

Business Relations e-Bulletin

Issue 25 – June 2017

Time to talk recycled water

Many of you would be aware of our extensive recycled water network installed in many parts of metropolitan Adelaide. The number of customers supplied from this network is continually growing, as is interest in connecting to this alternative supply.

Our non residential recycled water schemes are now managed within the Business Relations team – previously they came under Business Development. For more information on these schemes, please contact Wendy Smallwood – wendy.smallwood@sawater.com.au / 7424 1145.

What is recycled water suitable for?

All non-residential recycled water users require an approval from the Department of Health, as each scheme has a slightly different level of water quality, suitable for the use. Uses for recycled water in South Australia vary dependant on the scheme, but generally it can be used for:

- residential garden watering
- irrigation of ovals, playing fields and golf courses (*subject to contract agreements*).
- irrigation of turf, pasture, trees, vineyards and most commercial crops
- dust suppression (*subject to applications methods*)
- compaction on construction & road network sites
- toilet flushing.

If you are looking to install or alter a recycled water supply, you will need to be aware of requirements set by the Office of the Technical Regulator (OTR). For more information please refer to the plumbing advisory notes on the “Energy and Environment” page of the OTR website www.sa.gov.au

Planning on changing or altering your trade waste pre-treatment system, or testing a new device?

What you need to know

Due to a variety of reasons, many of our trade waste customers will come to the point where they need to modify their trade waste pre-treatment systems. This can result from business growth, looking for greater efficiencies, changes to business processes or the system has simply reached the end of its useful life.

If you find something yourself in this situation, you need to contact our trade waste branch or your respective trade waste officer.

Ideally, this contact should take place as soon as possible when potential changes are in the planning stage. The need for this immediate contact is highlighted within your trade waste authorisation, but we've detailed some of the key reasons below:

Authorised conditions

Each customer operates under a number of strict conditions detailed within their own specific trade waste authorisation. The authorisation is produced in line with the details within the application which provide a snapshot of the business at that point in time. This means the authorisation is specific to the pre-treatment devices, anticipated flow rates and processes at this time. During audits, trade waste officers ensure current practices are in line with the authorised conditions, with any discrepancies deemed as non-compliant and open to further action.

Keeping your trade waste officer informed of any changes, however minor you may think they are, will allow them to assess the impact of these changes to the sewer network and to augment your authorisation where appropriate to ensure you remain compliant.

Often, increases to discharge flows must be modelled to ensure there is enough capacity to accept the extra waste within the sewer network. This information also helps keep existing models up to date for assessing new connections.

Straightforward replacement of like-for-like approved pre-treatment devices can be authorised by your trade waste officer. However, more complex changes incorporating new technologies should be properly assessed and controlled under a temporary Pre-treatment System Trial Authorisation.

Pre-treatment System Trial Authorisations

In order to mitigate risks to SA Water infrastructure, the introduction of novel pre-treatment systems at a business is controlled under a temporary trial agreement. This structured approach is agreed between SA Water, the business and third party contractor prior to any works taking place. The details are captured within a trial authorisation which is signed off by all parties.

The first step in the process is to fill out a temporary trial application form where you can detail the proposed system and changes. This form can be arranged through your trade waste officer or by contacting our trade waste branch.

By following these correct methods, we can acknowledge anticipated non-compliances or issues within the trial authorisation and make provisions to help protect your business from unforeseen problems such as bill shock or non-compliance notifications.

Some commonly overlooked items that can be incorporated into trial authorisations are:

- temporary augmentation of discharge limits or non-compliance levies during periods of uncertain discharge quality
- agreement on any enhanced sampling conditions for assessment of equipment performance
- augmentation of sampling turn-around times to ensure timely indication of equipment performance
- contingency planning for actions in the event of trial failure or discrepancies.

By working with us, we can help to allow your pre-treatment upgrades run smoothly while ensuring that your trade waste compliance is not compromised throughout the process.

