

I write these submissions as a concerned member of the public. I am a born-and-bred Territorian with a great love and connection to the land, the wildlife and the pristine wild places of the Northern Territory.

Why fracking should not proceed in the Northern Territory

- The reality is that once water or land is contaminated, you can't un-contaminate it. The damage is irreversible and it's for this reason that we believe that fracking is **too risky** and should not be approved in the Territory.
- There is an **intergenerational inequity in the benefits** said to attach to the fracking industry.
- The **proven risks** of contamination to water, land and air grossly outweigh the benefits of fracking activities, when you consider:
 - the benefits consist of short term gains for a few, in the nature of short term jobs and profits
 - the benefits are, on the whole, received by national and multi-national exporters who don't care about damage to our land
 - the boom/bust cycle of the gas industry and the deluge of gas supplies worldwide.
- The escape of **methane gas** is unavoidable in the fracking process. Studies in the US demonstrate this. One former advisor to the US oil and gas industry, when asked to talk on the potential risks associated with allowing fracking in New York, stated that Pennsylvania prides itself upon being the most tightly regulated US State but their post 2009 wells are leaking at a rate of 13%. This number is significant when you consider the large number of wells per pad required to extract the shale gas. Once there is a "loss of zonal isolation", what can and will a fracking company do to remediate this?
- The **methane** that escapes from fracking activities contaminates our land, water and air. Methane is one of the most highly potent greenhouse gases.
- The reluctance of insurance companies to insure land subject to fracking, and of banks to loan on the security of land subject to fracking, is an indication of **the scale of the risk Territorians are being asked to assume** for the benefit of the government and national and multinational gas companies. I believe the Panel should be making enquiries of banks, lending institutions and insurance companies of their attitude towards insuring and loaning in respect of land subject to fracking, to gain a better idea of the risk to Territorians.
- **Legacy issues** – there can be no proper or sufficient provision for these.
- The fracking process requires too **much precious water**. 20-30 megalitres per well, multiplied by at least 6-10 wells per pad, is a price the Territory cannot afford to pay. Water is life. For half of the year, the Northern Territory receives precious little rain. Where is this water intended to be obtained from? Will aquifers be compromised? Our aquifers and water supplies should not be

sacrificed for this industry. Not enough is known of the long term effects to land, plants, animals and farming and agricultural industries of the impacts of such a massive water usage. It's too risky and it's a gamble we should NOT be taking with our precious Territory.

- Where does the **sand** come from to supply the fracking process? This again is a likely over-utilisation of natural resources that is not sustainable. More information on this needs to be provided to the public and to the Panel. There are already concerns about the over-utilisation of the Howard sand reserves near Darwin, (for concrete) to feed the building industry, which is destroying an ecologically significant area and without environmental impact assessment.
- The government and gas companies have **no social licence** to frack in the Northern Territory. Emphasis should be on renewable energy sources.
- There is insufficient knowledge of the impacts of fracking on **groundwater and biodiversity** for the industry to be allowed to commence/proceed in the Territory.
- In assessing whether fracking is too risky an industry to allow in the Territory, the Panel's assessment must involve an analysis of the **WORST CASE SCENARIO**.
- Sufficient regard should be had to the US experience of fracking and to the peer-reviewed reports that consider damage and contamination resulting from fracking in that jurisdiction.

If fracking is to proceed in the Northern Territory, it should NOT happen until the following are addressed:

- **An assessment of risk** in the Minister or relevant decision-maker's consideration of whether an individual application/licence should be granted must involve an analysis of the **WORST CASE SCENARIO**.
 - If you look only at issues that arise when all things are going to plan, you're not effectively assessing risk.
 - The assessment should look something like this:
 1. What could happen if all systems and procedures failed?
 2. What is the likelihood of these things happening?
 3. Even if the likelihood is small, does the potential outcome/loss/damage render the risk nevertheless too great?

Regulatory Scheme

- The **Water Act** must apply to the fracking industry.
- The **principle of ecologically sustainable development**, or the **precautionary principle**, must be included in the regulatory regime (the Petroleum Regulations) as a **statutory requirement**, not merely an objective. This should relate to well construction, water management and baseline studies.

- The terms “**acceptable**” and “**as low as reasonably practicable**” used in the Petroleum Regulations with respect to environmental impacts and risks must be **appropriately defined**.
- There should be a **defined aquifer interference policy** here, as there is in NSW. In instances where water contamination is found in the vicinity of fracking activities, there should be a **rebuttable presumption that the fracking company is liable**, as there is in some US states.
- It must be a statutory requirement that **baseline testing** be conducted on the following basis:
 1. It must be carried out at any proposed fracking site by a *qualified independent* regulatory authority;
 2. The results of that testing must be scientifically examined, assessed and reported upon by or on behalf of the independent regulatory authority;
 3. The report must be securely recorded;
 4. All of this must occur BEFORE any approvals are provided for any fracking activities to commence; and
 5. The costs are to be borne by the fracking company.

