

Guidelines for drinking (potable) water transport in Victoria

Water carters need to provide consumers with drinking water that is safe and suitable for human consumption, as set out by the *Food Act 1984* (Vic).

Your legal responsibilities

If you transport and sell drinking water, you have both a legal obligation and a duty of care to ensure the supplied water is protected from contamination during loading, transportation and delivery.

A water transport vehicle is defined as a food transport vehicle under the Food Act and does not need to be registered with your local council. However, an environmental health officer from your local council or a Department of Human Services' authorised officer has the right to inspect the vehicle at any time, take samples, and request evidence that the water is both safe and suitable.

Apart from any civil action arising from the sale of unsafe water, there are substantial penalties under the Food Act of up to \$100,000 for an individual and \$500,000 for a corporation in cases where the Act's requirements are not met.

Drinking water is defined as food under the *Food Act 1984*, and 'potable' means water that is safe for human consumption, food preparation and ice making.

How to ensure the water you sell is safe

Your water carting business needs to take the following steps to ensure the water you sell is safe for human consumption:

- obtain your water from an approved supply or supply point
- use the right kind of water transport vehicle
- clean and sanitise your water transport vehicle appropriately

In addition, you need to:

- keep a logbook
- deal with emergency situations

Obtain your water from an approved supply or supply point

The drinking water your business sells must be obtained from a supply or supply point approved by a Victorian water authority. Most water authorities require water carters to register with them before obtaining water from the potable water supply system. Please contact the water authority in your area to find out what requirements they have (see page 4 for a list of Victorian water authorities).

If you have doubts about the quality of any water source or water to be transported and delivered to the customer, then you should seek advice from your local water authority.

Key points for water carters

- A water transport vehicle is defined as a food transport vehicle under the *Food Act 1984*.
- Water for drinking must never be taken directly from a source other than an approved supply or supply point.

Water transport vehicles, containers and fittings used to cart drinking water **must not** be used for carting reclaimed water, toxic or hazardous chemicals, non-food liquids, or human or animal wastes. Vehicles used to cart consumable liquids, such as unpasteurised milk, should be thoroughly cleaned and sanitised before being used to transport drinking water.

Water carters must have clearly labelled separate vehicles for drinking and non-drinking water. Non-drinking water vehicles should not be used to cart drinking water.

Use the right kind of water transport vehicle

A water transport vehicle must be appropriately designed and constructed so as to prevent possible water contamination and enable effective cleaning.

If the vehicle was used for another purpose before carting water, you should take that prior use into account as it may pose a risk to the water.

The vehicle should:

- be constructed of suitable material, such as food grade plastic, stainless steel, fibreglass, aluminium or coated mild steel
- have surfaces (those that come into contact with the water) made of a material that will not contaminate the water, as per the requirements of Australian Standard (AS) 4020:2005
- be fitted with water hoses that are suitable for contact with drinking water and allow easy cleaning, as detailed in AS 4020:2005
- be fitted with appropriate backflow prevention mechanisms to protect against contamination or cross-contamination when water is being transferred to or from the vehicle, as detailed in AS 3500.1:2003. The backflow mechanism must be certified on an annual basis in accordance with AS 3500.1:2003
- be able to be fully drained
- have a sufficient opening for inspection and cleaning of the contact surfaces
- tank be securely mounted to the vehicle
- be maintained in a good state of repair
- have signs installed on each side and rear of the tank that read **‘Drinking Water’** in letters at least 100mm high.

During transit and delivery, all pipes and equipment must be secured and stored in a safe and hygienic manner to prevent them from contamination.

Clean and sanitise your water transport vehicle appropriately

As required under the Food Act, the water vehicle’s tank/container must be maintained in a clean and sanitary condition, together with all contact surfaces including the lining of the tank, openings, lids, seals, fittings and pipes.

The cleaning process involves the removal of dirt from the surface, followed by sanitising to reduce the number of disease-causing microorganisms.

All tanks must be cleaned at least every three months by:

1. Physically cleaning the tank/container with detergent and flushing with drinking water.
2. Sanitising by:
 - spraying a solution containing 10 mg/L available chlorine onto the surface, leaving for five minutes and rinsing with drinking water, or
 - filling the tank for at least 30 minutes with drinking water containing at least 5 mg/L of available chlorine—then draining and rinsing the tank with drinking water.

If a vehicle has not been used for some time, it will need to be cleaned and sanitised before it is suitable for carting drinking water. Vehicles not being used should be drained, air dried and the inspection hatch left partly open.

You can sell the water used for sanitising your tank/container for uses other than human consumption, such as road construction and park irrigation. If you

intend to discard the water, it must be discharged to an approved sewer point.

All pipes and fittings should be cleaned in a solution containing at least 5 mg/L of available chlorine. Pipes and fittings must be cleaned at least once a month by:

1. Physically cleaning the pipes and fittings with detergent and flushing with drinking water.
2. Sanitising the pipes by filling for at least 30 minutes with water containing at least 5 mg/L of available chlorine.
3. Soaking the fittings in warm water containing at least 5 mg/L of available chlorine for at least five minutes.
4. Rinsing pipes and fittings with drinking water.
5. Draining and air drying.
6. Store the pipes and fittings in a manner that protects them from contamination, such as caps or plugs at the ends of the pipes.

