

Technical Solution Sheet 8.03

8: Backflow Prevention (Medium & high risk only)

Duplicate solution of 5.12, 91.01

Transported Recycled Water for Irrigation and Commercial Car Washing

AIM

The aim of this technical solution is to provide information for plumbers installing and altering cold water and recycled water plumbing systems for irrigation and commercial car washing.

PLUMBING REGULATIONS 2008

The *Plumbing Code of Australia* (PCA) is adopted by and forms part of the *Plumbing Regulations 2008*. Part B1 of the PCA specifies the objectives and performance requirements related to the installation of cold water services. Part B3 of the PCA specifies the objectives and performance requirements related to the installation of non- drinking water services. *AS/NZS 3500.1: Plumbing and drainage Part 1: Water services*, is a “deemed to satisfy” document listed in Parts B1 and B3 of the PCA and contains sections on “Cross connection control and backflow prevention” and “Non-drinking water services”.

BACKGROUND

When water restrictions prohibit the use of mains water for lawn watering and irrigation, councils and facility managers are faced with the problems of providing safe and adequate recreational facilities and maintaining historic parks and gardens.

One option is to have temporary or permanent tanks installed in selected locations to enable unrestricted irrigation of recreational facilities, historic parks and gardens, using Class 'A or B' recycled water from a treatment plant.

Similarly, Class A recycled water is being used in commercial car washing facilities. This water is delivered to site by a tanker and replenished as required.

The examples shown in Figure 1 and 2 are typical examples during periods of drought of the use of recycled and alternative non-drinking water. During these conditions plumbers who are involved in projects of a similar nature to the examples shown are encouraged to contact the Victorian Building Authority on Tel: 1300 815 127 for advice and technical assistance.

Plumbers are also reminded of the need to positively confirm that stored recycled water has been separated from all drinking water sources and that all cross connections are eliminated.

Examples being hose bibs or drinking fountains at sports grounds, sanitary fixtures at sports ground change rooms or commercial nurseries, and farms with both drinking and non-drinking supplies.

IRRIGATION SYSTEM

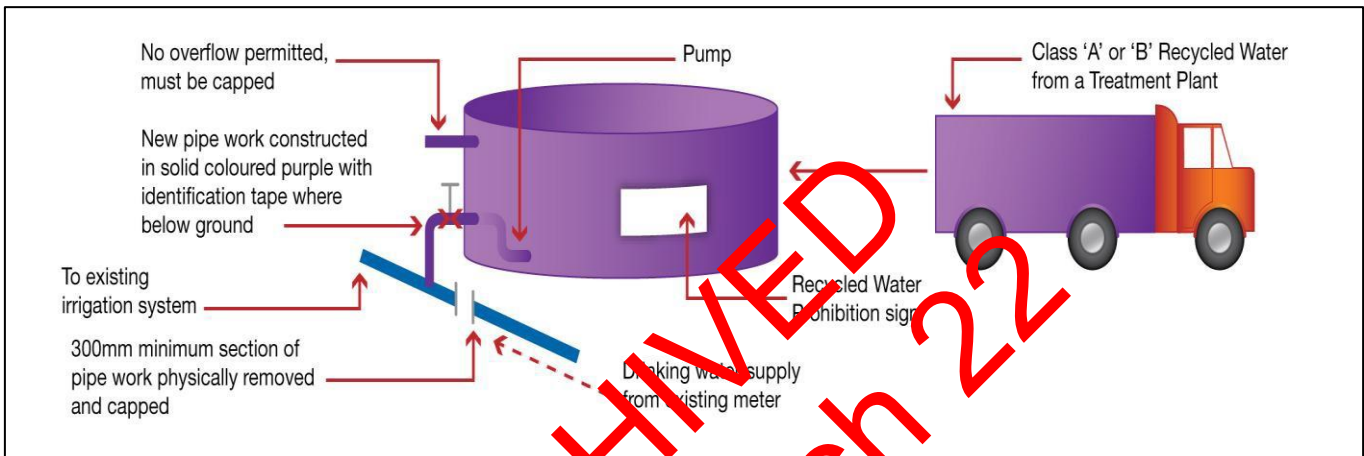
Figure 1 shows the requirements for a tanker filling an on-site tank (either above or below ground) designed for storing recycled water for irrigation purposes. Note that the existing drinking water supply has been physically disconnected and capped to prevent any cross connection, and overflow from the tank is not permitted. The overflow must be capped or omitted.

