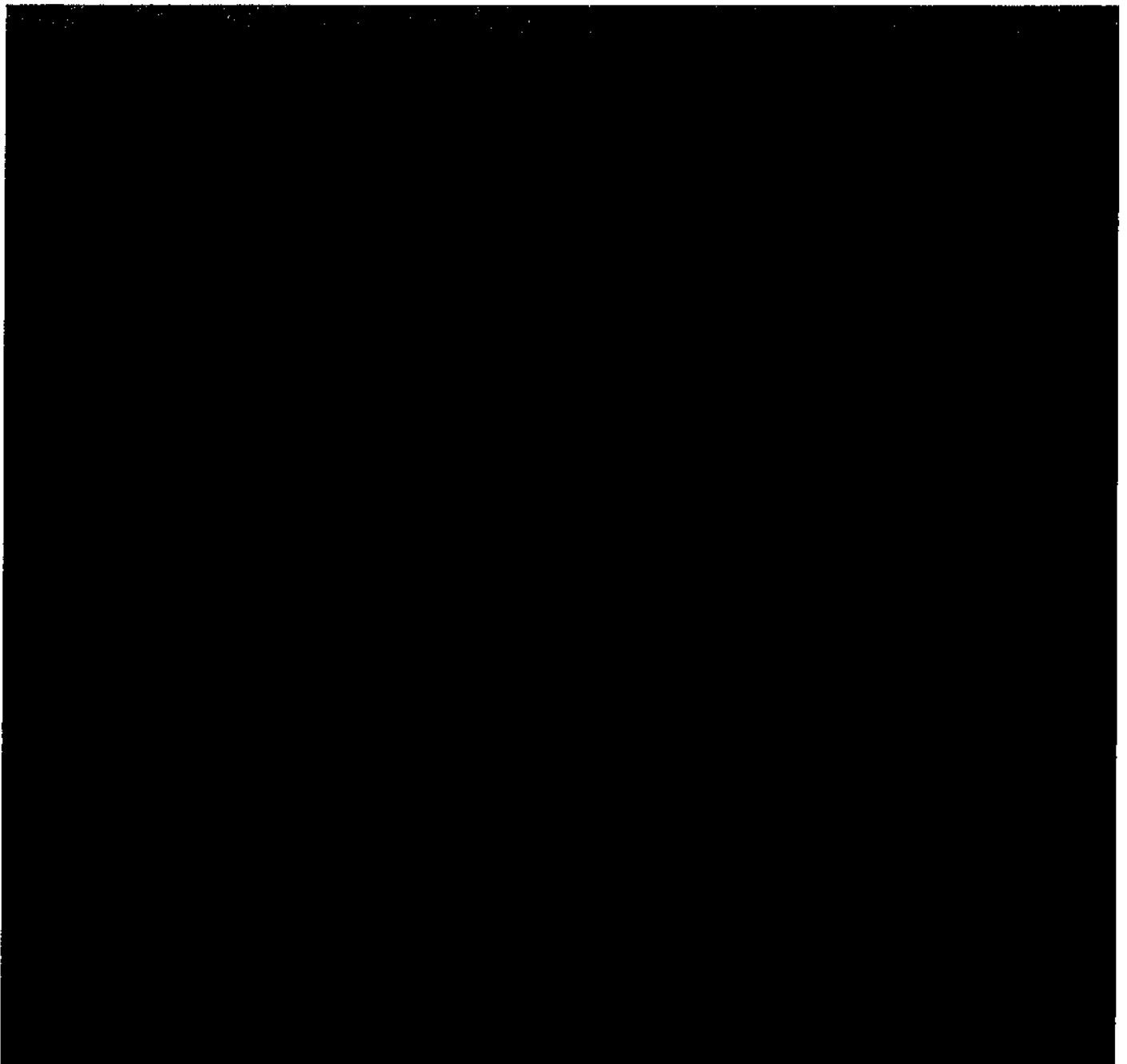


Submission by the Anglican EcoCare Commission  
for the Anglican Church, Diocese of Perth

**Inquiry into the Implications for Western Australia of Hydraulic Fracturing for Unconventional Gas**

September 2013



## **Introduction**

"The earth is the Lord's and everything in it" Psalm 24:1

We believe that a theology of the environment demands that we consider our relationships with one another, as well as with the natural world. We damage our relationships with other creatures when we compromise the integrity of Australia's rarest mineral, water. The mounting evidence from around the world of the negative impacts of fracking demands that we consider whether we are further damaging our relationship with God and His creation.

## **Call for broadened Terms of Reference**

The Commission is concerned that the Terms of Reference of the inquiry do not capture the key risks associated with Coal Seam Gas Fracturing. An expanded Terms of Reference should cover: health, groundwater contamination, air pollution, climate change, regulation.

### Health

Scientists and doctors around the world have pointed to the serious health risks associated with shale gas fracking. Many chemicals used in or released during shale gas fracking operations are known carcinogens and can have long term health effects that are not immediately apparent.

### Groundwater contamination

The European Commission commissioned a thorough 2012 report into the risks that accompany shale gas fracking. The Commission's conclusion: there is an overall high risk of groundwater contamination from unconventional gas fracking activities<sup>1</sup>.

