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Dr Allan Hawke, AC
The Commissioner
Hydraulic Fracturing Inquiry
c/- GPO Box 4204, Darwin NT 0801

Submission on the Inquiry into Hydraulic Fracturing in the Northern Territory

Dear Commissioner,

Thank you for the opportunity to comment on the Terms of Reference (TOR) for the Inquiry into Hydraulic Fracturing in the Northern Territory.

The Australian Water Association (AWA) is Australia's leading membership association for water professionals and organisations. AWA is independent and plays an essential role in supporting the Australian water sector in the delivery of effective and sustainable water management practices. Our mission is to foster knowledge, understanding and advancement in sustainable water management – its science, practice and policy – through advocacy, collaboration and professional development.

This submission is provided with input sought from the Northern Territory Branch of the Association.

Evidence based decisions

AWA states that first and foremost any decisions on hydraulic fracturing in the hydrocarbon exploration and extraction industry in the Northern Territory should be based on rigorous science from reputable sources. AWA is calling for greater balance in the public debate around the impacts of hydraulic fracturing on Australia's water resources. To achieve this balance, AWA believes that Commonwealth, State and Territory Governments must support continuing research into the interactions between groundwater and mining processes, including hydraulic fracturing. This includes ensuring adequate baseline data to determine impacts on water resources.

AWA notes that similar inquiries and investigations in other Australian jurisdictions are currently underway or have been completed and may provide valuable sources of information. However regionally-based research is important to address geographically specific issues and further research is required within the Northern Territory. The outcomes of this research will provide high quality, transparent information, which is essential to balance the national debate with credible evidence-based information on the effects of hydraulic fracturing on Australia's water resources.

Protection of public health

The protection of public health is of primary concern to AWA. As such, it is imperative that public health is considered as an environmental impact in the Inquiry. The most significant risk to public health from hydraulic fracturing is the contamination of water supplies (WA Department of Health, 2013). The potential impacts on human health from chemicals used in hydraulic fracturing should be well understood and AWA endorses full disclosure of chemicals used in hydraulic fracturing to the Northern Territory Health Regulator.

According to the National Health and Medical Research Council's Australian Drinking Water Guidelines (AWDG) safe drinking water is essential to sustain life and every effort needs to be taken to ensure that drinking water suppliers provide consumers with water that is safe to use. As the obligation is to ensure safe water and protect public health, the balancing process must be tipped in favour of taking a precautionary approach.

The most effective means of assuring drinking water quality and the protection of public health is through adoption of a preventive, structured and systematic management approach that encompasses all steps in water production from catchment to consumer. Prevention is an essential feature of effective drinking water quality management. Catchment management and source water protection provide the first barrier for the protection of water quality. An integrated management approach with collaboration from all relevant agencies is essential for effective drinking water quality management. Such an approach should be considered when reviewing the regulatory framework for hydraulic fracturing.

Sustainable use of water resources

AWA accepts the Brundlandt Commission definition of sustainable development as the most widely accepted: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs". AWA interprets this definition as including intra- as well as inter-generational equity. It is essential that the Inquiry investigate the long-term impacts of hydraulic fracturing on water resources. This includes the potential impacts on water quantity in addition to water quality.

The Northern Territory Government should ensure it has a strong, transparent and effective regulatory framework that governs hydraulic fracturing in the NT. It is imperative that the Controller for Water Resources (as defined in the *Water Act*) is consulted in regulatory decisions on hydraulic fracturing, in particular where decision potentially affect water resources in the NT.

The efficacy of measures used to mitigate risks to groundwater from contamination through hydraulic fracturing should be assessed in the long term, beyond the operational life of the asset. For example the integrity of borehole casing and capping should be considered beyond the operational life of the materials.

AWA also believes that the Inquiry into Hydraulic Fracturing should consider the potential cultural impacts on water resources. In particular potential impacts to Indigenous cultural uses of water resources should be considered. Organisations such as Charles Darwin University, CSIRO and the



North Australian Indigenous Land and Sea Management Alliance have published relevant research on cultural uses of water.

Community and stakeholder consultation

AWA recognises the high level of community interest in hydraulic fracturing and for this reason believes that appropriate consultation with communities and other stakeholders is essential. Consultation should be meaningful and be undertaken early in the policy development process so that the outcomes of consultation can be accommodated. AWA commends the Commissioner for providing the opportunity for communities and stakeholders, including the AWA, to make submissions into this Inquiry.

Summary

The Australian Water Association's recommendations to the Inquiry into Hydraulic Fracturing are:

- Decisions into the impact of hydraulic fracturing should be evidence based. This requires additional research into the potential environmental effects of hydraulic fracturing at both a Federal and State/Territory level. Regionally relevant research is critical.
- An integrated management approach consistent with the framework proposed in the ADWG should be adopted where there are potential impacts on public health.
- The potential impact on water resources, including both water quality and quantity, should form an integral component of any assessment into hydraulic fracturing.
- The Northern Territory Government should ensure it has a strong, transparent and effective regulatory system that governs hydraulic fracturing in the NT.
- Appropriate consultation with communities and other stakeholders is essential

Please don't hesitate in contacting Amanda White, National Manager – Communications and Policy, on 02 9467 8416 or awhite@awa.asn.au if you require further information on the recommendations outlined in this submission.

Yours sincerely

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References

NHMRC & NRMCC, 2011, *Australian Drinking Water Guidelines* (2011) Updated December 2013, National Water Quality Management Strategy

WA Department of Health Submission to Standing Committee on Environment and Public Affairs, 2013, Inquiry into the Implications for Western Australia of Hydraulic fracturing for Unconventional Gas