

Disposal of Groundwater from Buildings

Trade Waste Guideline No. 40

INTRODUCTION

Discharges to sewer of accumulated ground water from basements or other underground areas of buildings have the potential to adversely affect the sewerage system. The rate of discharge might exceed the capacity of receiving sewers leading to overflow of sewage to the environment. Discharges might contain contaminants in excess of acceptance standards.

For the purposes of this Guideline, 'groundwater' refers to naturally occurring underground water (also known as sub-surface water), but may include rain and surface water draining from vehicles entering an underground space in wet weather.

Unauthorised disposal to sewer of surface water contravenes Section 55 of the [Sewerage Act 1929](#) and unauthorised disposal to underground/sub-surface water to sewer is deemed to contravene Regulation 20(2)(i)(ii) of the [Sewerage Regulations 2011](#).

The preferred methods for disposal of groundwater accumulating in building basements and service pits can be obtained from the Environmental Protection authority (EPA).

However, where the contaminated ground or surface water would result in a detrimental impact on the environment and cannot be pre-treated to an acceptable standard, but is amenable to the sewage treatment process, sewer disposal might be approved subject to conditions in this Guideline. Should contaminant levels from a particular site drop in future to levels that make any of the preferred disposal methods viable, SA Water will no longer accept discharges to sewer from that site.

EXISTING DISCHARGES

SA Water will assess discharges of groundwater from installations in buildings in existence before 1st March 2009 as they become known to us. This assessment will determine whether further discharges should be accepted by SA Water. If so, the site operators must seek authorisation to discharge as required for new installations. In any event, a reasonable period of time will be allowed for remedial works to be completed in accordance with this Guideline.

NEW INSTALLATIONS

Application for discharge approval is made using a trade waste discharge application form. The following details must be included:

- Typical analysis results of groundwater contaminants
- Proposed discharge flow rate
- Proposed pre-treatment (if required)

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TYPICAL INSTALLATION REQUIREMENTS

- Pre-treatment device(s) (if required) to reduce contaminant level to an acceptable standard.
- Facility for the collection of a representative sample of discharge to sewer.
- A meter to record total volume discharged to sewer. This meter is to be accessible to Trade Waste Officers for taking readings at any reasonable time. The meter is constructed of material unaffected by the waste water contaminants.
- Effective control of flow to not exceed the permitted maximum discharge rate.
- Storage of separated contaminants, treatment chemicals and other unacceptable materials within a bunded compound to prevent their discharge to prevent their access to sewer.

TYPICAL OPERATION

- Operators may use batch treatment as per [Trade Waste Batch Treatment Guideline No. 17](#). A [Batch Treatment Waste Notification Form](#) is submitted to the Trade Waste Branch at least 24 hours prior to any disposal of waste water to sewer. This option provides maximum control.
- Continuous discharge may be considered if electronic sensors would effectively manage discharge quality on an ongoing basis (e.g. pH, conductivity, headspace gasses – as appropriate). In such arrangements, the sensor is linked to a controller capable of ceasing discharge if maximum thresholds are exceeded. However, all initial discharges are made on a batch basis. Provided analyses meet requirements on a consistent basis, continuous discharge will be approved. Once approved, the operator carries out regular sampling and analyses, with all results supplied to the Trade Waste Branch.
- Sampling, sample preservation and delivery for analysis are in accordance with specified protocols.
- All analyses are undertaken by an approved NATA registered laboratory.
- Flow rates to sewer are regulated to prevent sewer surcharging.
- Discharge to sewer complies at all times with [Standards of Acceptance of Liquid Waste to Sewer](#) or discharge limits determined by the Trade Waste Branch. Contaminant concentrations exceeding Acceptance limits undergo further treatment or disposal by a licensed liquid waste contractor.
- The Trade Waste Branch also undertakes random monitoring to verify performance.

FEES AND CHARGES

- The costs of sampling by Trade Waste Branch and subsequent analytical and administrative costs incurred by SA Water are borne by the operator.
- The cost of disposal to sewer of successfully treated groundwater is charged to the operator in accordance with the [current prescribed rates for hauled waste](#).
- Billing frequency is negotiated between the parties before commencement of the operation.
- Should the accounts rendered by SA Water to the operator fall into arrears at any time, SA Water may immediately suspend further discharges upon giving written notice to all parties involved.

ADDITIONAL INFORMATION

Mains Water Protection (AS/NZS3500-2003 Part 1), [Trade Waste Blind Tank Guideline No.3](#), [Trade Waste General Policy](#),

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