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What do I need to know about wastewater?

Why have different types of Wastewater Centres?

The type of Wastewater Centre and the quality of the effluent produced depend on many local factors. Some of these are:

- The size of the population.
- The opportunities for recycling water and the quality required.
- How much the community being serviced is prepared to pay.
- The requirements of the licensing authority.
- The age of the plant.

Wastewater from toilets, showers, laundries, kitchens, industries, institutions and commercial properties is collected via the underground pipe system (sewer) and transported to the Wastewater Centre where it is treated to a standard suitable for returning to the waterways or for reuse.

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What is wastewater treatment?

Wastewater treatment is a series of processes that remove pollutants from wastewater such as solids, organic matter, oil and grease, detergents, nutrients, heavy metals and bacteria. These processes are carried out at a Wastewater Centre.

The end products of the treatment are recycled water and biosolids.

What is the difference between influent and effluent?

A general name for the wastewater entering the Wastewater Centre is 'influent'. The general term for the clean water that leaves the Centre is 'effluent'.

What can cause the volume of wastewater to change?

The amount of wastewater that arrives at the wastewater centre varies according to the time of day – the flow peaks in the morning and again in the evening. Industry activities also cause variations to both the volume and quality of the wastewater.

The volume also increases with wet weather. This can occur when stormwater pipes are wrongly connected to the wastewater system or when the wastewater

pipes are old or damaged, then stormwater can infiltrate the system through the cracked or broken pipes. One of the main culprits is tree roots that invade the pipes in their search for water.

Most Wastewater Centres are designed to cope with Peak Wet Weather Flows (PWWF) of wastewater of about five times the Average Dry Weather Flow (ADWF). But in old wastewater systems inflow and infiltration in times of heavy rain may increase the flow tenfold or more and reduce the efficiency of the plant.

What is Ipswich Water's role in wastewater?

Ipswich Water manages approximately 1,140 km of wastewater system and 42,000 residential, commercial and industrial customers' wastewater connections. The estimated replacement value of these assets is \$319 million. It has been estimated that the total length of private underground house drains is in the order of 800 km.

Ipswich Water operates four Wastewater Centres, treating 11,630 megalitres of wastewater per year to high quality standards.

Reference: We all use water. Australian Water Association. 2002