### Air pollution

An inevitable by-product of fracking operations is high levels of atmospheric pollution. Air pollution as a consequence of unconventional gas production has been documented to increase the risk of: Cancers, in particular leukaemia, neurological diseases, impacts to the nervous system, aggravation of existing heart diseases, asthma and other lung diseases, headache, irritation of the throat and eyes<sup>2</sup>.

### Climate change

Western Australia has abundant potential for expanding renewable energy generation, with some of the best wind and solar resources in Australia. Rather than making an 'environmental' case for gas over coal, we should concentrate on the extremely large differences between all fossil fuel types and renewable energy sources.

### Regulation

The Commission is concerned that there is no robust regulatory framework for fracking in Western Australia. The precautionary principle must apply to this industry as to any other, and that proof *beyond reasonable doubt* that there is no risk to the environment or society must be assessed as a matter of priority.

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<sup>1</sup> Broomfield Mark, *Support to the Identification of potential risks for the environment and human health arising from hydrocarbons operations involving hydraulic fracturing in Europe*. AEA Technology, 2012.

<sup>2</sup> Colborn Theo, Kwiatkowski Carol, Schultz Kim, Bachran Mary, *Natural Gas Operations from a Public Health Perspective*, in the International Journal of Human and Ecological Risk Assessment, 2010.

### **How hydraulic fracturing may impact on current and future uses of land**

The Commission are concerned that the *Petroleum Geothermal Energy Resources Act 1967 (WA)* (PGER Act) gives permission for exploration to happen, without consultation or notification on privately owned land. The Commission are also concerned that fracking might lead to the degradation of nearby conservation parks.

### **The regulation of chemicals used in the hydraulic fracturing process**

Chemicals used in gas fracking processes include toxic, allergenic, mutagenic and carcinogenic substances<sup>3</sup>, which even in minute quantities can make water toxic and potentially dangerous.

We are concerned not only with what is being pumped into the ground (fracking fluid 2% chemical) but also, toxic particulates released from source rock after fracking. These flow-back fluids are usually kept in open-air, on-site ponds and can contain harmful substances such as heavy metals, naturally occurring radioactive materials (including Radium, Thorium and Uranium), high concentrations of salts, oils and other contaminants, including arsenic, benzene and mercury.

### **The use of ground water in the hydraulic fracturing process and the potential for recycling of produced water**

The depletion of aquifers is a real and serious threat. With each frack using up to 30 million litres of water, it will not take long before impacts on communities (particularly agricultural) are felt. The use and distribution of groundwater is a social justice issue, and having access to clean, safe drinking water is something that Australians don't want to lose.

### **The reclamation (rehabilitation) of land that has been hydraulically fractured.**

The Commission is concerned that companies are only obliged to 'monitor' sites for two years after well abandonment, and at that point their obligations cease. It is possible that pollution might occur post-well abandonment without anyone knowing, because no monitoring is being done.

The Commission suggests an independently managed, regulated statutory fund be established into which all industries that discharge waste into our environments must contribute a substantial portion of their turnover. This will ensure that industries who pollute will have a form of environmental bond or insurance, to ensure proper and complete clean-up is carried out in the event of an 'incident'.

It is worth stating that just because we can do something, it doesn't mean that we should. Environmental degradation is not simply a scientific or political issue. Greed and exploitation have accompanied and often overshadowed beneficial economic development. Unjust political and social structures have led to displacement of people and to poverty. Many scientific reports are now recommending an urgent transition from the use of fossil fuels to renewables as the dangerous effects of Climate Change become more obvious.

Transformation to wise and sustainable use of the environment is at heart a spiritual matter. Environmental concern is a legitimate and necessary part of a Christian's response to God's loving provision for us<sup>4</sup>. At a practical level we must remember the economy is a subset of the environment not as is often assumed the other way around. We don't want short term gain to end up costing us the Earth!

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<sup>3</sup> Colborn Theo, Kwiatkowski Carol, Schultz Kim, Bachran Mary, *Natural Gas Operations from a Public Health Perspective*, in the *International Journal of Human and Ecological Risk Assessment*, 2010.

<sup>4</sup> *Green by Grace; a report prepared for the General Synod 2004.*

### **About the Anglican EcoCare Commission**

The Anglican EcoCare Commission (AEC) strives to sustain the earth through initiatives that promote environmental responsibility in a range of diverse settings – from worshipping to school and local communities. They do this through education, advocacy and expressions of eco theology.

We are proud to belong to a Diocese that considers the environment as something integral to the life and mission of the Church, as well as central to our spirituality. We act in accordance with the Anglican EcoCare Statute (2006).

Our current policy priorities are sustainability, energy, water and pollution. We hold membership with the Ecumenical Social Justice Roundtable, the Council of Churches WA, and the WA Civil Society Climate Roundtable.

Our commissioners are committed Anglicans, lay and ordained who promote the responsible stewardship of our creation through theological action and reflection.

The Right Reverend Tom Wilmot  
Assistant Bishop of Perth  
Chair, Anglican EcoCare Commission