

Contaminated Stormwater Trade Waste Guideline No. 19

INTRODUCTION

Stormwater is specifically prohibited from discharge to sewer in the [Sewerage Act 1929](#), to prevent flooding of sewers. The discharge of contaminated stormwater to the environment is prohibited under the [Environment Protection Act 1993](#). Therefore, to protect both the environment and the sewerage system, suitable roofing and bunding is required so as to segregate the waste water and clean stormwater streams.

In **exceptional** circumstances where segregation is not practical, approval may be given by SA Water to direct contaminated stormwater from work areas to sewer in accordance with this Guideline.

DISPOSAL OPTION 1 – STORMWATER DIVERSION

Contaminated 'first flush' stormwater is treated, stored and discharged to sewer with the remainder to be directed to stormwater in accordance with [Environment Protection Authority](#) (EPA) requirements. This might include pre-treatment to achieve acceptable quality for release to the receiving watercourse.

DESIGN / INSTALLATION

- Contaminated areas are of minimum size, bunded and sealed to contain all contaminated water and exclude non-contaminated surface water.
- While there is no rainfall, normal washing activities can be undertaken. The collected waste water is pumped to an appropriate pre-treatment device and then discharged to sewer under conditions specified in the [Trade Waste Discharge Permit](#).
- When rainfall is detected by a rain gauge, water supply to the area and the outlet to sewer are automatically shut off. **Activities likely to introduce new contamination during rainfall events are not permitted.**
- The 'first flush' volume of stormwater (as specified by EPA), collected on the contaminated area is pre-treated and stored for release to sewer after the rainfall event.
- When a rainfall event exceeds the 'first flush' volume, further stormwater flow is automatically directed away from sewer to the stormwater drain. See Figure 1 for a typical layout.
- All waste water tanks, pre-treatment devices, treatment chemicals etc. are bunded in accordance with the [Trade Waste Bunding Guideline No. 4](#).

TYPICAL PRETREATMENT

All wash water and contaminated 'first flush' stormwater is directed to sewer via;

- Suitable device(s) to remove gross solids (e.g. silt trap and/or screen), then to a stormwater bypass/pump chamber.
- A float operated pump for transferring waste water to the pre-treatment device(s).
- Suitable pre-treatment device(s) (e.g. oil/grease/solids separator, settling tank) to achieve compliance with [Standards of Acceptance of Liquid Waste to Sewer](#).
- Treated waste water holding tank of sufficient capacity to hold the 'first flush'. A solenoid valve on the outlet, coupled to a control panel/rain gauge, opens once rainfall has stopped. This allows waste water to discharge at controlled flow rate and times.

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DISPOSAL OPTION 2 – TREATMENT AND SEWER DISPOSAL

Where it cannot be guaranteed that contamination is removed during the 'first flush', or residual contaminants cannot be pre-treated effectively after diversion to the stormwater system, all water collected in the contaminated area is directed to sewer in accordance with SA Water requirements.

DESIGN / INSTALLATION

As for Disposal Option 1 – Stormwater Diversion except;

- No bypass to stormwater system, all contaminated stormwater and process water contained.
- Contaminated water drains to a holding tank, pending treatment and discharge. The holding tank has sufficient buffering capacity to prevent environmental contamination from foreseeable rainfall events. Extra capacity is provided if trade waste activities might continue during rainfall events.
- Collected waste water is pumped from the holding tank via pre-treatment device(s) to sewer at times and flow rates specified in individual [Trade Waste Discharge Permits](#). See Figure 2 for a typical layout.

FEES AND CHARGES

An annual fee for discharge of stormwater to sewer will apply. A current fee [schedule](#) can be obtained from the Trade Waste Branch.

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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Figure 1: CONTAMINATED STORMWATER TREATMENT SYSTEM

