

Draft Submission

National Health and Medical Research Council Australian Drinking Water Guidelines:

Draft framework on microbial health based targets

November 2016

Opening

Local Government NSW (LGNSW) is the peak body for the local government sector in NSW, representing NSW general-purpose councils, associate members including special-purpose county councils, and the NSW Aboriginal Land Council. LGNSW is the organisation for all things local government in NSW. LGNSW facilitates the development of an effective community based system of local government in the State.

LGNSW thanks the National Health and Medical Research Council (NHMRC) for the opportunity to make a submission on its proposal to include in the *Australian Drinking Water Guidelines 2011* (ADWG) a microbial health based targets regime.

Local government in NSW plays an important role in water management and in the provision of water services to the community. In regional NSW, more than 90 council-owned and operated local water utilities provide water supply and sewerage services to 1.8 million people. Local water utilities generate over \$1.2 billion in annual revenue and hold total water supply and sewerage assets valued at around \$26 billion.¹

Local water utilities provide safe drinking water. All local water utilities meet the microbiological targets of the ADWG and all local water utilities have now prepared and are implementing drinking water quality management systems in accordance with the risk based framework required under the *Public Health Act (NSW) 2010* and the ADWG.

In 2012/13, 2013/14 and 2014/15, the drinking water supply for 99.9% of the urban population in regional NSW complied with the ADWG for both microbiological and chemical water quality. In 2013/14 and 2014/15, all local water utilities complied with the microbiological targets of the ADWG (benchmark of 98% of samples to be E.Coli free); with 99.8% of 20,200 samples tested in 2013/14 and 99.9% of the 19,400 samples tested in 2014/15 complying.

Comments

A microbial health based targets regime for drinking water supplies represents a risk based approach to managing drinking water quality aimed at achieving a tolerable (very low) health risk, expressed as a “burden of disease” indicator, from the consumption of treated drinking water. The regime is based on a comprehensive risk assessment of the water supply source and its catchment, and implementation of water treatment processes that reduce the assessed risk to the required “burden of disease” target.

LGNSW understands that the NHMRC proposes to include into the ADWG a microbial health based targets regime for drinking water supplies and require the target to be 10^{-6} Disability Adjusted Life Years per person per year.

Local water utilities would be subject to the proposed regime by way of the requirement of the *Public Health Act (NSW) 2010* for local water utilities to have in place drinking water quality management systems in accordance with the ADWG.

LGNSW has significant concerns over the proposal in its current form and therefore does not support it.

Lack of cost-benefit analysis and funding plan

LGNSW is concerned that impacts/costs of the proposed regime have not yet been taken into account and compared to any potential health benefits.

¹ NSW Auditor-General, Country Towns Water Supply and Sewerage Program - Performance Audit, (2015), page 2.

The proposed microbial health based targets regime would have significant operational, technical, regulatory and associated financial impacts on local water utilities in regional NSW. It would require the implementation of complex and costly processes to monitor and carry out regular sanitary surveys of raw water catchments to identify the sources of microbial risk and complete vulnerability assessments and risk profiles of catchments based on these surveys. The implementation of water treatment processes needed to address the assessed risk and meet the proposed health based targets is likely to increase operational costs and require significant capital expenditure to upgrade treatment infrastructure. Experts from NSW Government agencies estimate that the capital investment alone required in regional NSW could be up to \$1 billion.

The consultation material provided by the NHMRC does not specify the value of expected health benefits, nor does it consider the potentially significant implementation costs or other related costs, such as costs associated with detrimental health outcomes related to the resultant lack of funding for the expansion of services to communities currently without a reticulated water supply or the abandonment of smaller potable supply systems due to their inability to meet the requirements of the new regime.

LGNSW requests that a comprehensive cost-benefit analysis be undertaken before the proposal is considered any further. Such an analysis is necessary to ascertain whether the proposed regime ultimately provides net benefits to society in general, and regional NSW in particular, and compares favourably with other potential beneficial action, health related or otherwise (e.g. providing better quality of, and access to, health services in regional NSW).

Furthermore, the proposal does not consider how any expenditure required as a result of the introduction of the proposed regime would be funded. Communities in regional NSW are unlikely to be able to afford or be willing to pay for the enormous infrastructure investment that would be required to achieve vague health benefits.

Without the provision of a comprehensive cost-benefit analysis and clarity on how expenditure requirements would be met, LGNSW is not in a position to support the proposed regime.

Inadequate catchment categories

LGNSW is also concerned that the proposed catchment risk categories do not consider adequately the characteristics and associated risk profiles of many drinking water supply systems in regional and rural areas of NSW.

The proposed catchment categories appear to focus on supply systems with reservoirs and are difficult to interpret for supply systems that rely on large run-off river catchments.

A number of local water utilities in regional NSW source raw water from large catchments where the microbial risk activities are at a considerable distance from the water supply system off-take but where there is no specific inner catchment protection. Most of these systems would fall into the less risky categories requiring less onerous treatment, but the lack of inner catchment protection would move them into the more risky categories requiring significant infrastructure upgrades. Apart from the distinction between inner and outer catchment, which is specific to reservoir systems, little recognition is given to the proximity of the microbial risk activity relative to the source water off-take and pathogen inactivation as a result of hydraulic residence of pathogens in environmental land and water. Also, there is little evidence for the risk categorisation of unprotected catchments with low density land use, from which many local water utilities source their water.

A much stronger evidence base is needed for catchment risk categorisation in regional NSW to justify the potentially significant and costly level of investment in treatment processes and infrastructure.

Water Directorate submission

Finally, LGNSW commends to the NHMRC the Water Directorate NSW's submission, which provides comprehensive technical commentary on the specifics of the proposed regime. LGNSW fully supports this submission. The Water Directorate is a membership organisation of councils in NSW that provide water supply and/or sewerage services. The Water Directorate has a high level of technical expertise in urban water service provision in regional NSW and detailed knowledge of the technical, operational and managerial challenges NSW councils' local water utilities face.

Conclusion

LGNSW hopes that its comments are of assistance and looks forward to continuing to contribute to achieving secure, reliable and safe drinking water services in regional NSW.

For further information on LGNSW's submission, please contact, Sascha Moege, Senior Policy Officer on 9242 4045 or sascha.moege@lgnsw.org.au.