It is imperative that thorough baseline testing is carried out BEFORE ANY fracking activities commence, to ensure those tests of pre-existing water quality are not compromised or contaminated in any way.

- In acknowledgement of the fact that the activity of fracking is inherently risky, there should be a **statutory onus of proof** created in relation to damage claims arising from fracking. The statutory onus of proof should have the following effect:
 1. once a claimant landowner or occupier has established loss or damage
 2. and established that they were in (a certain defined) proximity of fracking activities,
 3. the onus of proof should shift to the ‘fracker’ to establish that they did not in fact cause the claimed damage.

Why should Territorians bear all the risk? These multinational companies, who stand to make massive gains from fracking our land, must be fully prepared to ‘compensate’ us in the likely event of something going wrong. The term ‘compensate’ is used very loosely here, because the reality is that once water or land is contaminated, you can’t un-contaminate it. The damage is irreversible and it’s for this reason that we believe that fracking is too risky and should not be approved in the Territory.

- The creation of a legal regime should be considered, which provides for **statutory regulation** of the terms of **standard agreements** between a landowner and a fracking company, combined with **subsequent judicial approval** of each individual agreement before it can be enforceable. This is to ensure that landowners’ rights and interests are adequately protected, given:
 - the grossly unequal bargaining power between the parties, and that the gas companies have no responsibility to protect Territorian landowners’ interests,
 - that the gas companies insist on the strict confidentiality of their agreements with landowners and that such agreements will no doubt attempt to waive liability on the

- part of the gas company for any subsequent damage resulting from fracking activities, and
- the government considers itself an uninterested/uninvolved party, beyond determining an application or licence to frack.

The story of George Bender is a tragic example of the enormous unrelenting pressure that can be applied by these companies in getting a landowner to give rights over their land, and of the failure of the government to provide any assistance or protection despite repeated cries for help from the landowner. George Bender was a tough and gritty farmer who took his own life as a result of this pressure and abandonment.

- An extension of the above point is the **provision of a minimum of legal advice to landowners** when negotiating with gas companies for access to their land for fracking. Sufficiently expert legal advisors should be made available and their minimum fees covered by the gas companies and/or government. Otherwise what recourse does a landowner have to legal advice when being forced to negotiate with gas companies?
- Landowners (including Aboriginal landowners) should have the **right to veto** access to their land, both initially and again at the stage where a production licence is sought.
- Legislation should provide that there be no fracking operations in **National Parks**.
- There should be a fracking **no-go zone in all flood zones**.
- **Regulatory capture** – the same government department promoting the fracking industry must not be responsible for monitoring and regulating the industry. To allow this is a clear **conflict of interest** and provides no protection to the Territory public or the environment.
- The **NT Environmental Protection Authority** should monitor compliance with the regulatory regime.
- There should be a **right to question the decisions of the Minister**, in particular where the decision of the Minister is in conflict with decisions or recommendations of the EPA.

Environmental impact statements

- Where will the 20-30 megalitres of **water** required for each fracking well be taken from? This information must be provided with every application for a licence to frack. This information must be considered by the Minister in applying the statutory version of the precautionary principle.
- What is intended to be done with the **treated water (flowback)** in fracking activities? Any plans for this should be made public.

- There should be no onsite **disposal of waste** (including water waste) or storage of this in evaporative ponds. It must be stored in sealed tanks before being transported to a waste management facility elsewhere.

But the reality is, there can be no real safe disposal of such contaminated waste water. This is one of the many reasons why fracking is too risky an industry to be allowed in the Northern Territory (or anywhere).

- There should be **appropriate testing of each company's mix of chemical additives** that is proposed to be added to the fracturing liquid. That is, not just a list provided of these chemicals, but actual testing of the mix of these chemicals by the independent regulator.
- **All data** provided by fracking companies must be **digestible and easily accessible by the public**. Multiple volumes of an environmental impact statement do not fit this description.
- Environmental impact statements must be more **holistic** – all operators must come together and put forward a plan for roads, pipeline usage etc and must address issues such as land clearance, pressure on animal species, water and sand usage, etc.

Legacy issues

- **Legacy issues** – who checks **well integrity**? Who maintains it 10, 20, 30 years down the track, when the well has been passed off to a new company? A person or body with a vested interest in the fracking activity should NOT be responsible for monitoring well integrity. However, it should absolutely be at their cost.
- There must be independent monitoring of **fugitive emissions**. Consideration should be given to a maximum loss/emission level which should trigger actions that might include the shutting down of the well if fracking activities are still in operation.
- Some form of **orphan well trust fund** should be established from the outset, contributed to by the fracking companies, to combat legacy issues and subsequent liquidation of gas companies.

Thank you for considering these submissions.


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