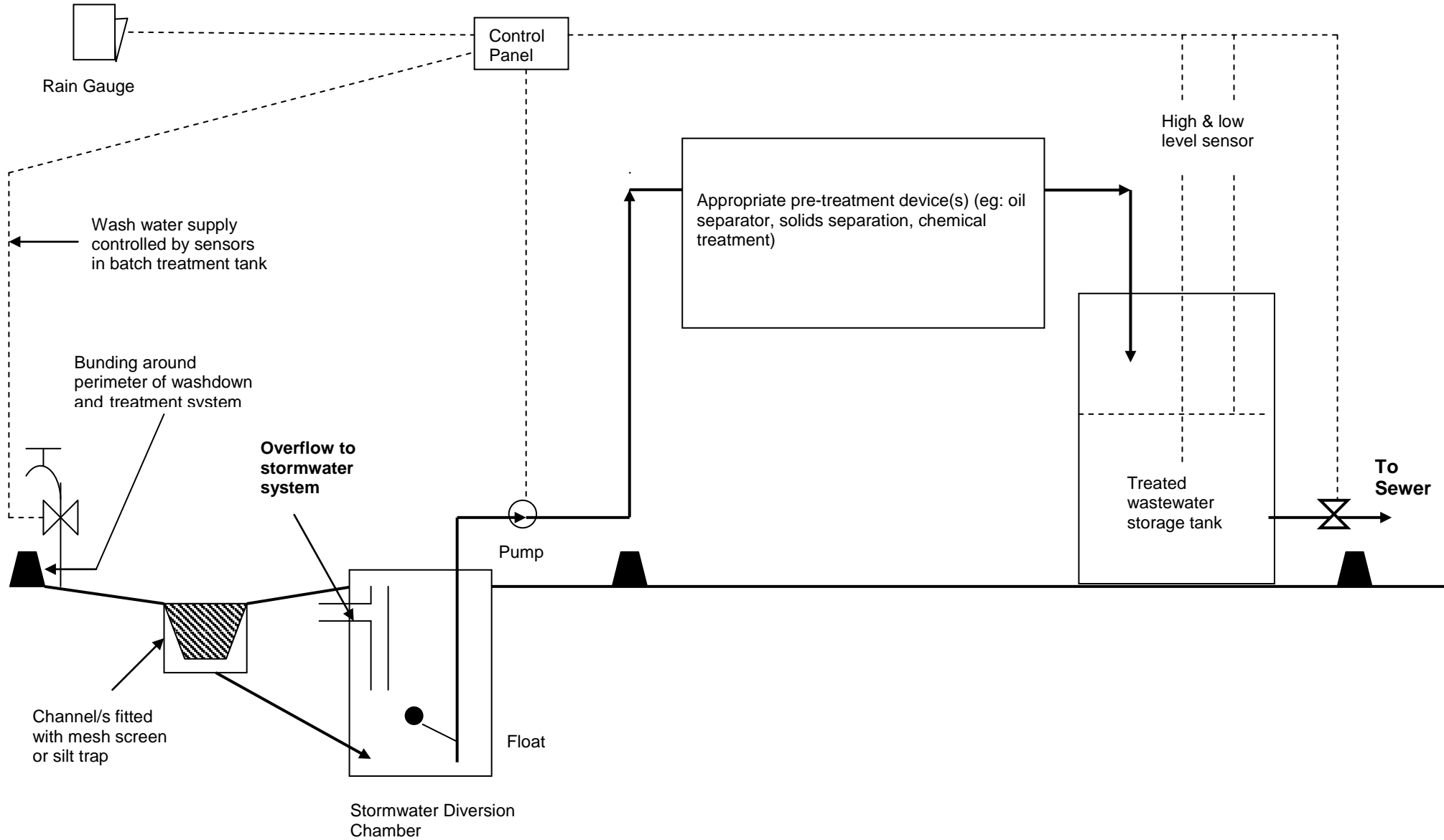
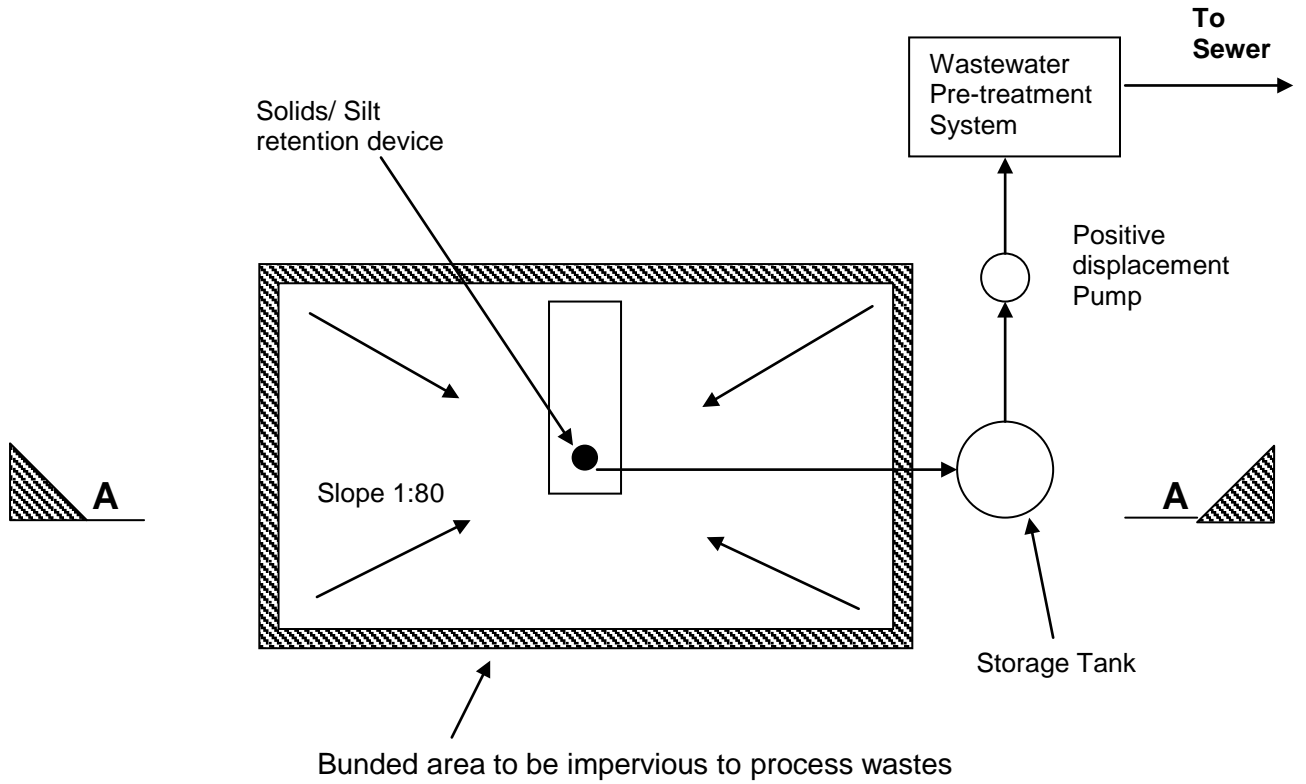


Figure 2: TREATMENT AND DISPOSAL

PLAN VIEW



SECTION (A – A) VIEW