If you're unsure whether any changes you are thinking about making to your business will impact your trade waste or requires to be communicated to your trade waste officer, don't hesitate to contact us. Your trade waste officer is there to assist you where possible and can give you the best advice regarding your requirements.



Leaks and faults – It's often the small things

Monitoring and preventative maintenance could help save you thousands of dollars

Many of our customers would be aware of the services we provide around helping to increase your understanding of water use on your site. These include the [Leak Analysis and Water Use Profiling Service](#) and most recently our smart metering product offered through our [Customer Water Use Portal](#).

It may surprise you to know however, the amount of issues we find when attaching data logging equipment to customer meters through either of these services.

Central to these services is the use of data logger to monitor water consumption. This enables us and our customers to understand the variation in water consumption down to 15 minute increments and even down to the minute depending on what we are looking for. This clarity of data starts to paint a clear picture of how water is being used at your site.

The top two issues we come across are:

1. Consumption rarely returns to zero

Often soon after attaching equipment, we discover water consumption actually never returns to zero. We refer to this as 'base flow'. In some instances, depending on the site, this is normal (such as in a hospital where you would expect continual use of water), but for a vast majority this can be a surprise and can be the identification of an undetected leak.

It's not uncommon to see these consistent base flows that end up being identified as undetected leaks of around five litres of water a minute. This might not seem like much, but multiply that by just one day and that's more than 7000 litres, or over 50,000 litres of water lost in one week!

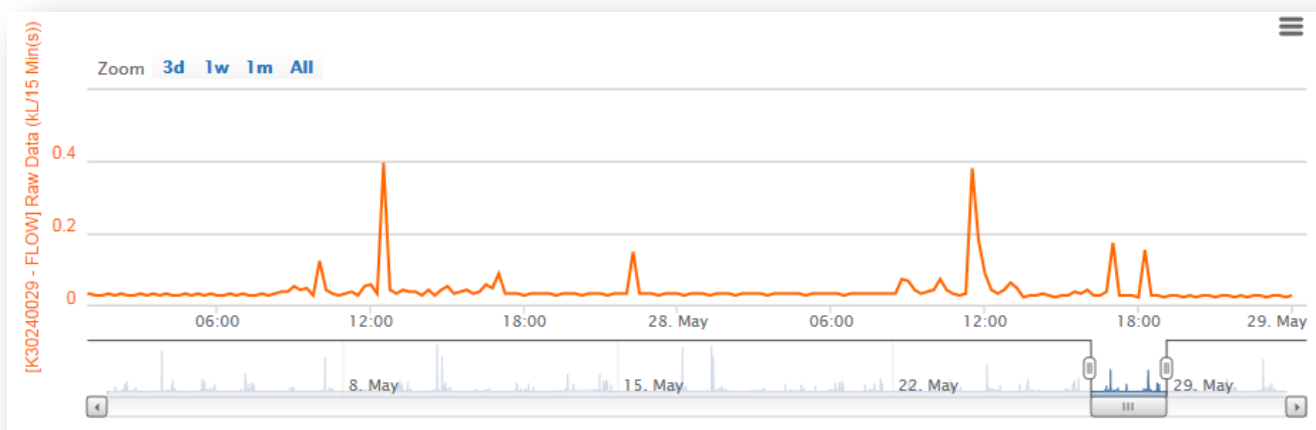


Figure 1: example of continuous water consumption, never returning to zero

2. Unexplained high water use events

Often customers engage us to look more closely into their water consumption after an event such as receiving an unjustifiably high water bill or a Notice of High Water Use, as explained later in this e-Bulletin.

Unfortunately, installing monitoring equipment after the event does not always pick up an issue, especially if it's a piece of randomly malfunctioning equipment or an incorrectly programmed irrigation system. But if you have already had installed permanent monitoring equipment such as our smart metering equipment through our Customer Water Use Portal, you have the tools to continuously monitor and even set up automatic alerts for these types of faults.

When we are fortunate enough to come across such issues identified by the data, we can quantify the volume of the issue, the flow rate and even the timing. This valuable data can help pin point the root cause of the issue and therefore any steps to rectify it.

