

To: Environment Protection Agency

Re: Guideline 3 – Establishing baseline groundwater quality

22 March 2024

Introduction

AMEC appreciates the opportunity to provide feedback on the EPA's draft 'Guideline 3 - Establishing baseline groundwater quality monitoring'. We welcome continued engagement to ensure mineral explorers and miners can contribute to the six new *Guidelines for groundwater quality monitoring of regulated activities*, planned for release by the EPA over the next few years.

About AMEC

The Association of Mining and Exploration Companies (AMEC) is a national industry association representing over 570 member companies across Australia, with over 37 member companies with direct project interests in South Australia. Our members are mineral explorers, emerging miners, producers, and a wide range of businesses working in and for the industry. Collectively, AMEC's member companies account for over \$100 billion of the mineral exploration and mining sector's capital value.

General Comments

Groundwater is the largest source of freshwater in the State and is critical to the health of ecological communities and the viability of the agricultural, pastoral, mining and tourism industries.

AMEC recognises that in South Australia, mineral exploration and mining activities may utilise and impact groundwater, and most mining operations could not sustainably operate without ongoing access to suitable groundwater resources.

AMEC is supportive of the EPA's ambition to clarify expectations for groundwater quality monitoring of regulated activities in South Australia, through the release of six new Guidelines to be released over the next few years.

1. Groundwater monitoring bore network design
2. Groundwater sampling
3. Establishing baseline groundwater quality
4. Establishing groundwater quality assessment criteria
5. Developing a groundwater monitoring and management plan
6. Groundwater quality assessment reporting

AMEC also supports the EPA's objective that these Guidelines will deliver the following key benefits;

- Provide greater regulatory certainty for all stakeholders
- Facilitate quicker State Government assessment and approval
- Significant cost benefit to achieving site closure – according to current literature
- Early establishment of baseline groundwater quality will reap the most economic benefits

AMEC appreciates the EPA's decision to consult first on 'Guideline3 – Establishing baseline groundwater quality', in recognition that capturing this baseline data has long lead times with associated project planning impacts that must be considered well in advance.

Mineral explorers and miners comply with robust environmental legislation including groundwater monitoring requirements, to ensure risks to the environment, groundwater systems and community, have been appropriately managed. AMEC is committed to ensuring these risks have been duly considered and addressed in a risk-based manner minimising; duplication, the need for red-tape, administrative burden and increasing cost. Guidelines that have been duly consulted-on and appropriately transitioned are anticipated to deliver these outcomes.

Interaction with other regulatory and legislative frameworks

AMEC seeks to better understand how these Guidelines interact with regulatory decision making under the *Environment Protection Act 1993*, *Mining Act 1971* and any other guidelines, policies or related legislative requirements. AMEC seeks to ensure that these Guidelines are to support meeting the obligations of existing legislation and are not a precedent to changes in legislation.

AMEC seeks to understand how the EPA will ensure that Guidelines will align with any related requirements borne out in the rebuilding of the Commonwealth EPBC Act and the introduction of; Nature Positive legislation, Environmental Protection Australia Bill and Environmental Information Australia Bill. This is to ensure that there is no duplication or conflicting requirements for mineral exploration and mining approvals and regulated activities.

it is understood that these Guidelines are expected to clarify regulatory expectations and seeks clarification regarding practical limitations to enforce these guidelines and the consequence of not providing the required baseline data and information in accordance with the Guidelines. AMEC recommends that information outlining which State government agency (EPA, DEM or DEW) will enforce adherence to the Guidelines and a reference to the specific regulatory and legislative requirements under the *Environment Protection Act 1993* and the *Mining Act 1971*. AMEC and industry expect that the EPA will work with DEM to update existing mineral exploration and mining guidelines and policies in accordance with the EPA's new Guidelines.

AMEC recommends including guidance and options for project specific flexibility and related be-spoke agreements for projects that may be operating in unique groundwater ecosystem, unconventional mining activities or for projects already having commenced existing mining project approvals.

Mineral Exploration and Mining Approvals

AMEC supports a streamlined mineral exploration and mining approvals process and seeks to ensure that the requirements of the EPA Guidelines will align with existing Mineral Exploration and Mining Approvals, including the Scoping process introduced by DEM, the Program for Environment Protection and Rehabilitation (PEPR), Mineral Licence approvals processes and ongoing compliance and closure requirements.

Timelines

AMEC notes that the draft Guidelines set out an expectation for a minimum of two years of quarterly data collection by proponents of regulated activities, and this may be longer for large and complex sites. The requirement for this additional data introduces a risk that timelines for approvals may be

extended and this may delay the start of operations affecting investment in the project and the flow through of financial and economic benefits. AMEC recommends that the implementation and adherence to these Guidelines and any additional data capture, monitoring and reporting of baseline groundwater quality data to meet new requirements set out in the Guidelines, should not extend or delay timelines for approvals.

AMEC recommends special consideration in the Guidelines for cases where projects have a short duration of operation that is less than the recommended baseline period of two years. Examples include, campaign mining or the re-start of a mining operation that has been in care and maintenance for an extended period of time.

