

Business Relations e-Bulletin

Issue 20 – March 2016

Adelaide Desalination Plant

Facts, Figures and Touring options available for SA Water's largest desalination plant.

The desalination plant has now been in operation serving drinking water and providing security of supply to not only residential customers but also our key business customers since 2011.

How much water can the Adelaide Desalination Plant supply?

In full operation, the plant is capable of delivering 100 gigalitres (GL) per year. This is about half of Adelaide's annual water needs.

The plant's water production capacity is extremely flexible. The output of the plant can be as low as 10% or as high as 100% (in 10% increments).

The ADP's water production can:

- Increase or decrease in response to customer demand
- Increase in times of drought
- Decrease when the state experiences high rainfall
- Meet sudden need requirements in times of emergency

How much water is it currently producing?

- Water production to date (to end of December 2015) = approximately 131 billion litres
- Water production for last month (December 2015) = approximately 760 million litres



Tours Available

The Business Relations team would be happy to assist any of our business customers (or staff members) who would like to visit and tour the Adelaide Desalination Plant to learn more about the desalination process and the project.

Tours are only by appointment and groups of 10 to 35 can take the tour. The tour takes approximately 1.5 hours.

To learn more about the tour please contact businessrelations@sawater.com.au or phone 7424 3753.

Hauling Wastewater for Co-digestion

High strength organic waste segregation and disposal

Recently SA Water's Business Relations and Trade Waste groups have worked with industrial trade waste customers on projects to segregate and collect high strength organic waste to avoid it from discharging to sewer. Diverting these waste streams from sewer can result in decreased trade waste charges and sewer degradation. Usually this process involves the collection and onsite storage of high strength organic waste until a hauled waste truck removes the waste and transports it to a treatment facility.

In this article we provide an overview of the implications of segregating your waste and having it hauled to our co-digestion facility at the Glenelg Wastewater Treatment Plant (GWWTP).

This trade waste treatment method provides an alternative to discharging the waste through the sewer network while providing mutual benefits to customers, the environment and SA Water.

What is co-digestion and how does it play a part in the wastewater treatment process?

Current biological wastewater treatment plants introduce air and biological organisms to the coarsely filtered raw sewage. Treatment removes the organic content which forms a solid leaving behind the treated wastewater.

This organic solid is a biologically active sludge containing carbon and nutrients which must be constantly removed to prevent it building up within the treatment plant reactors.

Following removal, the activated sludge must be stabilised by removing:

- Biological instability issues due to high fraction of biodegradable organic matter present
- Hygiene issues such as viruses, bacteria and other pathogens
- Excess liquid held within the sludge.

SA Water generally stabilise excess activated sludge by means of gravity thickening to help remove some excess liquid before introducing the waste stream to an anaerobic digester. Here, the sludge is retained at a specific temperature and pH for a set retention time in the absence of oxygen. This allows the organic volatile solids to be converted into a biogas containing mostly methane and carbon dioxide while the specific retention time and temperature successfully destroys the present pathogens. Further dewatering may then occur before the dried sludge is stockpiled for re-use as a component of compost.

The Biogas that is produced as a bi-product of this process is then used to fuel combined heat and power plants to offset the treatment plants electricity needs and therefore reducing the operating costs of the treatment plant.

Co-digestion refers to the process of the addition of industrial high strength organic waste to the existing sludge in the anaerobic digesters. In some instances, this extra organic load provides a higher yield of biogas which in turn produces more electricity to offset the extra cost of accepting the waste in this manner while leaving a little in excess.

Treatment of the high strength organic waste in this way has benefits to both SA Water and the customer. A few examples are detailed below:

Benefits to SA Water	Benefits to the Customer
Removal of corrosive waste from the sewerage network prolonging life of the network	Reduced volume and strength of industrial waste to sewer
Increased biogas production in the treatment plant digester offsetting electricity costs	Reduced load of contaminants being discharged to sewer
Removal of significant contaminants incurring treatment costs in the treatment plant	Reduced trade waste bills due to reduction in volume and contaminants
Removal of significant volume and contaminants which frees up capacity within the network and our treatment plant	May resolve compliance issues due to discharges having a greater contaminant concentration than authorised limits

What high strength waste streams are suitable?

High strength organic waste is the term we use for the types of waste we accept at our co-digestion facility. Ideally, the waste will contain a high concentration of highly biodegradable carbon rich contaminants.

Food industry waste is generally regarded as a plentiful and beneficial source of co-digestible material. This includes but is not limited to wastes such as:

- Dairy production waste
- Starch products and sugar confectionary
- Brewery waste

- Distillation and fermentation waste
- Vegetable processing waste
- Meat processing waste.

SA Water is happy to assess any waste for co-digestion to determine its suitability. There is an application, sampling and laboratory trial process to determine whether the waste is suitable for co-digestion. Once it has been confirmed that your waste is suitable, you would need to engage a liquid waste disposal contractor to collect your waste. If you are already using a contractor for grease arrestor pump outs, it is likely that you can use the same contractor to collect your high strength waste stream. There are also other considerations such as onsite storage of the waste, potential WHS and odour issues, logistical requirements to make it convenient for the contractor as well as an efficient method of collection and segregation.

If you are interested and think your waste may be suitable and would like assistance, please contact Business Relations on the details in the banner below.

Site tour of Pernod Ricard

Rowland Flat Winery Supplier Tour

On Friday 19 February the Business Relations Team attended a supplier tour of Pernod Ricard’s Rowland Flat Winery site.

The Business Relations Team have previously worked with Pernod Ricard to look at areas where water efficiencies can be made on site and advise on how data logging and smart metering can be used to highlight areas of high usage and identify potential leaks.



When Business Relations first visited the site, operations were fairly quiet as the business was not in vintage. We were recently fortunate enough to be invited back for a supplier site tour when vintage was in full swing, which really highlighted to us what a difference the time of year can make to water use at the site.

Being able to see our customer’s processes in operation like this gives SA Water a greater understanding of the importance of a reliable supply of quality drinking water to their operations and how this water is used in their processes. Touring the winery with a number of Pernod Ricard’s suppliers meant that we learnt the importance of other inputs to the business and how they all work together from grape through to the bottleshop shelf.

New SA Water Website - Survey

Take the survey and you could win!!

We're committed to delivering a great experience to every customer who visits our website. Even though our site is brand new we are continuing to improve it. To help us do this, and to get an insight into how it is working for our customers, we've launched a survey. This is the first time we have surveyed customers since we launched the new site just over six months ago. We'd love for you to provide feedback on the website via the online survey.



Please click on the image on the right to be directed to the survey!

Finger Point Wastewater Treatment Plant Tour

Spaces available on this South East Treatment Plant Tour



Have you ever wondered what happens to your sewage? Did you know that 99.9% of sewage is just water? SA Water invites you to come on a tour of the Finger Point Wastewater Treatment Plant where locals managing the plant will give you a behind the scenes look at how sewage is managed.

Click on the image on the left for more details on this tour and to access the booking system.

If you are based in other parts of the state and are interested in a similar tour, please contact your Business Relations Consultant or visit the SA Water webpage via the following link to view upcoming tours or submit an enquiry.

[SA Water Tours and Presentations](#)

Disclaimer:

SA Water's Business Relations Group provides recommendations and suggestions only. It is advised that further investigations are detailed studies are completed before any projects are implemented. All applicable standards & guidelines (Australian, EU, AQUIS, HACCP, Australian Drinking Water Quality Guidelines etc.) should be adhered to, and care should be taken to ensure water and wastewater minimisation programs do not negatively impact health or processing operations.