Often the issue can stem from something as simple as an incorrectly programmed irrigation system, or quite commonly a faulty float valve or solenoid, such as those that control flow into a storage tank, an evaporative cooler or another piece of equipment.

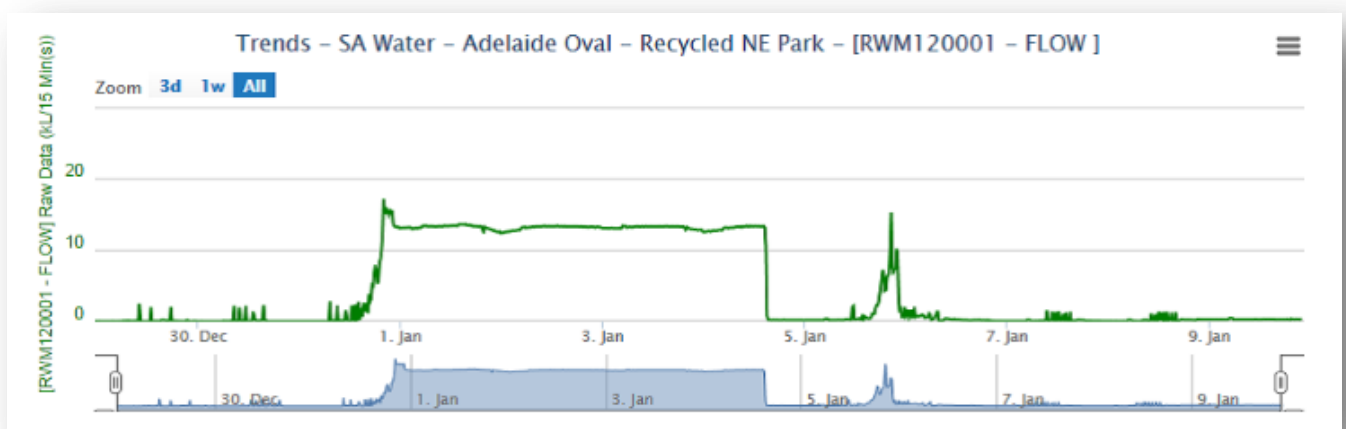


Figure 2: example of an 870 litre per minute leak identified at Adelaide Oval due to a faulty float valve

Top three tips to prevent unnecessary waste of water

1. **Monitor water consumption regularly**, ideally through a product such as our Customer Water Use Portal setup with automatic high water use alarms.
2. **Perform regular scheduled preventative maintenance** on equipment such as float valves, solenoids and toilet cisterns.
3. Where appropriate, consider installation of a **leak shut off valve**, which can continuously monitor water consumption, and shutoff the supply if water use is over a certain threshold.

If you would like to explore how we can be of assistance or would like more information on the products and services we offer, please do not hesitate to contact us.

Notice of High Water Use Letters explained

What is a “Notice of High Water Use”?

If your water consumption, based on a quarterly meter read is significantly higher than it was for similar periods of previous years it may trigger a Notice of High Water Use letter to be sent to the water account holder.

This letter is sent before the water use is actually billed and it acts as an alert that something may not be quite right with the water use through a particular meter.

This letter is automatically-generated letter and is sent to the customer when all three of the following criteria have been met:

- water use is at least 170% higher than the average use for similar periods of the previous three years
- water use is at least 50 kilolitres greater than the highest use recorded for similar periods of the previous three years
- water use is higher than 200 kilolitres.



The letter brings to the customer’s attention their water use is out of the norm for that quarter compared to previous use. If a customer believes nothing has changed in regards to their water consumption habits, this indicates the need to further investigate other possible reasons for the increase.

If you would like further clarification on these letters, don’t hesitate to contact your Business Relations Consultant. If you don’t have a direct Business Relations Consultant, please call the Business Relations team on 7424 3753.

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 et.c) should be adhered to, and care should be taken to ensure water and wastewater minimisation programs do not negatively impact health or processing operations.