

Vehicle washing

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Trade waste discharges from vehicle washing businesses (i.e. mechanics, crash repairers, detailers, car washers, etc.) could harm the sewerage system. Appropriate management practices at each site are needed. This guideline outlines the areas of concern and available technologies for trade waste controls. For the purpose of this guideline 'vehicle washing' refers to the cleaning of any vehicle, vehicle parts and machinery with water or steam.

This guideline does NOT extend to degreasing operations that use high strength detergents or solvent formulations. Wastewater from those activities typically requires removal for off-site treatment or disposal, or more sophisticated on-site pre-treatment methods that are able to break down emulsions, adjust pH level etc.

Key trade waste quality requirements

Parameter	Generally accepted level
Oil/grease	≤100mg/L
Suspended solids	≤500 mg/L
Total dissolved solids	≤1500mg/L
pH	Between 6-10 units
Flow rate to sewer	Dependant on capacity of receiving sewers

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

Best practice management aspects

Only quick breaking detergents/degreasers are permitted in conjunction with those vehicle washing activities within the scope of the guideline. These detergents/degreasers temporarily emulsify oil/grease and suspend solids during cleaning, but release this material soon afterwards. This allows the final pre-treatment device to operate effectively.

Wastewaters and waste chemical solutions that are not permitted to be discharged to the sewer are contained in an approved blind tank and disposed of by a licensed liquid waste contractor in accordance with the [Bunding and Blind Tank Guideline](#).

Chemicals and other concentrates are stored as per the [Bunding and Blind Tank Guideline](#).

Typical wash bay requirements

- Vehicles are washed on a hardstand area with a minimum 1:80 grade for wash water drainage.

- Ingress of surface water is prevented by a reverse grade beyond the designated wash down area, or a perimeter hump, bund wall or similar barrier.
- To exclude stormwater and rainfall, all areas draining to sewer are roofed. The roof has a **minimum** overhang of 1 metre but at least one third of roof height is provided, to prevent the intrusion of wind driven rainfall. Where such an overhang is impractical, walls are used.
- Above ground pre-treatment equipment is located within a roofed wash bay bund, or separate approved roofed and banded area which drains to the pump sump or settling chamber.

Typical pre-treatment Requirements

- **To remove large solids (initial pre-treatment):** Wash water initially drains to a silt trap fitted with a bucket having nominal hole diameter or mesh size of 2mm, including a fixed secondary strainer with a maximum 2mm hole size.
- Where heavy loading of soil/mud or large solids is likely (such as washing of earth moving equipment, off-road vehicles, ride-on lawnmowers etc.), a graded channel fitted with weir(s) that retain rapidly settling solids and/or perforated screen(s) for holding large solids is placed before the silt trap. Channels should be sized for easy cleaning and have removable grates, screens or weirs. Maximum fall should be 1 in 80, to allow for settling of suspended solids. See *Figure 1*.
- **To remove suspended solids only (final pre-treatment):** Where oil/grease is less than 100 mg/L, (e.g. cleaning of road grime from body exterior) the silt trap drains to an approved suspended solids settling chamber (minimum size 1000 L), before discharge to sewer.
- **To remove suspended solids and where oil/grease exceeds 100 mg/L (final pre-treatment):** For example, when steam cleaning chassis or engine bays. The silt trap drains to a solids settling and pump sump of minimum 400 litres capacity. A positive displacement (non-emulsifying) pump conveys wastewater to an approved oil water separator (minimum 1000 L/h), before discharge to sewer. See *Figure 2*.

Maintenance

It is the responsibility of site management to ensure the effective operation of all pre-treatment equipment, by ongoing removal of accumulated material from channels, silt traps and coalescing plate packs, and timely removal of accumulated solids from settling pits by a licensed liquid waste contractor.

More information

Mains Water Protection (AS/NZS 3500.1:2015)

