Australian Government
Department of Climate Change, Energy, the Environment and Water

Australian & New Zealand
GUIDELINES FOR FRESH & MARINE WATER QUALITY

Response to public submissions on draft default guideline values for simazine in marine water

February 2026

Draft default guideline values (DGVs) for simazine in marine water were published on the Water Quality Guidelines website for a 3-month public consultation period. During this period, comments for the draft DGVs for were received via public submission.

Responses to comments and any associated edits to the draft DGV technical brief are outlined in Attachment A, de-identified for public record. The responses and revisions have been approved by the original peer reviewers and the jurisdictional technical and policy oversight groups and noted by the National Water Reform Committee.

The default guideline values for simazine in marine water are now published as final. For additional information on the publication process, please refer to the pathway for toxicant default guideline value publication.

The Water Quality Guidelines Improvement Program thanks all submissions for their valuable contribution to the development of default guideline values for the protection of aquatic ecosystems.

Response to public submissions on draft default guideline values

Toxicant: Simazine in marine water

Submitter	Comment	Response	Action taken
1.	1. One point of clarification that is needed is why marine fish data were not included in the DGV. The >LC50 endpoints for *Morone saxatilis* and *Cyprinodon variegatus* are rejected on the basis that they are unbounded (>) values, however the technical brief states that unbounded values are accepted if no other endpoints are available for that species (> LC50s were accepted for *Neopanope texana* and *Palaemonetes kadiakensis*).	The authors had already discussed this point at length when initially deriving the GVs. The reasoning behind the omission of the censored fish data is as follows: The study resulted in censored acute toxicity data – specifically for *Morone saxitalis*; EC50 >3000 µg/L or LOEC = 1000 µg/L. Acute LOEC data are ineligible, so we are forced to consider the acute EC50. But when this is divided by the ACR of 10, the resulting 300 µg/L is very different from the LOEC. It is a similar situation for *Cyprinodon variegatus;* EC50 >4300, LOEC = 4300. Acute LOEC data are ineligible, so we are forced to consider the acute EC50. But when this is divided by the ACR of 10 we get 430 µg/L, also a long way from the LOEC. So we chose to omit this data, which we believe is consistent with Warne et al. 2018 / 2025.	No action taken
	2. It is unclear what constitutes a poor model fit. Would a better model fit be possible if the fish endpoints were incorporated?	Guidance is provided in Warne 2018 (Fig 2) as to what constitutes a poor or good model fit. In relation to the SSD in Appendix C which used chronic data only (no converted acute) the SSD is considered poor fit mostly due to the stacking of the points, in particular the two Bacillariophyta data points at the top of the curve and the Dinoflagellata datapoint. SSDs are provided in Warne et al. (2018) as a comparison.	No action taken
	3. Deleting freshwater endpoints from data spreadsheet if not used in the DGV derivation	The filter tool has now been added to the columns in the spreadsheet which allows the reader to quickly sort through the content and distinguish fresh from marine. It is important that all the data that was taken into consideration for the DGVs is kept in the spreadsheet and not removed so that there is tracking of why it was not included.	Filter tool added to spreadsheet
	4. Including more information on the relative toxicity of transformation products of Simazine. Triazine herbicides are known to have long-lasting metabolites, perhaps providing a little bit more information on them could be helpful for providing context and making up for the lack of toxicity data available for them.	Noted	Added more information to section 3 and reference Scribner et al 2005 and

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			USEPA OPP 2007
	5. Typo in Table 1 - extra bracket	Noted	fixed – bracket removed
	6. Including more information on the MoA of Simazine to heterotrophs. A good amount of information is provided for phototrophs, and if both groups have comparable toxicity, that is good justification to explore the MoA in heterotrophs too. If ROS and endocrine disrupting effects pertain to only heterotrophs (or are significant in heterotrophs) this should be explicitly stated.	Noted	Information has been added to section 4.1 and reference Sai et al. 2015
2.	There is concern that the recommended value of 30 µg/L (95% species protection) may not be sufficiently protective for vulnerable or low-disturbance marine ecosystems, particularly those adjacent to: •areas listed under Matters of National Environmental Significance (MNES) •estuarine zones with high ecological or commercial sensitivity •certified organic agriculture or aquaculture We therefore **recommend adopting the more conservative DGV of 15 µg/L (99% species protection)** as a default in these sensitive contexts. This aligns more closely with the precautionary principle, supports biodiversity conservation, and protects the integrity of production systems that depend on low-chemical aquatic environments.	The DGV technical briefs specify the DGV for application to slightly to moderately disturbed ecosystems, because these are the most common type of ecosystem. After this, the guidance is provided in the ANZG Guidelines. In keeping with a consistent approach to formatting, the user is referred to the website for more information and to use the DGVs in accordance with the detailed guidance on the ANZG website.	No text added to brief
	We also urge the Department to: •Integrate these guideline values into nationally consistent water monitoring protocols, particularly in agricultural catchments and irrigation-fed estuarine systems •Prioritise routine testing and data transparency for pesticide residues in major river systems, coastal outflows, and aquaculture zones	These recommendations (while not included in the Technical brief) have been noted	No text added to brief

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	•Promote complementary policy measures that reduce reliance on synthetic herbicides, including support for organic and regenerative land management practices		