

# Revision of the Australian Groundwater Modelling Guidelines

## Progress Report #1 – September 2025

Welcome to the first progress update for the revision of the Australian groundwater modelling guidelines.

The South Australian Department for Environment and Water (DEW) is leading a project to develop new national groundwater modelling guidelines. The guidelines are aimed at groundwater decision-makers, including managers who commission models, government regulators, and others who use model results. They will also support groundwater modelling professionals.

The project will produce two documents: a set of guidelines aimed at decision-makers and a report of recommendations for further work. This project is consulting with stakeholders from all states and territories to develop these.



### Progress to date

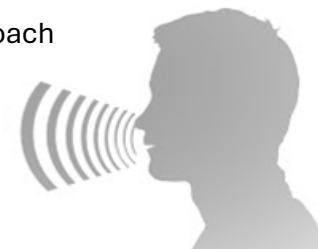
The project funding was approved in December 2024, and in early 2025 we set out to listen to what the groundwater modelling and management community had to say.

With the support of the International Association of Hydrogeologists Australia and the National Centre for Groundwater Research and Training, a survey asked respondents to comment on the use of the existing guidelines and, importantly, what would be useful in future guidelines.

### What have we heard?

We heard that the existing guidelines were generally thought to:

- Provide a good framework and structured approach
- Be useful for early career modellers
- Provide a reference point for more experienced modellers and reviewers
- Help set expectations with end-users
- Be largely still valid and clear.



Some of the current challenges raised about the existing guidelines included:

- Complexity—were the current guidelines biased towards complex models?
- Confidence level classification—was it misleading or misunderstood?
- Uncertainty—2001 and 2012 guidelines are becoming out of date.

With respect to future guidelines, respondents were keen to see more on:

- Management context, planning, the question
- The importance of data and conceptualisation
- Simplicity and complexity
- Parameters and calibration
- How to address uncertainty
- Role of model reviews
- The need for clarity of reporting.

Following the survey analysis, the project team has been following up with selected survey respondents through small-group engagement sessions. These small-group discussions will continue to complement the project's planned engagement activities.



We have recently developed a communications and engagement strategy with our engagement facilitator, Fiona Chandler of Alluvium Consulting.

This dynamic strategy outlines our plans for wider and deeper engagement in the future, including workshops across states and territories, and across industries.



### Funding Acknowledgment

This project is a national project, funded by the Australian Government through the National Water Grid Fund (\$1.5 million) and the South Australian Government (\$405,000).

## Upcoming Events

The team will be hosting a session on the project at the 52<sup>nd</sup> Congress of the International Association of Hydrogeologists. If you are attending, our session is on Friday 19 September at 10:30 am, and we hope to see you there.

We will also be hosting an online introductory webinar on 15 October 2025, followed by our first round of workshops in October and November, with further workshops in early 2026.

This webinar is aimed at all groundwater modelling and management people and organisations who want to:

- Find out more about the project and the process for the review
- Share any initial ideas on how future groundwater modelling guidelines can better meet your needs
- Learn how to continue to be part of the review.

We will be reaching out to government agencies in this quarter with invitations to participate in state-based workshops. The purpose of these initial workshops is to ensure the project team clearly understands the changing needs of government in relation to:

- How model outputs are used to inform development assessments and approvals
- How models can be used to support water planning and management
- How can groundwater modelling projects engage iteratively with science, policy and planning?
- How can we support the communication of science?

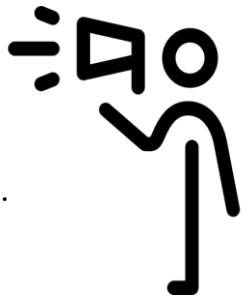
### Join the conversation and get involved

You can find out more about the project, how to participate in the engagement activities, and connect with the project team via our new project webpage: <https://www.environment.sa.gov.au/australian-groundwater-modelling-guidelines-revision>.

Visit the website to subscribe to future updates and register your interest to participate in future guideline revision activities.

A big part of what will make this revision successful is the engagement we undertake with you.

Please share this update and suggest people we can reach out to as part of our engagement. We'd love to hear from you!



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