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

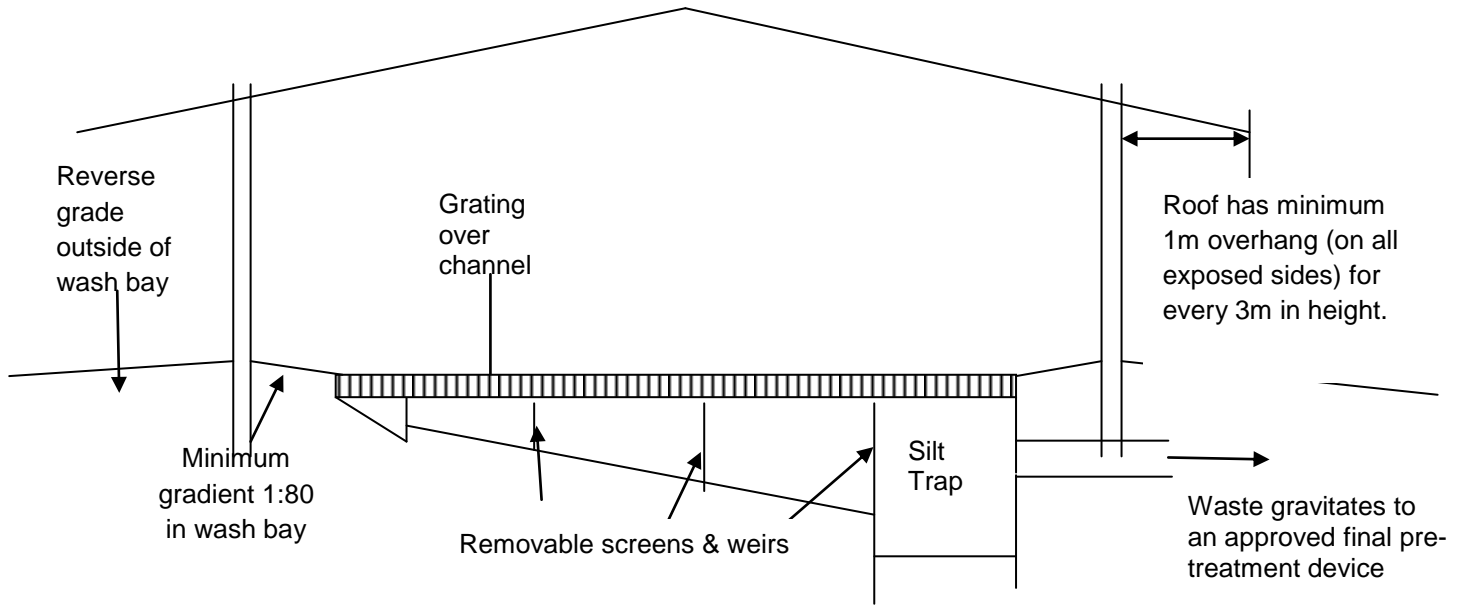
[Trade Waste Bunding and Blind Tanks Guideline](#)

[Approved Basic Trade Waste Pre-treatment Products](#)

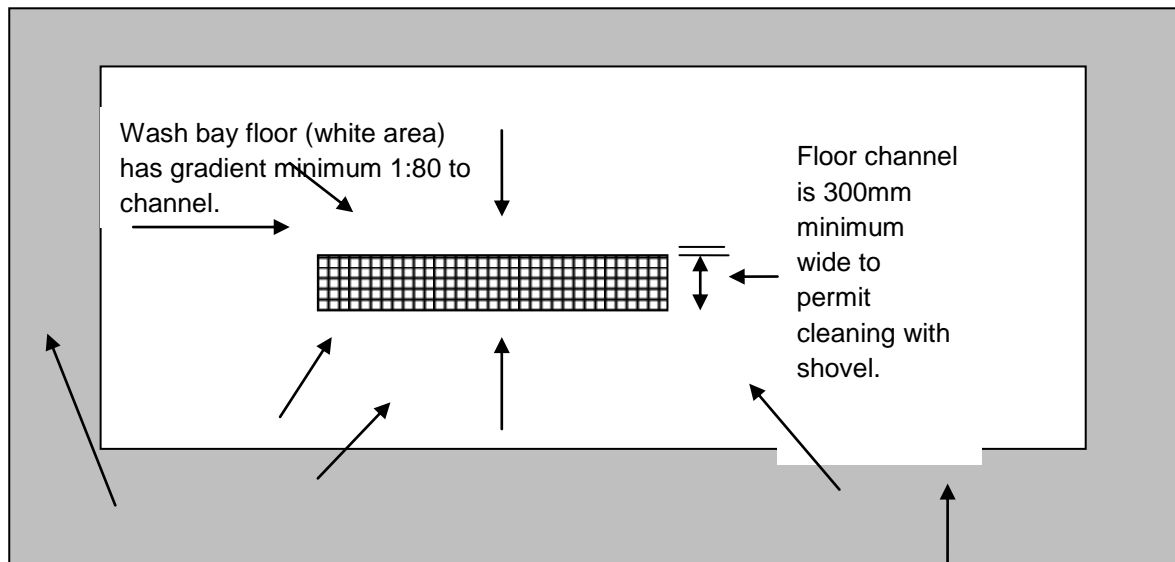
[Stormwater Management - EPA](#)

Figure 1: wash down area

SIDE ELEVATION



PLAN



3m in height. This is measured from the edge of the wash bay floor

Edge of wash bay floor – has reverse grade, perimeter hump or bund wall or similar barrier to prevent ingress of surface water.

Figure 2: pump sump and oil water separator

