

NCC water efficiency consultation document November 2023.

The ABCB Office seeks input from industry and interested stakeholders on proposed changes to the water efficiency requirements in NCC Volume Three.

Background

NCC Volume Three, the Plumbing Code of Australia (PCA), has mandated minimum water efficiency standards since 2015.

Water efficiency in fixtures and fittings has improved significantly since the PCA set its original requirements in 2015. It is now opportune to review the water efficiency requirements in the PCA to identify if further reductions in flow rates would provide additional benefit.

More stringent water efficiency requirements already exist in Western Australia and Queensland. NCC 2022 Volume Three supports variations to the national requirement.

Reduced drinking water usage will provide several principal benefits: to the environment through less draw-down of limited water resources, to water utility operators through reduced water / infrastructure demand, and to customers through reduced water use and therefore financial savings.

Why seek industry consultation?

Initial review of an industry-based Proposal for Change (PfC) to the NCC by the ABCB Plumbing Code Committee has resulted in a recommendation that wider industry/stakeholder consultation be undertaken prior any decision being made on this issue.

Consultation will identify if industry supports the introduction of more stringent drinking water efficiency requirements. It may also identify any unintended consequences from these changes and identify any alternative options to the proposed changes.

What drives this project?

The impact of climate change on drinking water supply security is an important consideration for most Australians. Local government and water network utility operators have different strategies to address drinking water supply security, with desalination of seawater and recycling of water emerging as large-scale solutions to meet a drying and/or variable climate. These climate-independent solutions require significant capital investment and several years of planning, investigation, and procurement to implement.

Water restrictions also play a role in reducing drinking water usage to preserve supply. They are effective in that they are systemic (applying to all) and are supported by legislation. However, they can result in loss of amenity for consumers and may impose consequential impacts on businesses related to gardens and irrigation, and reputational impacts for water network utility operators.

A common theme among water network utility operators is to promote water efficiency to make the most of existing drinking water resources. One way this is achieved is through communications and

marketing which have a wide reach. However, measuring the impact on behavioural change and consequential demand reduction is difficult.

Another strategy to reduce drinking water usage is to run water efficiency programs and cash back offers to replace inefficient sanitary plumbing fixtures and fittings. These initiatives are typically targeted at certain customer groups or dwelling types and have a limited reach and limited water efficiency impact at a whole of utility scale.

One of the most effective ways to implement water efficiency is through mandating minimum requirements in building standards. This is a systematic approach applying to all new (and renovated) properties.

Anecdotally, in the early years after water efficiency standards are increased, the incremental reduction in water use may be modest. However, in a decade when, for example, a million dwellings are added Australia-wide, greater water efficiency would equate to water utilities supplying tens of gigalitres less per year compared to the current provisions.

Under this strategy, the consumer funds the purchase of the water efficient fixtures and fittings as each new home is built or renovated, in contrast to the network utility operator funding and delivering a targeted fixture replacement program.

The incremental cost to the consumer of the higher water efficiency fixtures and fittings is negligible over their current cost. The consumer receives the financial benefit of lower water use and associated energy savings, and the water network utility operator receives the benefit of customers using water efficiently.

The proposal

The objective of the proposal is to consolidate and improve drinking water efficiency standards for sanitary fixtures within NCC Volume Three (the PCA).

The proposed changes to the PCA are limited to Residential Buildings Class 1 and 2 which comprise around 80% of drinking water demand:

- Shower roses – must be minimum WELS 4 Star rated with a flow rate not more than 7.5 litres per minute. **Current requirement is WELS 3 Star rated with a flow rate of not more than 9 litres/minute.**
- Taps for bathroom basin and kitchen sink – must be minimum WELS 5 Star rated with a flow rate of no more than 6 litres per minute. **Current requirement is WELS 3 Star rated with a flow rate of not more than 9 litres/minute.**
- Dual flush cistern – must be minimum WELS 4 star rated with a volume of 4.5 and 3.0 litres. **Current requirement allows either a WELS 4 Star rated 4.5/3.0 litres per flush or a WELS 3 Star rated 6.0/3.5 litres per flush.**

Western Australia has required the proposed minimum flow rates since 2008.

The proposed changes exclude Building Classes 3 to 9, i.e., non-residential and commercial buildings, such as hospitals, schools, hotels etc., that are more at risk of waste plumbing blockage through use of macerators, misuse, vandalism etc. The proposed changes do not apply to existing flow requirements currently specified in the PCA for these classes of buildings.

Providing input

The ABCB welcomes your comments on the proposed changes. Your comments will be considered in the decision-making process.

Any proposed changes to the NCC provisions will be subject to public comment prior to being included in NCC Volume Three 2028.

Submissions will be accepted in the ABCB consultation hub form until 5pm on 31 January 2024.