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Senator Janet Rice
Chair Environment and Communications References Committee

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Dear Senator

Thank you for your letter dated 23 October 2017, inviting a written submission addressing any relevant matters included in the terms of reference for the Environment and Communications Reference Committee's Inquiry into Water Use by the Extractive Industry.

Our submission is enclosed.

We are currently engaged in a range of work that will result in important reforms to the regulation of extractive industries in the Northern Territory. The Scientific Inquiry into Hydraulic Fracturing in the Northern Territory should hand down its report in March 2018. Regulation of water use by mining and petroleum activities, in common with all other industries, will be brought under the *Water Act (NT)* later in 2018. Comprehensive review of environmental assessment and regulation arrangements across all sectors of the Northern Territory, including reform of environmental protection and management legislation and regulation applying to mining and petroleum activities should be completed in 2020.

Reforms implemented to address recommendations from a recent water licensing review will be applied to water licensing activities by the extractives industry and will bring regulation of water use under the *Water Act*, in common with other industries, later in 2018. These reforms will build on, and significantly improve, the substantial regulatory arrangements already applying to the extractive industry in the Northern Territory.

Should the Committee meet in the Northern Territory, I would welcome the opportunity to make senior officials available to brief you on the existing and proposed regulatory arrangements for ecologically sustainable water use by our extractive industries.

I wish you and the Committee well in your endeavours and look forward to receiving a copy of your findings in due course.

Yours sincerely

NICOLE MANISON

14 DEC 2017



Northern Territory Submission:

Senate Environment & Communications References Committee Inquiry into Water Use by the Extractive Industry

Introduction

The Northern Territory Government is well aware of the importance of water to the people and industries of the Northern Territory. The Government is currently reviewing the *Water Act*, with the aim of extending its application to mining and petroleum activities. In addition, the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory is underway, and is due to report to Government in March 2018. This is anticipated to lead to greater clarity about the regulation of gas extraction from deep shales (generally at more than 1 km depth). The Northern Territory has no coal seam gas extraction and the case for extending the water trigger under the *Environment Protection and Biodiversity Conservation Act* will require greater justification and evidence.

In the Northern Territory, water use by the mining and petroleum (including gas) extraction industries are currently administered under the *Mining Management Act* and the *Petroleum Act*. This regime will change in 2018, with proposed amendments to the *Water Act* which will see that Act apply to water use by all mining and petroleum activities. Mining and petroleum project proposals with significant potential impacts on water are referred to the Northern Territory Environment Protection Authority under the *Environmental Assessment Act* and major production projects inevitably undergo a full public assessment process.

Responses to Inquiry's Terms of Reference

- a) Adequacy of the existing regulatory framework governing water use by the extractive industry with particular reference to the social, economic and environmental impacts of extractive projects' take and use of water.

Issues relating to social, economic and environmental impacts of mining and petroleum projects are considered when they are assessed by the Northern Territory Environment Protection Authority (NTEPA) under the *Environmental Assessment Act*. All projects that involve significant potential impacts on water resources are referred to the NTEPA for consideration, prior to being considered for approval under the *Mining Management Act* or *Petroleum Act*. Conditions relating to water use or impacts are currently set under the *Mining Management Act* or *Petroleum Act*. However, from 2018 this function will occur pursuant to the *Water Act*.

- b) Existing safeguards in place to prevent damage, contamination or draining of aquifers and water systems

Contamination of aquifers and water systems that is not confined within a mining site or petroleum site is controlled through waste discharge licences granted under the *Water Act*. These licences operate to limit the extent of contamination and detriment to environmental values to within defined mixing zones in receiving water resources. Licence conditions include, *inter alia*, wastewater quality limits based on relevant ANZECC guidelines, or site specific limits determined from extensive monitoring of the receiving water resources, and requirements for emergency management response provisions for contamination spills or unauthorised discharge events.

Conditions relating to water use are currently set under the *Mining Management Act* or *Petroleum Act*. To date water extraction by the petroleum industry in the Northern Territory has been negligible. Petroleum title holders use licensed drillers and monitor bores. The Petroleum (Environment) Regulations require an environment management plan taking into consideration appropriate risk mitigation measures for water extraction activities. The Mining Operations Branch, Department of Primary Industry and Resources, undertakes check monitoring at mines where there are significant water issues or risk of impacts. All operating mines must have a water management plan as part of their authorised activities.

