Australasian Groundwater & Environmental Consultants

Approvals and licensing

Impartial scientific expertise to power your project

The development of major projects that extract or interact with groundwater requires engagement and approval from governments. The approvals and licensing process can be a highly complex and costly exercise to navigate, with potential impacts to your project's design, plan, timing and budget.

Making sure your environmental approvals are done right the first time means you avoid a long drawn-out and costly process. It's crucial you are supported by highly experienced groundwater specialists who are well versed in regulator requirements, to help pave the way for a successful approval or licence for your project.

About us

We're Australia's groundwater specialists, providing water and environmental advisory across Australasia for more than 25 years. We have a depth of experience and technical excellence borne out of more than 2,500 projects across major industries, agriculture, government and communities in Australasia and beyond.

We specialise in end-to-end groundwater services, from field work and modelling to analysis and reports, to expert advisory and peer review. That means we understand the commercial, environmental, government and community challenges you face in our increasingly complex world.

Timing and accuracy are crucial in approvals and licensing. We understand our clients need a partner to rely on and at AGE, we pride ourselves on being independent, impartial advisers.

Our Expertise

With a significant track record of successful projects, our team is intimately familiar with the relevant government laws, regulations and policies that govern the use of groundwater. We stay up-to-date with government legislation to help you understand your obligations and avoid unnecessary complexities and costs.

Our experience producing groundwater assessments that meet the expectations of regulators and other statutory bodies is unparalleled. Since 2012, we've been involved in almost half of the major coal and coal seam gas projects assessed by the Independent Expert Scientific Committee (IESC).

Our ability to liaise with the regulators means we're able to take an incremental approach, managing risk as we progress. We leverage our scientific expertise and existing relationships to ensure an informed decision and assist with your regulator consultations.

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We help you navigate complex regulation to secure your approval or licence



Groundwater impact assessments

In Australia, federal and state legislation typically requires proponents of major projects to prepare an environmental impact statement (EIS). In many cases, potential impacts on groundwater systems represents one of the most important technical studies. Depending on your needs, our studies may include:

- Assessing opportunities and constraints to identify key project risks and data gaps.
- Engaging with stakeholders, including regulators and community groups.
- Developing plans to characterise groundwater resources using our field services.
- Developing conceptual, analytical and numerical models.
- Preparing detailed reports according to industry and government guidelines.
- Identifying potential ongoing mitigation and monitoring measures.

Groundwater impact assessments

Along with completing an EIS, we can work with you to conduct pre-feasibility and preliminary impact studies and manage internal stakeholder communications before progressing to an EIS. In our experience, this helps our clients understand the risks and potential issues as well as secure internal funding approvals to proceed.

Groundwater modelling

Our AGE modelling team is the largest consulting modelling team in Australia. With our own proven methods, we excel at uncertainty analysis. We deliver a bespoke service and pride ourselves on providing useful models that are based on solid foundations. Our conceptual, analytical and numerical models help you uncover groundwater complexities, gain a deeper understanding and ultimately, progress your project's approval.

Stakeholder management

Stakeholder management is an integral part of securing your approval or licence. Our team has extensive experience in giving presentations on our assessment methodology and study findings, addressing submissions, and can represent as an expert witness when required. We simplify complex issues and communicate your groundwater impacts in clear and easy-to-understand language to your diverse stakeholders.

Stakeholder management

Our support doesn't end after the approval of your project, as many activities that interfere with groundwater generally include conditions for the ongoing monitoring of groundwater, quantification of water take and routine reporting. We provide advice and reporting to help you meet your ongoing regulatory requirements, including groundwater monitoring, modelling programs and water management plans.

Our services

Groundwater approvals and licensing

- Preparing groundwater impact assessments for environmental impact statements (EIS).
- Reviewing monitoring data and preparing annual compliance reports.
- Preparing underground water impact report (UWIR).
- Consulting with regulators to support our clients during government engagement.
- Assessing the yield of groundwater bores to support applications for water licences.

Our experience

Here are some highlights of our significant track record where approvals or licensing have been the focus:

- Mt Pleasant Optimisation Project Expansion
- Narrabri Underground Mine Stage 3 Extension Project – Expansion
- Mangoola Coal Continued Operations Project – Expansion
- Glendell Continued Operations Project – Expansion
- Wallarah 2 Coal Project – New Development
- United Wambo Open Cut Coal Mine Project
- Bylong Coal Project
- Drayton South Coal Project Expansion
- Watermark Coal Project
- West Muswellbrook Project
- Coalpac Consolidation Project
- Continuation of Bengalla Mine
- Boggabri Coal Mine Extension
- Maules Creek (Aston 2) Coal Mine
- Isaac Downs Coal Mine Project – New Development
- Middlemount Coal Mine Western Extension – Expansion
- Ironbark No.1 Project
- Grosvenor Coal Mine G200 Expansion
- China Stone Coal Mine Project
- Rolleston Coal Expansion Project
- Taroborah Coal Project
- Boundary Hill South Project
- Bowen Gas Project
- Newlands Coal Extension Project
- Drake Open Cut Coal Mine
- Cadia East Project
- Ernest Henry Mine Borefield Reporting
- Toowoomba Emergency Water Supply
- Dartbrook Mine Open Cut Project
- Ulan Coal Mine MOD4
- Eagle Downs Coal Mine Project



Our team

Andrew Durick

Director | Senior Principal Groundwater Modelling

Andrew has over 25 years' experience in groundwater modelling with intimate working knowledge of MODFLOW (industry standard modelling code) and significant experience in both the public and private sectors. He specialises in conceptualisation and modelling of complex groundwater systems, implementation of complex mine plans and third party review of models.

Keith Phillipson

Senior Principal Hydrogeologist

Keith specialises in the use of groundwater models to assess and manage the impacts of a broad range of developments on groundwater and surface water resources, with more than 25 years' experience working in jurisdictions including Queensland, New South Wales, Victoria and Europe. In particular, Keith has undertaken, overseen and peer reviewed a wide variety of modelling studies focused on assessing the cumulative impacts of large-scale water supply, coal mining and coal seam gas developments.

Dr Angela Bush

Principal Hydrogeologist

Angela specialises in integrated groundwater assessments, contaminant investigations and geochemical analyses, with more than 15 years' experience in consulting, research and education. One of her strengths is underpinning groundwater quality and contamination assessments with an understanding of groundwater evolution mechanisms. With detailed knowledge of groundwater systems in various settings, specifically focussing on fractured rock groundwater flow systems of North Queensland, she has supported clients across metalliferous and coal mines, industrial operations, unconventional gas projects, state and federal governments, and agriculture bodies.

Pieter Labuschagne

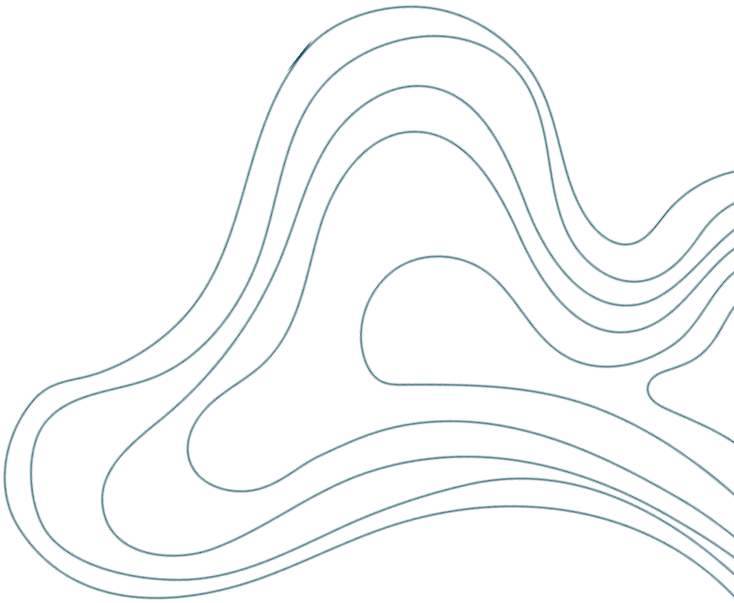
Central South QLD Region Manager | Principal Hydrogeologist

Pieter has 20 years of experience in Southern Africa, Africa and South America, including more than 15 years in a South African based consultancy as director and principal scientist. Having started his career in the development of groundwater monitoring systems for coal fired power stations, Pieter's expertise includes project management and delivery of hydrogeological conceptual models, groundwater impact and liability assessments, development of groundwater management plans, consultant reviews and numerical applications.

James Barratt

WA Region Manager | Principal Hydrogeologist

James has been involved with numerous groundwater resource and mine feasibility studies throughout Southern, Central and West Africa. He has conducted and managed field data collection services ranging from groundwater and geophysical surveys, drilling supervision and data collection, and packer and aquifer testing. James has also developed conceptual, analytical and numerical groundwater models to assess groundwater inflows into mining areas and simulated dewatering scenarios to optimise and inform mine dewatering planning and decision-making. He is well-versed at managing groundwater studies for large-scale planned and operational mines and the compilation of technical reports to comply with international standards.



We empower informed water decisions that help our clients, communities and environment thrive.

If you're looking for independent, impartial experts to lead your approvals' process, get in touch with us.

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