australia, and other key local groups
- Given presentations to each of the local councils in the planning area: The City of Whyalla; Port Pirie Regional Council; Port Augusta City Council; and the District Council of Mount Remarkable
- Held meetings with local council planning and engineering staff to understand future requirements
- Delivered a mail-out to the local community, including a survey
- Given a presentation to the Northern and Yorke Natural Resources Management Board.

Stakeholder engagement is continuing, and in the coming months SA Water will be seeking input from other stakeholders including Regional Development Australia, Natural Resources Management Boards and community groups.

Council feedback

The key items raised with SA Water by local councils include:

- Desalination
- Influences on demand
- Collaboration between SA Water and local council to establish or expand recycled water schemes
- Baroota and Bundaleer reservoirs
- Industry growth and demand
- Impact of expanding / new mining ventures within the region
- Infrastructure asset age.

Community survey results

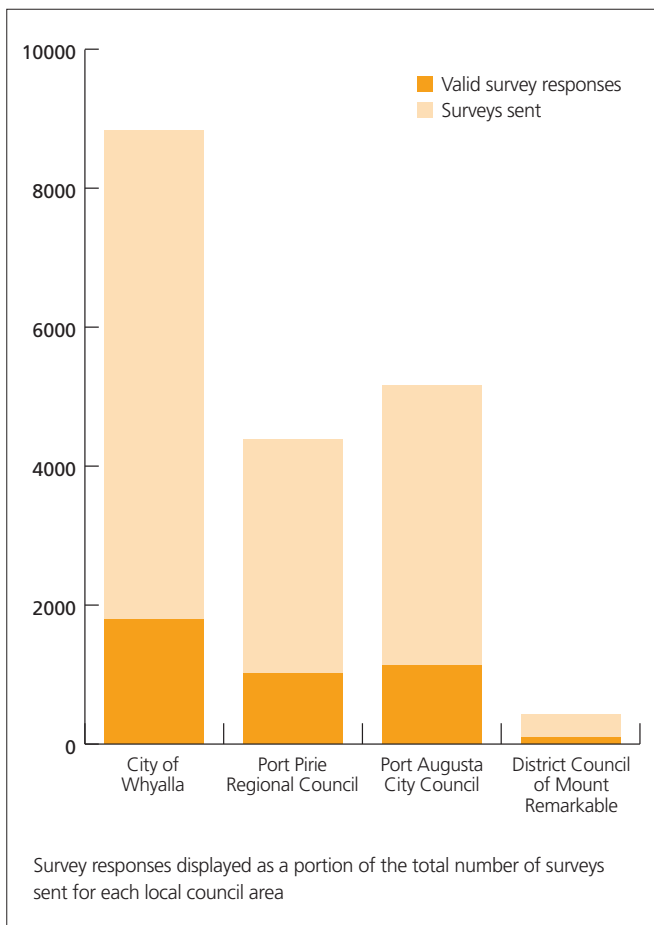
The survey generated a positive response; of the 18,828 surveys sent 4,621 surveys were returned. This is a response of approximately 25%.

Data received

Of the surveys received not all data could be used due to incomplete or unclear responses. As such 4,039 surveys were considered valid. This is approximately 21% of the total sent.

Who responded?

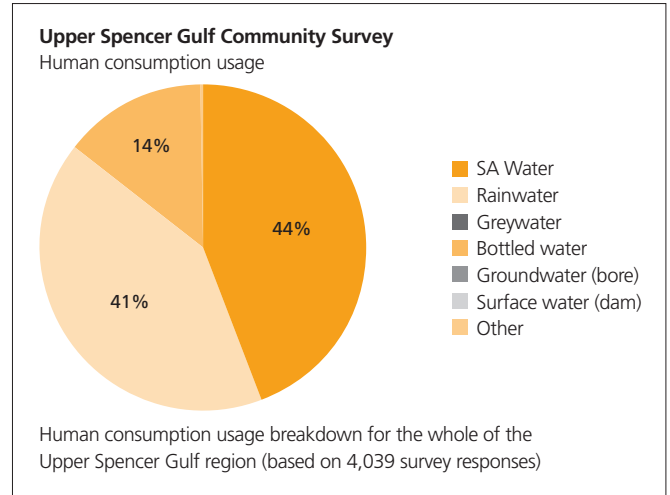
Responses to the survey were grouped by local council area. The response rates were largely the same for all local council areas. This means that because more surveys were sent to people in the City of Whyalla, more responses were also received from people in the City of Whyalla.