To achieve a residual of 5 mg/L and 10 mg/L of available chlorine in water, refer to the table below.

You can buy liquid household bleach at a supermarket or hardware store. Check the product has at least 4% available chlorine and has no additives such as fragrances or detergents.

All chlorine products need to be replaced on a regular basis due chlorine activity declining over time. Be careful when handling 65% available chlorine and always follow the manufacturer’s handling and storage instructions.

Volume of water	4% available chlorine (household bleach) (mL)		12.5% available chlorine (mL)		65% available chlorine (swimming pool chlorine) (teaspoon)	
	5 mg/L	10 mg/L	5mg/L	10 mg/L	5mg/L	10 mg/L
5 litres	0.63	1.25	N/A	N/A	N/A	N/A
1,000 litres	125	250	40	80	2	8
5,000 litres	625	1.25 L	200	400	8	16
10,000 litres	1.25 L	2.5 L	400	800	16	32

It is important to mix the chlorine in a plastic bucket in the open air before adding it to the tank. Always add chlorine to water, never water to chlorine and use appropriate protective equipment including gloves and goggles.

If entry into a water container or tank is required for cleaning purposes, you should be aware of any occupational health and safety requirements (see the Occupational Safety and Health Regulations 1996).

Keep a logbook

To satisfy your civil responsibilities, each water transport vehicle must carry a logbook. You must retain this logbook for at least 12 months following the last entry and on request, provide it to your local council's environmental health officer or a Department of Human Services authorised officer.

The logbook must record the details of each consignment and when the vehicle was last cleaned and sanitised, including:

- transport date, time, driver and name of water carting business
- location of water source
- delivery address
- amount of water delivered
- any comments relating to the delivery
- date the tank and fittings were cleaned and sanitised.
- method and chemicals used to clean and sanitise the vehicle.

Deal with emergency situations

In cases of emergency only, non-drinking water may need to be transported. If you need to cart non-drinking water, seek advice from your local council.

If you cart non-drinking water in this situation, afterwards you must clean and sanitise the vehicle's tank/container. As discussed, you can do this by filling the tank for at least 30 minutes with drinking water containing at least 5 mg/L of available chlorine.

Glossary of terms

Disinfection

The process designed to kill most microorganisms in water, including disease-causing bacteria. There are several ways to disinfect water, although chlorine is used most frequently.

Potable water

Water that is acceptable for human consumption.

Sanitising

To apply heat or chemicals to a surface so that the number of microorganisms on the surface is reduced to a level that:

- does not compromise the safety of food that it may come into contact with
- does not permit the transmission of infectious disease.

Contacts for additional information

For enquiries about emergency water treatment:

Environmental health officer

Your local council (refer to your telephone directory for details)

Department of Human Services

Environmental Health Unit

Telephone 1300 761 874

www.health.vic.gov.au

Regional offices

Regional environmental health officer or public health officer

Barwon/South West (03) 5226 4540

Grampians/Western (03) 5333 6669

Gippsland (03) 5177 2500

Hume/North East (03) 5722 0555

Loddon Mallee/North West (03) 5434 5555

North West Metropolitan (03) 9412 5333

(03) 9275 7000

Eastern Metropolitan (03) 9843 6000

Southern Metropolitan (03) 9213 2111

For information on safe work practices:

WorkSafe Victoria

Telephone 1800 136 089

www.worksafe.vic.gov.au

References

The Australian Drinking Water Guidelines 2004

www.nhmrc.gov.au/publications/synopses/eh19syn.htm

FSANZ, Food Safety Standard 3.2.3

www.foodstandards.gov.au

Australian Standards and Australian Technical Specifications

www.standards.com.au

Water authorities

Barwon Water

www.barwonwater.vic.gov.au

Central Highlands Water

www.chw.net.au

City West Water

www.citywest.com.au

Coliban Water

www.coliban.com.au

East Gippsland Water

www.egwater.vic.gov.au

Falls Creek Alpine Resort Management Board

www.fallscreek.com.au

Gippsland Water

www.gippslandwater.com.au

Goulburn–Murray Rural Water

www.g-mwater.com.au

Goulburn Valley Water

www.gvwater.vic.gov.au

Grampians Wimmera Mallee Water

www.gwmwater.org.au

Lake Mountain Alpine Resort Management Board

www.lakemountainresort.com.au

Lower Murray Water

www.lmw.vic.gov.au

Melbourne Water

www.melbournewater.com.au

Mount Baw Baw Alpine Resort Management Board

www.mountbawbaw.com.au

Mount Buller Alpine Resort Management Board

www.mtbuller.com.au

Mount Hotham Alpine Resort Management Board

www.mthotham.com.au

North East Water

www.nerwa.vic.gov.au

Parks Victoria

www.parkweb.vic.gov.au

South East Water

www.southeastwater.com.au

South Gippsland Water

www.sgwater.com.au

Southern Rural Water

www.srw.com.au

Wannon Water

www.wannonwater.com.au

Western Water

www.westernwater.com.au

Westernport Water

www.westernportwater.com.au

Yarra Valley Water

www.yvw.com.au

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