



Miscellaneous technical note A

This technical note has been issued to provide clarification and advice about the following topics: 1 - Water Services Providers' conditions of connection and asset protection: 2 - Certification of plumbing work for reticulation cut-ins: 3 - Solvent welded traps: 4 - bin wash area/backflow hazard ratings.

Water Services Providers' conditions of connection

The Plumbers Licensing Act 1995 and the Plumbers Licensing and Plumbing Standards Regulations 2000 (the Regulations) set the regulatory requirements for the installation of plumbing work in WA. The Regulations call up the Plumbing Code of Australia as the plumbing standards which prescribe the National Plumbing and Drainage series, AS/NZS 3500:2021, parts 0, 1, 2 and 4 as deemed-to-satisfy provisions.

Conditions of connection for plumbing installations to be connected to a Water Services Providers' (WSP) infrastructure fall under the Water Services Act 2012 and the Water Services Regulations 2013. The Regulations supersede the Metropolitan Water Supply Sewerage and Drainage By-laws 1981 and other legislation relating to country areas. The conditions are designed to protect the water supply and sewerage infrastructure serving private building lots.

The following are examples from the Water Services Regulations 2013 that may affect plumbing installations:

- ▶ In relation to reticulation cut-ins, regulation 24(2) requires that, except in accordance with the approval of the WSP, no branch or fitting shall be connected to a property water supply connection within a distance of one (1) metre on the consumer's side of the water meter or the stop-cock.
- ▶ Regulation 49 (3) prohibits the use of food waste disposal units.
- ▶ Regulations 42 and 43 relate to protection of the WSP water supply and requirements for an owner or occupier to have backflow prevention devices installed and also tested at regular intervals.
- ▶ Regulation 44 requires approval of the water services provider to connect a pump directly to the property water supply connection.

- ▶ Regulation 51(1) states that if a licensed plumbing contractor becomes aware of a circumstance that is likely to result in the contamination of the water supply or likely to adversely affect the sewerage works of a licensee, the contractor must report that to the licensee as soon as practicable. This includes the entry of stormwater into a sewer as it is a prohibited discharge.

Other legislation

Other regulatory bodies exist that have Acts and Regulations or Codes setting additional requirements in relation to plumbing work. The table below is a list of Regulations in WA that may have requirements that are relevant to plumbing work.

Administering agency	Relevant legislation
Child care Department of Communities	Child Care Services Regulations 2006
Electrical installation Building and Energy	Electricity (Licensing) Regulations 1991
Gas Installations Building and Energy	Gas Standards (Gas-fitting and Consumer Gas) Regulations 1999
Health Department of Health	Health (Treatment of sewage and disposal of effluent and liquid waste) Regulations 1974. Caravan Parks and Camping Grounds Regulations 1997
Building Building and Energy	Building Services (Complaint Resolution and Administration) Regulations 2011

Irrigation/reticulation cut-ins compliance certificates

The installation of types B, C and D irrigation systems as set out in AS/NZS 3500.1:2021, section 7, currently require backflow protection on all occasions. Type B irrigation systems for domestic or residential buildings are considered a low hazard, Type C irrigation systems for commercial buildings a medium hazard and Type D irrigation systems where there is chemicals injected or siphoned into the system for either domestic or residential and commercial buildings is a high hazard.

This means that the cutting in of a tee piece, installation of an isolating valve and required backflow prevention device requires the submission of a notice of intention to commence major plumbing work at least 24 hours before the work is done. The completed certificate of compliance for major plumbing work must be submitted within five working days after the major plumbing work is completed.

AS/NZS 3500.1:2021, clause 4.6.2.1(d) does not allow backflow prevention devices to be buried in the ground. This means that those non-testable devices that are not required to be installed above the surrounding surface level (dual check valves) may be situated in a box below the surrounding surface. It should be noted that AS/NZS 3500.1:2021, clause 4.6.2.1(f) requires all in line devices to be installed with connections to permit the removal and replacement of the device. The box installed below ground must also accommodate this requirement.