Additional Project Costs

AMEC notes that the draft Guidelines indicate that a minimum of at least three wells are monitored for each aquifer of interest, with more wells likely for large sites or sites with variable ground water quality. It is expected that this may require additional boreholes to be drilled and AMEC notes this may incur significant cost that has not been accounted for in project budgets for those already part way through or having completed 2 years baseline data. The expectation for transition should be clarified by DEM and EPA with individual project proponents.

AMEC expects that new requirements set out in the Guidelines should not add unnecessary additional costs to the life-cycle of a project. AMEC notes the EPA intent to ensure planning and capture of baseline groundwater data commences early and that, although this may incur more up-front costs, this may alleviate costs at the time of closure. This benefit should be clearly outlined in the Guidelines and the EPA and DEM should reinforce this with project proponents in the advanced stages of exploration and resource definition well ahead of Scoping or Mining lease application.

Groundwater Monitoring and Management Plan

The draft Guidelines state that: *'The establishment of a baseline groundwater quality data set, for an existing or proposed regulated activity, will be implemented through its inclusion in a Groundwater Monitoring and Management Plan (GMMP) and related licence conditions.'*

AMEC seeks to understand how the GMMP will interface with mineral exploration and mining approvals and compliance requirements, including the PEPR and other guidelines and policies, administered by the Department for Energy and Mining (DEM).

Transition Arrangements and Timing of Data Capture

AMEC and industry ask for greater clarity in the Guidelines to outline the transition arrangements. This includes recognition and a provision for acceptance of current data in cases where projects already have baseline data that has been captured in accordance with current requirements. AMEC and industry note that data capture in accordance with the new Guideline standard could involve a 2-3 year process that includes; planning, well and monitoring design, heritage considerations, groundwater drilling, contractor availability, approvals and licencing, followed by the required 2 years of baseline monitoring. This clearly demonstrates that an abrupt transition to the new Guideline standards would materially delay the progress of these projects.

AMEC recommends the EPA consider allowing the 2-year baseline monitoring to progress in parallel with other approval and licence granting in cases where the potential impacts to groundwater will not come into play until certain activities such as excavation or plant commissioning occur on site. AMEC also suggests that, in cases where a baseline period greater than 2 years may be required to reflect seasonal influences, e.g. for confined aquifers, that the EPA and DEM consider accepting additional data obtained through water sampling during exploration drilling activities.

AMEC recommends that the EPA and DEM support a period of transition for mineral projects already in the approvals or development process, noting that if more data is required this will increase costs and timelines affecting the viability of advanced projects and delivery of economic outcomes.

Application of Guidelines in different groundwater settings

It is understood that the recommended baseline groundwater data capture of 3 wells and quarterly data collection over 2 years, as outlined in the Guidelines, will be standard for all types of groundwaters that a project has the potential to impact. AMEC recommends consideration of the ecosystem context and the potential for some groundwater resources to be considered for different baseline requirements.

AMEC proposes the option for mineral explorers and miners to develop agreed site-specific baseline groundwater collection programs and requirements that are proportionate to the risk and potential impact to the groundwater attributes of a particular site. This should be in accordance with the expected impact of mineral exploration and mining activities to occur on site. These include wide-ranging activities such as; open-cut, underground, block cave, in-situ recovery mining, exploration co-steaming trenches and declines.

The importance, type and use of groundwater sources at the site should also be taken into consideration. AMEC and industry note for example, that there is a proportional difference between the risk of impact to groundwater that is; single/multi-user, confined/unconfined, aquifer/artesian/prescribed well or saline/potable water quality. In local contexts that are considered low-risk groundwater settings, fewer data collection wells may be required to deliver an effective baseline groundwater quality. This risk-based proportional data capture aligns with the EPA's objective that for large more complex projects that more wells and data collection is required in alignment with the risk to groundwater impact of such projects.

Other industry groundwater data standards and potential data sharing

AMEC notes that other industries that undertake regulated and non-regulated activities may also impact groundwater quality. AMEC seeks to ensure that these guidelines will be equally applied to all industries including; pastoralist and farming activities, forestry, landfill and wastewater treatment sites. Ensuring that other industries are subject to the same requirements as the mining industry for baseline groundwater data collection is important for regulatory equity and community perception.

AMEC seeks to ensure that the opportunity for baseline groundwater quality data that is collected by industry and from other activities, that meets the standard, continues to be submitted to the State government and shared on the Water Connect open platform. Capturing and sharing as much of this existing pre-competitive data as possible, can reduce project risk by potentially reducing the number of new wells to be drilled and thereby decreasing project costs and timeframes.

Final comment

AMEC and industry recognise that groundwater is an important resource in South Australia shared with other industry and community, and that mineral exploration and mining activities may impact these resources. AMEC supports measures to ensure impact to groundwater resources is minimised and supports a process of streamlined approvals, compliance and reporting that does not increase overall costs or delay project timelines.

AMEC notes the time invested to develop these Guidelines and that five more are to be developed in the series. AMEC expects that appropriate staffing resources are made available to ensure that industry can access business as usual, and additional specific guidance to comply with the new Guidelines.

AMEC welcomes ongoing engagement with the EPA and DEM as '*Guideline3 – Establishing baseline groundwater quality*' is refined and implemented providing guidance for mineral exploration and mining companies undertaking regulated activities. AMEC and industry also welcome engagement on the other five Guidelines for groundwater quality monitoring, which are planned to be released for consultation over the next few years.

For further information contact:

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