

Water carting guide for councils

This guide outlines information about water carting and when it might be a viable option for a town's water supply.

What is water carting?

Water carting or water tankering is the use of appropriately registered vehicles to transport water from one location to another.

Water carters are vehicles that are registered to draw, transport and deliver water. The water accessed by water carters can be of varying quality and may be used for different purposes, such as drinking water for private homes that are not connected to a reticulated supply or recycled water for dust suppression on construction sites.

Why consider water carting?

During extremely dry weather, the 'usual' water supplies that feed a reticulated town water system may have significantly reduced volumes and contingency or emergency water supply is needed, such as water carting.

Carting water from alternate supply locations could be:

- treated water – delivered directly into the town water reservoir, or
- raw water – delivered into the local dam or weir to be treated in the town's water treatment plant.

Is water carting a viable option for my community?

To determine if water carting is a physically viable option for your community, you should consider the following:

- The size of your community (see examples below for more on this).
- The distance to the alternate water supply (see examples below for more on this).
- Possible impacts on other communities. The capacity of the alternate water supply source should be sufficient to support the additional demand of your community without unacceptably compromising supply to another. To assess this consider:
 - the volume of water authorised to be taken from the alternate supply compared to the average volume taken
 - the availability of 'wet' water in the system, including the priority of water, recent announced allocations/entitlements, cut-off rules and water sharing arrangements.
- If treated water is potentially available, the capacity of the water treatment plant producing the water, its current average operating duty and the volume of treated water storage associated with the water treatment plant.
- The established restrictions framework in both the town receiving the water and the town donating the water, and the confidence that restricted demand can be achieved in one or both communities. As a guide, 50-70 L/p/d is considered the minimum required for basic household/residential water use. Additional water would need to be supplied to provide for liveability within each household, as well as for the provision of services and business and to maintain industry in the community.
- The size/capacity and number of tankers available in the area that are registered to transport drinking water, although this is likely to be readily managed by bringing in tankers from elsewhere.

Financial viability is a separate consideration to physical viability. It will be determined by each water service provider given their specific circumstances.

What would a viable scenario look like?

As a guide, Table 1 provides a range of scenarios that might be considered physically viable, based on the assumption that all the matters described earlier can be resolved (such as water entitlements and 'wet' water availability).

Table 1: Scenarios for understanding water carting options

Connected population	Demand*		Distance to supply (km)	Tanker volume (kL)	Number of tankers	Operating time (hrs/d/tanker)
	(L/p/d)	(ML/month)				
500	200	3	100	10	2	15
2000	150	9	150	30	5	12
4000	165	20	150	30	8	14
5000	200	30	100	30	7	16
10 000	140	42	50	30	6	16

Notes: * Raw or treated volume

Promoting Waterwise behaviours

Community awareness about using water wisely can drive water efficiencies, reducing water demand. We have developed resources to assist councils educate communities about efficient water behaviour. These include gardening tips, information on detecting leaks, and a home waterwise audit. Waterwise resources are also available to help students learn about water and living sustainably.

You can find these resources at www.qld.gov.au, search 'waterwise.'



More information

If you would like assistance with your drought planning, or if you have questions about our activities assisting water supply security planning, please contact the Urban Water Supply Planning group at UrbanWaterSupply@rdmw.qld.gov.au.