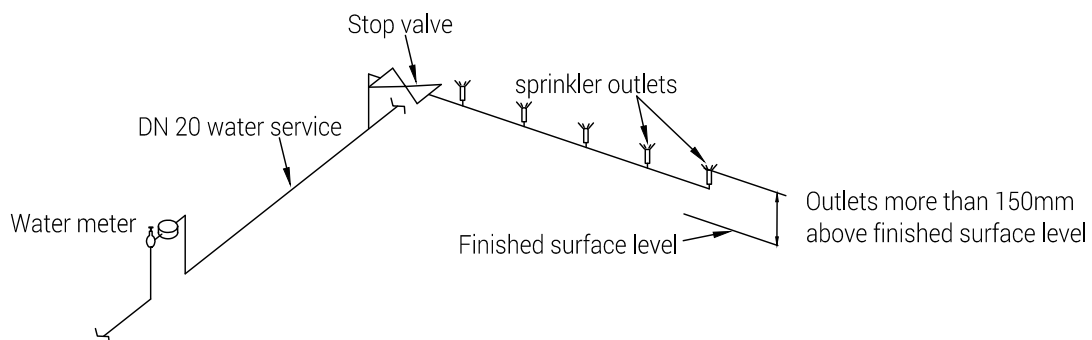


Diagram 1: Type A system domestic. No backflow device is required.

Solvent welded traps

When plumbing products are manufactured and sold for a specific purpose they are certified to an appropriate Australian Standard. In the case of 'P' and 'S' type traps, the applicable standards that apply are either AS/NZS 1260 - PVC-U pipes and fittings for drain, waste and vent application for PVC-U traps and AS 2887 - Plastic waste fittings for traps of other plastic materials (polypropylene).

These standards have certain criteria for trap dimensions and performance and therefore, traps shall not be fabricated using solvent welded or WaterMark approved fittings, for example 90° and 45° bends.

Solvent welded traps are manufactured and WaterMark certified to AS 2887, which is an acceptable Australian Standard. These traps are available in DN 40 and DN 50 and shall be used instead of fabricating traps using fittings.

Licensed plumbing contractors are reminded that the Regulations, under regulation 49(2), has the following limits that apply to fixture traps that are not accessible, for example under baths on the ground floor:

- ▶ Polypropylene traps with loose nuts and rubber seals (compression type traps) cannot be used.
- ▶ The fixture trap must be directly below the outlet of the fixture or appliance it serves.
- ▶ The fixture trap must not have a greater diameter than the outlet of the fixture that the trap serves.



Photo 1: Solvent welded traps are now available

Bin wash areas and backflow hazard ratings

When a hose tap is fitted within a bin storage area, it becomes by default a bin wash area. The table below shows the three types of building use that will determine the level of hazard and the three common types of backflow prevention devices suitable for low, medium and high hazards.

Building use and waste type	Rating of hazard	Typical backflow devices required
Bin wash area servicing an office block with predominately dry waste only	Low	Hose connection vacuum breaker (HCVB) or dual check valve (DUAL CV)
Bin wash area servicing residential/commercial buildings with predominately wet waste such as food scraps	Medium	Double check valve (DCV) Atmospheric vacuum breaker (back siphonage only)
Bin wash area servicing commercial premises associated with grease arrestors	High	Reduced pressure zone device (RPZD) Atmospheric vacuum breaker (back siphonage only)

Bin wash area connections to sanitary drainage

Bin wash areas linked to domestic or residential buildings shall discharge via a DN 100mm trade waste trap (TWT) and associated inspection opening immediately downstream of the TWT in the floor of the bin wash area connected directly to the main drain.

Bin wash areas linked to commercial or industrial buildings with no greasy waste/oil drum storage shall discharge via a trade waste sampling point (TWSP) and associated inspection opening immediately downstream of the TWSP in the floor of the bin wash area connected directly to the main drain.

Bin wash areas linked to commercial or industrial buildings with greasy waste/oil drum storage shall discharge via a TWT in the floor of the bin wash area to a grease arrestor and its TWSP. If this is not physically possible a TWSP in the floor of the bin wash area may discharge directly to the main drain.

Where the licensed plumbing contractor believes trade waste is involved, they should contact the trade waste section of the Water Corporation or for detailed information and typical trade waste product drawings at:

www.watercorporation.com.au/tradewaste

www.watercorporation.com.au/Help-and-advice/Trade-waste/Trade-waste-in-your-business/Typical-trade-waste-product-drawings

Working near Water Corporation assets

The Water Corporation has recently released information about works that are close to or involve their assets. licensed plumbing contractors should familiarise themselves with this new process that not only protects the asset but covers OSH requirements. Further information is available on the link below:

www.watercorporation.com.au/Developing-and-building/Working-near-assets/Process-for-working-near-our-assets

Notes

The technical note series is issued by the Plumbers Licensing Board to assist the plumbing industry to comply with the Plumbers Licensing and Plumbing Standards Regulations 2000 (the Regulations) applicable to plumbing work in Western Australia.

Each technical note is to be read in conjunction with Part 6 of the Regulations that currently adopt the Plumbing Code of Australia (PCA) and the deemed to satisfy provisions of AS/NZS 3500:2021, parts 0, 1, 2 and 4 but modified in certain matters to suit the State's building approach and other local conditions.

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