

# Beyond the bowl



At Queensland Urban Utilities, we put sewage through extensive filtration and treatment processes to turn it from waste back into water that's safe to be released into the environment.

Not only do our treatment processes ensure your waste doesn't harm the environment, but we are turning it into something useful – energy. We tap into the energy stored in the waste to provide a renewable energy source, helping to reduce our carbon footprint.

## What happens after you flush?

You probably don't usually think about what happens after you flush the toilet, wash your clothes or take a shower. But if you had to remove this waste by tanker and treat it, this would cost you more than \$10,000 a year.

At Queensland Urban Utilities, we do the dirty work for you. We remove, treat and dispose of this waste all for less than \$1.50 a day.

# Oxley Creek Sewage Treatment Plant

Oxley Creek Sewage Treatment Plant at Rocklea is Brisbane's second largest sewage treatment plant, treating domestic sewage and trade waste from the southern and western regions of Brisbane. These suburbs include Oxley, Acacia Ridge, Salisbury, Indooroopilly, Chapel Hill and Graceville.

The plant became operational in 1969 and since then several new process units have been added to meet current and future demand.

## Flood recovery

The plant suffered \$32 million worth of damage in the 2011 floods, forcing part of the plant offline. As part of our rebuilding and taking future industrial and residential growth in the area into account, we are investing \$15 million to bring those facilities back online to cater for demand.

The plant is currently processing 53 million litres of sewage a day. Once the upgrade is complete, that will increase to 65 million litres – the equivalent of 26 Olympic sized swimming pools.

A range of flood proofing measures are being rolled out including raising electrical equipment, such as switchboards, 30cm higher than the 2011 flood peak. These flood mitigation measures reduce our insurance premiums, which help moderate water prices for our customers.

## CAMBI

The thermal hydrolysis plant by Cambi converts biosolids from five sewage treatment plants to produce green electricity and fertiliser.

The plant treats up to 95,000 tonnes of dewatered waste activated sludge and is the first thermal hydrolysis plant in the southern hemisphere.

# The treatment process

We manage and maintain 9000 kilometres of sewerage pipes that transfer waste to our 27 sewage treatment plants. Our treatment process converts domestic and industrial waste into clear effluent by removing organic and other solid material.

## STAGE 1 – Primary treatment

Our primary treatment methods include:

- separating liquids and solids such as paper, rags and other large objects through fine screens
- removing grit from the bottom of the aerated grit tanks
- removing solids from the bottom of sedimentation tanks
- removing oil and grease that floats to the top of tanks

## STAGE 2 – Secondary treatment

Settled sewage from the primary treatment still contains organic material and nutrients which is then removed by secondary treatment, using an activated sludge process. This includes:

- accelerating the decomposition of waste in an aerobic environment
- removing nutrients such as nitrogen and phosphorous
- converting nitrates to nitrogen gas which is released to the atmosphere

## STAGE 3 – Tertiary treatment

In tertiary treatment, the effluent undergoes a further process to make it suitable for reuse. This includes:

- filtering and disinfection before discharging the treated wastewater
- pumping the water at high pressure to remove molecules including bacteria, viruses and parasites for reuse

## STAGE 4 – Biosolids treatment and disposal

The biosolids, sometimes called sludge, that are removed during the treatment process, undergoes further treatment which produces biogas. The biosolids are then dewatered and transported for reuse on agricultural land.



## Don't flush that

Putting the wrong things down sinks, drains and toilets can contribute to blocked pipes on your property and in our network.

Many cleaning wipes, including the ones that are labelled 'flushable,' do not disintegrate quickly when flushed, contributing to blockages in sewage pipes. Other common problem items include cotton buds, hygiene products, dental floss, cooking fats and hair.

These items that end up in the sewer have to be removed by screening at our sewage treatment plants then washed, collected and trucked off to landfill – which is where they should go in the first place.

We remove a staggering 120 tonnes of wipes from our network every year. If the wipes were laid end-to-end they would stretch all the way from Brisbane to New Zealand.

So remember to keep it simple and only flush the three P's – pee, poo and paper.

 **To report a fault or emergency**  
Contact us 24/7 on **13 23 64**

 **For more information visit**  
[www.urbanutilities.com.au](http://www.urbanutilities.com.au)

 **General enquiries**  
From 7am-7pm weekdays **13 26 57**

