Public Notice: Proposed minor corrections to microbial water quality guidance in the Australian Drinking Water Guidelines (Chapter 5 and Appendix 3)

28 April 2023

Table 1. Australian Drinking Water Guidelines corrections to Chapter 5 and Appendix 3.

Section	Page	Summary of Proposed Edits	Current (September 2022) Guideline text	Proposed updated Guideline text
Chapter 5	90	Edits to correct text explaining rounding and adjustments in the Guidelines.	Therefore, the LRVs included in Table 5.5 are rounded to the nearest 0.5 log and represent the upper end of ranges shown in Table A3.8. Additionally, due to the observed overestimate of infective oocysts with standard methods for Cryptosporidium in Australian catchments the LRVs for protozoa in Table 5.5 have been reduced by 1 $\log_{10}$ for Category 1 to Category 3 catchments and 0.5 $\log_{10}$ for Category 4 catchments.	Therefore, the LRVs included in Table 5.5 are rounded to the nearest 0.5 log and represent the upper end of ranges shown in Table A3.8. Additionally, due to the observed overestimate of infective oocysts with standard methods for Cryptosporidium in Australian catchments, the LRVs for protozoa in Table 5.5 have been reduced by 1 $\log_{10}$ for Category 2 to Category 4 catchments.
Appendix 3	1173	Edits to correct footnote 1 of Figure A3.1.	[1] 1.0 $\log_{10}$ for Categories 1 to 3 and 0.5 $\log_{10}$ for Category 4.	[1] -1.0 $\log_{10}$ for Categories 2 to 4.
Appendix 3	1183	Addition of a sentence to the end of the paragraph beginning 'Infectivity of Cryptosporidium…'.	Longer retention times in reservoirs or in river runs with limited impacts close to points of abstraction (e.g. vulnerability classes 1 and 2) are likely to provide further reductions of infectivity. However, these studies show variable results.	…… However, these studies show variable results. Based on the results for speciation and infectivity, the LRV targets for Cryptosporidium shown in Table A3.9 have been reduced by 1 $\log_{10}$.
Appendix 3	1184	Edits to correct and replace footnote 2 in Table A3.9.	(2) The LRV was based on the upper 95th credible interval on the mean for the confirmed recovery-adjusted Cryptosporidium concentration (oocysts/L) for representative catchments as presented in Deere et al. (2014), with Category 1 to 4 being anchored to reference catchments 4B, 3C, 2B and 5C, respectively, and with infectious oocyst concentrations being estimated to be below the confirmed oocyst concentrations by 1 log for categories 1 to 3 and 0.5 log for category 4 due to the latter lacking inner catchment protection.	(2) The LRV was based on the estimated arithmetic mean of total oocyst counts for different Australian source waters. Total counts typically overestimate human infectious oocysts, and therefore an infectivity discount factor of -1.0 $\log_{10}$ was applied to obtain the LRV target. For high-risk sources (e.g. category 4), the discount factor may need to be reduced (e.g. to -0.5 $\log_{10}$) which will change the required LRV. This should only be done in consultation with the relevant health authority or drinking water regulator.