Recycled Water



The Wamuran Irrigation Scheme will divert Class A recycled water from the Caboolture South Sewage Treatment Plant to farms in the Wamuran region, giving producers greater certainty for crop planting and enabling them to expand their operations.

What is sewage?

Sewage is the used water that leaves your home. It includes wastewater from sinks, showers, toilets, washing machines, and dishwashers. It is transported through the sewerage system (pipes and pumps) to a sewage treatment plant (STP).

How is sewage treated?

STPs treat wastewater before safely releasing it into the environment as effluent or by recycling it.

The treatment process involves multiple stages to remove contaminants and microorganisms.

Treatment stages include:

- **1. Primary treatment:** removal of solids including toilet paper, dirt and grit from the sewage entering the treatment plant.
- **2. Secondary treatment:** biological treatment of the water after primary treatment using helpful microorganisms to reduce the concentration of various chemicals within the sewage (including nutrients).
- **3. Tertiary treatment:** disinfection of the water to kill harmful microorganisms. Disinfection is usually completed by dosing the water with chlorine or ultraviolet light before it leaves the STP.

What is recycled water?

Recycled water is any wastewater from homes or industrial sites that is treated to improve its quality so it can be safely used for another purpose. Queensland Health regulates the use of recycled water with set guidelines for microbiological quality, and uses the Australian Guidelines for Water Recycling to ensure chemicals are at acceptable levels. This ensures the recycled water is safe for use.

Where does recycled water come from for Wamuran Irrigation Scheme?

Recycled water supplied to the Wamuran Irrigation Scheme is treated water from the Caboolture South STP.

Treated water that would usually be released to the Caboolture River will now undergo further treatment so it can be recycled and used for crop irrigation in the Wamuran region. This is also beneficial for the local environment as it reduces the nutrient discharge into the Caboolture River.

Does recycled water from this Scheme contain PFAS (per and polyfluoroalkyl substances)?

Low levels of PFAS are likely to be found in the recycled water from the Caboolture South STP, similar to most sewage treatment plants across Australia. These PFAS come from products used in local households. There are no large sources or contaminated sites in the area that contain these chemicals.

Unitywater undertakes extensive risk assessments to ensure that even these low levels of PFAS are within guidelines to prevent human health or ecological effects.

For more information about PFAS please refer to our <u>PFAS Fact Sheet</u> or visit www.pfas.gov.au







Is recycled water safe?

Recycled water is subject to strict standards to ensure it is of appropriate quality to protect human health and the environment. Recycled water must meet Queensland Health requirements and the requirements of the Australian Guidelines for Water Recycling.

For more information about Wamuran Irrigation Scheme go to www.unitywater.com/wamuran

How will PFAS be managed in recycled water?

There are no significant sources of PFAS in the catchment for Caboolture South STP sewage treatment plant.

It is expected that any PFAS will be at levels similar to most STPs across Australia. Studies show levels in the sewage coming into the Caboolture South STP are similar to those measured in urban surface waters – 0.01-0.05 µg/L. The treatment process removes a wide range of chemicals (e.g. cleaning products, personal care products, nutrients etc.), some PFAS as well as microorganisms that can cause illness.

This process is closely monitored by Unitywater.

The treated water is currently discharged as effluent to the Caboolture River. This irrigation scheme will repurpose some of that water to local agricultural farmers, and to do this, the water must comply with all relevant government guidelines.

Wamuran Irrigation Scheme Schematic