COMMERCIAL CAR WASHING PREMISES

Figure 2 shows the requirements for a tanker filling an on-site tank (either above or below ground) designed for storing Class A recycled water at commercial car washing facilities.

If storing Class A recycled water for periods longer than 24 hours, it is recommended that ongoing chlorination be considered, or other measures put in place by the owner, occupier or operator of the facility to manage the quality of the water.

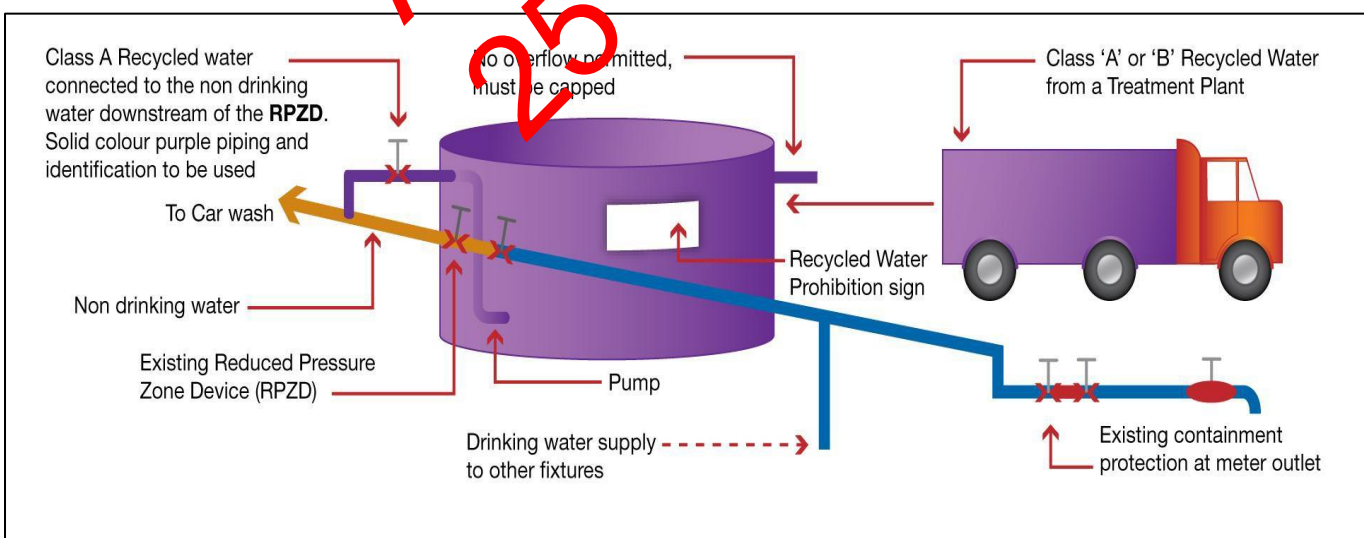
FIGURE 1 - ON SITE TANKER FILLING OF RECYCLED WATER FOR IRRIGATION PURPOSES



Note:

The recycled water is connected to pipe work which was previously designated for drinking water. Therefore actual physical disconnection is required.

FIGURE 2 - ON SITE TANKER FILLING OF RECYCLED WATER FOR COMMERCIAL CAR WASHING



Note:

The Class A recycled water is connected downstream of the RPZD to the already designated non-drinking water pipework.