

Water treatment

Released: 12 December 2017

Trade waste discharges from companies conducting water treatment have the potential to adversely affect the sewerage system. Used waters may contain organic matter, suspended solids, metals, acids and alkalis. Appropriate management practices at each site are necessary.

For the purpose of this guideline 'water treatment' refers to the treatment of any type of water including mains, bore, surface or industrial process water, which may include, but is not restricted to:

- softeners
- deionisers
- reverse osmosis and ultrafiltration
- flocculation/sedimentation
- filtration
- distillation
- disinfection

Key trade waste quality requirements

Parameter	Generally accepted level
Total dissolved solids	Dependant on the impact at receiving wastewater treatment plant
Chlorine	<5 mg/L
pH	Between 6-10 units
Suspended solids	<500 mg/L
Temperature	<38°C
Flow rate to sewer	Dependant on capacity of receiving sewer

Note: Discharge limits may be varied under certain circumstances for individual dischargers.

Typical pre-treatment

- Used waters containing suspended solids discharge to sewer via a 225mm silt trap, including a fixed secondary strainer with a maximum 2mm hole size or channel fitted with screens and an appropriately sized settling pit (minimum size 1000L).
- Where the pH of used waters is likely to be outside the set limits, an automatic pH adjustment system and safety shut off valve are installed. Where alternating acid and alkali batches are generated (e.g. mixed bed deionisers), used waters discharge to a buffering tank for co-neutralisation before final adjustment by the pH correction system. The tank is capable of containing the combined batch volumes of acids and alkalis.

- Where heavy metal concentrations in used waters exceed the [Restricted Wastewater Acceptance Standards](#) an approved metal precipitation and removal system is installed before discharging to sewer.
- Used waters, process liquors and sludge not permitted to be discharged to the sewer are contained in approved containers and/or blind tanks and disposed of by a licensed liquid waste contractor in accordance with the [Bunding and Blind Tank Guideline](#).
- All tanks and containers storing process liquors, used waters, pre-treatment equipment and chemical solutions stored on site are banded in accordance with the [Bunding and Blind Tanks Guideline](#).

More information

Mains Water Protection (AS/NZS 3500.1:2015)

[Backflow Prevention Requirements - Office of the Technical Regulator](#)