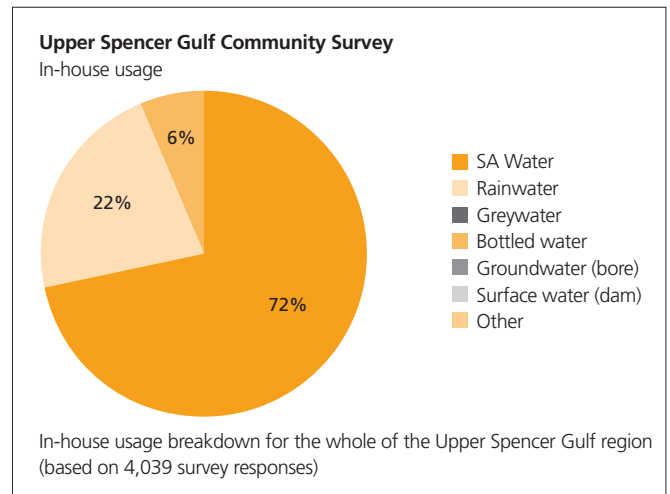
What we found out

According to the survey responses, water supplied by SA Water is the primary source of water used for human consumption by people within the Upper Spencer Gulf region. This is closely followed by rainwater and then bottled water.

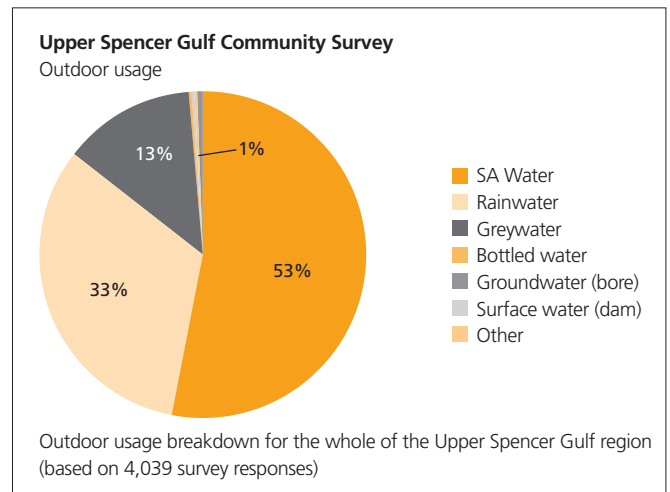
This pattern of use is slightly different between local council areas. Most notably responses from within the Port Pirie Regional Council indicated a lower use of rainwater for human consumption as compared to other areas within the region. This can be attributed to local environmental factors associated with the smelter in Port Pirie.



Survey responses showed water supplied by SA Water is also the primary source of water for in-house uses including showering and toilet flushing. A significantly larger portion of the region uses water supplied by SA Water for in-house uses as compared to other sources of water, including rainwater.



Survey responses showed that water supplied by SA Water contributes to slightly over half of the water used for outdoor uses (including rural), with rainwater contributing slightly over a third.



About the future

Approximately 90% of survey respondents indicated they would continue to use their current sources of water in the future. For those who thought they might change or were unsure, comments mainly related to the installation of rainwater tanks (including additional tanks) and increased use of greywater.

The survey asked people about their use of both indoor and outdoor water saving measures (e.g. installation of water efficient appliances, low flow showerheads, dual flush toilets, dripper irrigation systems, reduced lawn areas etc).

Most responses across the region indicated they had already implemented water saving measures, with 70% already saving water indoors and around 60% already saving water outdoors. Only a very small percentage of respondents indicated they were planning to implement further water saving measures in the next two years.

When considering the future, there was strong support shown by respondents for increased rainwater, stormwater and greywater use as a supplement to water supplied by SA Water.

There was a mixed response to desalination as a future water supply source.

Clarification

Survey responses indicated one of the questions may have been unclear and interpreted in more than one way.

Question 4 of the survey read as follows:

“If SA Water’s wastewater collection service is currently not available to your property, would you like it to be made available sometime in the future? (for properties located in a township only)”.

“Wastewater collection service” was intended to refer to wastewater (sewerage) systems where wastewater is collected from people’s properties and transported to a wastewater treatment plant for treatment and discharge.

In some areas of Upper Spencer Gulf this service is not provided by SA Water and we were seeking to understand whether property owners in these areas were interested in receiving such a service. We apologise for any confusion and to those respondents who may have interpreted “wastewater collection service” to mean a recycled water system.

Due to the confusion we have not included responses to this question in the analysis.

Next steps

The next steps in the planning process are:

- continue stakeholder engagement
- develop demand projections
- assess potential options to increase water supply and wastewater systems capability.

You will be kept informed of progress through further project updates.

More information

For further information regarding this long term planning investigation please contact SA Water by:

- Phoning the Customer Contact Centre on **1800 812 362**
- Emailing **usgplanning@sawater.com.au**
- Visiting SA Water online at **www.sawater.com.au**

Other long term plans

- Eyre Region
- Yorke Peninsula
- Kangaroo Island