- c) Any gaps in the regulatory framework which may lead to adverse social, economic or environmental outcomes, as a result of the take and use of water by extractive projects

Current work being progressed through the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory, comprehensive review of the environmental assessment and regulation framework and amendment of the *Water Act* for application to mining and petroleum activities will identify any gaps in the regulatory framework that contribute to adverse social, economic or environmental outcomes arising from the take and use of water by extractive industries.

Licensing of water take and use by mining and petroleum activities under an amended *Water Act* is expected to commence in 2018.

The Scientific Inquiry into Hydraulic Fracturing is expected to deliver its final report in March 2018, after which the Northern Territory Government will consider its findings.

In addition, a substantial review of environmental regulation is underway.

The first stage of the review is targeted for completion in 2019 and comprises the development of a new environmental protection Act that incorporates improvements to the environmental impact assessment system and the introduction of a single environmental approval by the Minister for Environment and Natural Resources. It is anticipated that the single environmental approval will pave the way for an agreement with the Commonwealth for bilateral approval of projects. Environmental assessments at the level of an environmental impact statement are largely undertaken as a bilateral process (for those projects where the Commonwealth *Environmental Protection and Biodiversity Conservation Act* (EPBC Act) is also triggered).

The second stage of the review is targeted for completion in 2020 and includes the transfer of environmental regulation for mining and petroleum activities (subject to outcomes from the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory) from the Department of Primary Industry and Resources to the Department of Environment and Natural Resources under the proposed new environmental protection Act.

- d) Any differences in the regulatory regime surrounding the extractive industry's water use and that of other industries

Industries, other than the extraction industry, must apply for the grant of a licence to take or use water in accordance with Part 6A of the *Water Act*, which requires a publicly transparent and accountable process in the decision to grant or refuse a licence application. All decisions to grant or refuse a licence under the *Water Act* are open to appeal by any party aggrieved by a decision.

All licences to take or use water granted under the *Water Act* are subject to a range of conditions, including the requirement to install meters and report usage. Breach of a licence condition is an offence under the *Water Act* for which the current maximum penalty is approximately \$2,300 (expected to be raised following amendment of the Act). The mining and petroleum industries will become subject to the *Water Act* in 2018.

At present, conditions on the use of water on mining and petroleum sites are set under the *Mining Management Act* or *Petroleum Act*. The use of, and impacts on, water resources are explicitly considered in mining management plans and environmental management plans for petroleum activities.

- e) Effectiveness of the 'water trigger' under the *Environmental Protection & Biodiversity Conservation Act 1999*, and the value in expanding the 'trigger' to include other projects, such as shale and tight gas

The Northern Territory Government would need to be convinced of the efficacy of extending the 'water trigger' under the EPBC Act to shale and tight gas. There is currently a moratorium on hydraulic fracturing in the Northern Territory whilst the Scientific Inquiry into Hydraulic Fracturing is underway. This Inquiry will closely examine the regulatory processes for development of deep shales and make recommendations about where changes to the regulatory environment are necessary.

The Inquiry commissioned ACIL Allen to undertake a review of the economic impacts of shale gas development in the Northern Territory. Under ACIL Allen's adopted assumptions regarding water use, potential shale gas development projects may use between 4.2 GL and 28.2 GL of water in total. In annual average terms, over the 25 year project life ACIL Allen has modelled, this represents between 0.17 GL/year and 1.13 GL/year average draw on water supplies. This is significantly less than the Australian Bureau of Statistics' estimated annual water usage by the agriculture industry in the Northern Territory (47 GL in 2015-16).

Through the Inquiry, ACIL Allen received information that suggests there are a range of options for shale gas development to source water – both potable and non-potable – in a manner which minimises tensions with existing users. For example, the Department of Primary Industry and Resources has identified aquifers with a sustainable yield of at least 100GL/year across the four prospective shale gas basins. All things being equal, this would suggest water is unlikely to be a constraint on the development of a shale gas industry within the current industry structure of the Northern Territory, and the prospect of a reduction in water availability for non-shale gas industry users in the aggregate is limited. In an economic sense, this means there is unlikely to be an opportunity cost borne by society resulting from the use of water by a shale gas development.

- f) Any other related matters

No other related matters have been identified by the Northern Territory.