

## Evaluating the Environmental Impacts of Fracking in New Zealand

Parliamentary Commissioner for the Environment Dr Jan Wright released her interim report, which evaluates the environmental impacts of fracking in New Zealand, on 27 November 2012. The report concludes that fracking can be done safely if well managed, but raises concerns about the current rules and safeguards surrounding the practice in New Zealand.

The commissioner will now conduct an investigation into how well the environmental risks associated with fracking are actually regulated and monitored, and determine what regulations could be introduced to encourage best practice within the industry.

Also known as hydraulic fracturing, fracking uses water, sand and chemicals to extract otherwise difficult to dislodge gas and oil from shale rock and sandstone. The pressure of the water creates tiny cracks in the rock. The sand holds the cracks open, freeing the oil or gas to flow up the well. So far in New Zealand firms trialling the practice include Todd Energy, Solid Energy and L&M Energy.

### Reaction to the Report

Straterra, the representative group for the minerals and mining industry, have welcomed the report, saying that it provides a common-sense approach to the fracking debate, which was much needed. Straterra Chief Executive Officer Chris Baker stated: "It is important that fracking, like any other resource sector activity that impacts on the environment, is carried out to a high standard, and that we have good regulations in place for that activity. That said, fracking and new technologies have made a major positive impact on the availability and cost of energy elsewhere in the world."

Energy and Resources Minister Phil Heatley and Environment Minister Amy Adams have also welcomed the report, saying it provides a valuable contribution to the understanding of fracking in New Zealand, and supported the highlighting of the need for improved regulation and monitoring where necessary. The Ministry of Business, Innovation and Employment will be preparing a response to the report to inform the commissioner's final report.

In a statement issued after the report was released, Christchurch Mayor Bob Parker has defended Christchurch City's 'frack-free' status, stating that the possibility of 'very tiny' earthquakes justified the decision taken by the council in April 2012 to become the country's first frack-free city.

### Fracking implications under the Resource Management Act

Most aspects of fracking are subject to Resource Management Act 1991 consents on land and within the marine and coastal area out to the 12 nautical mile limit.

The commissioner's investigation identified groundwater contamination as the greatest environmental concern. However, while it found some instances of minor environmental damage as a result of fracking, nothing of major concern was discovered.

When fracking is done well, the chance and severity of environmental damage is small compared to some other economic activities. However, when it is done badly, the risks are higher. It is critical that operations are managed well right throughout the process.

### The establishment of a fracking operation

In New Zealand, several different central government agencies and two levels of local councils have roles in oil and gas production. For any one fracking operation each of these different regulatory agencies is involved in different parts of the process, and each has its own areas of particular responsibility.

Before a company can consider drilling a well for fracking, it must obtain a petroleum permit from New Zealand Petroleum & Minerals. Permits are granted in line with the requirements of the Crown Minerals Act 1991 (CMA).

During the establishment of a fracking operation various types of resource consents are needed. This includes, amongst others, consent for earthworks, discharge of fracking fluid to land and water, and the discharge of

contaminants to air. There will also need to be compliance with various regulations under the Hazardous Substances and New Organisms Act 1996 and the Health and Safety in Employment Act 1992.

Currently, there are potential gaps in the process. These include questions around who takes responsibility for assessing site specific risks from fracking fluid, examining well integrity and the monitoring of abandoned wells.

### **Fracking implications under the EEZ**

The intention of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act (the EEZ Act) is to manage the environmental effects of activities in New Zealand's oceans. The EEZ Act was enacted on 3 September 2012 but will only come into force when the first set of regulations is promulgated. This is expected to be sometime in 2013.

Presently, fracking has not been undertaken in New Zealand waters. However, if it does become a viable activity in the future, applications to the Environmental Protection Agency (EPA) for marine consents to undertake oil and gas production will need to identify all actual and potential effects associated with an activity. This means that any environmental effects of hydraulic fracturing will be thoroughly considered by the EPA before operations can begin, along with any measures that will be taken to avoid, remedy or mitigate those effects.

In addition, any discharge of fracking fluid into the sea from an installation will be regulated under the Maritime Transport Act 1994 through a discharge management plan.

### **Where to from here?**

The next report released by Dr Wright will focus far more explicitly on what specific rules the Parliamentary Commissioner thinks will be required to ensure best practice from firms using fracking and the mechanisms to deliver those rules. This will be released in mid-2013.

With all the contention that is currently surrounding fracking, the introduction of a National Environmental Standard (NES) or regulations to provide national standards would appear to be a way forward for a process that is currently uncertain and complex.

National Environmental Standards are regulations issued under the RMA and apply nationally. This means that each regional and territorial authority must enforce the same standard. The NES prescribes technical standards, methods or other requirements for environmental matters. In practice, the NES is treated like a rule in a plan, and it will override an existing rule which is more lenient. In some circumstances, councils can impose a rule or consent that is more stringent than the NES but only if the standard expressly states this. Options such as an NES will hopefully be assessed by Dr Wright in the next report, and a formal opportunity for public input provided.

For further information please contact Partners Stephen Christensen or Mark Christensen, or Associate Monique Thomas.

## **Contact Us**

### **Mark Christensen, Partner**

Phone: 03 335 1218  
Mobile: 027 487 8611  
Email: mark.christensen@andersonlloyd.co.nz

### **Stephen Christensen, Partner**

Direct: 03 471 5430  
Mobile: 027 448 2325  
Email: stephen.christensen@andersonlloyd.co.nz

### **Monique Thomas, Associate**

Direct: 03 335 1232  
Mobile: 027 656 2647  
Email: monique.thomas@andersonlloyd.co.nz