**OraTaiao oral submission to West Coast Regional Council and Buller District Council on the Mt William North Mining Project**
**(Resource Consent numbers: RC11181/1-RC11181/10, RC11/132A, RC11/132B)**

**Oral submission by Dr Anne MacLennan and Dr Cliff Mason on behalf of OraTaiao: NZ Climate and Health Council, 28th May 2012**

**From Anne MacLennan:**

We should like to affirm our written submission, to emphasise some of our concerns, and to answer questions that you might have for us. You have plenty of background material from the original submission and we are not tabling any further documents today, but would be delighted to provide more of our background evidence at your request.

**OraTaiao: NZ Climate and Health Council** comprises about 150 senior doctors and other health professionals in Aotearoa deeply concerned about the effects of climate change on population health. We are part of a worldwide movement of health organisations and professional groups urgently focusing on the very significant health challenges of climate change, which has in fact, been described as the single largest threat to health this century. Therefore, despite the current legal challenge, we as doctors believe we have a moral and ethical duty to our patients and communities to speak out about coal's effect on climate change and the health impacts thereof.

I work as a specialist in palliative medicine in a tertiary hospital, and part –time on a PhD research project. I will start by outlining our broad concept of health and consider some specific concerns about the impact of coal on health. Dr Mason will then speak.

Our **broad perspective of health**, acknowledges all of the conditions needed for human wellbeing and survival. Determinants of health include the socioeconomic, cultural and environmental conditions as well as individual and lifestyle factors. Conditions include meaningful and *sustainable* employment, social and community networks, education, housing and healthcare facilities alongside clean air, clean water, adequate healthy food, sanitation - and a stable climate. We are totally dependent on a healthy, biodiverse environment.

Then there is the notion of **fairness**. Many New Zealanders like to think that we live in an egalitarian society but sadly we do not. There are significant differences in the social, economic and health profiles both across and within our various communities. Many areas within the Buller district fall into the top quintile for deprivation compared to the rest of NZ. Mining communities tend to have higher deprivation, and more deprived communities tend to have poorer health.

We should be mindful too, of intergenerational fairness. Hence the RMA's emphasis on stewardship and kaitiakitanga to ensure future generations are not denied the conditions necessary to safeguard their wellbeing.

Ethnicity is another factor highly correlated with health. As an example, the West Coast DHB[1] has reported significantly higher rates of hospitalisation for Māori with chronic lung disease than non-Māori. It is additionally worrying that West Coast Māori have worse chronic lung disease than Māori elsewhere in NZ despite similar smoking rates.

[1] West Coast District Health Board (2008) West Coast – Te Tai O Poutini Māori Health Profile, p58

Therefore, considering Solid Energy's application from the perspective of a healthy environment, we can ask:

- Are conditions for the wellbeing of current and future generations being enhanced or diminished?
- Are health disparities made better or worse?

There are widely recognized **health threats from coal**, both direct and indirect, local and global, throughout the coal lifecycle of mining, transport, processing, combustion, and disposal of the end product ash. Reiterating some of this morning's discussion, I am also concerned about the cumulative effects of this application building on previous mining in the area and potentially to be followed by further applications in the future.

**Local effects:**

- Airborne pollution can come directly from the mining process, but is also likely from the increased traffic carrying coal to Stockton, estimated to reach over 700 truck movements daily, and also the trains to Lyttleton. Both the coal dust and diesel fumes and particulate matter are hazardous to health.
- Water contamination: Rainwater reacts with exposed rock and coal on-site to release various toxic elements which can be lost into groundwater. Water pollution is also likely with heavy rainfall washing coal dust and diesel particulates from machinery and trucks into the ground from where it can percolate to streams and eventually to the sea. There is much emphasis in Solid Energy's assessment of air quality[2], on washing away dust and particulate matter with rain or hosing down, but the dust doesn't just disappear. It has to go somewhere, and it's going to end up in the soil, in groundwater. The assessment also refers to matter incorporated in spray in wet weather but can't quantify that. The coal is to be washed at Stockton. I find it hard to believe that the acid mine drainage and toxic washings can be reliably and permanently contained in an area of high and increasing rainfall, likely flooding and potential seismic activity.
- Injuries: despite the best standards of occupational health and safety, it is difficult to completely avoid accidents and injury when working with heavy machinery and with the increased traffic.
- Miners and mining communities have a higher incidence of chronic lung disease and other conditions such as stroke. I note that the West Coast has a higher hospitalisation rate for strokes than the NZ average[3] - and again, Māori fare worse.
- As the mosquitoes which transmit dengue fever are becoming established in Queensland, there is a risk of Australian miners and other workers bringing the disease to the West Coast.
- Once the mining has been completed, you're left with a compromised terrain

**Global effects include New Zealand and the West Coast**

Carbon dioxide ($CO_2$) is released when vegetation is cleared and topsoil removed. There is less sequestration of carbon in denuded sites.

Methane is released on-site when mining coal.

[2] Pilgrim Ron Consulting (November 2011) Proposal to undertake mining activities at Mt William North: Assessment of air quality effects

[3] West Coast District Health Board (2008) West Coast – Te Tai O Poutini Māori Health Profile, p38

The trucks and trains transporting coal and other materials, along with heavy machinery involved are all burning fossil fuels (usually diesel) and emitting carbon dioxide as well as nitrogen oxides and methane. These are greenhouse gases and their effects are global.

Solid Energy has incorporated commendable strategies to reduce (but not eliminate) the local direct impacts of mining, transport and initial processing of coal within NZ, but these are almost irrelevant compared to the enormous damage caused by the effects on leaving our shores which will have significant direct impacts on local importing communities and indirect effects on all of us. It is akin to rearranging deckchairs on the Titanic.

Coal mining and burning is the most potent way of increasing atmospheric $CO_2$, which in turn, is causing altered weather patterns. Despite Kyoto agreements, $CO_2$ emissions continued to rise last year. These emissions give rise to the most significant and catastrophic human health impacts with which local governments such as yourselves will have to deal in future. Flooding, storms, sea level rise, ocean acidification with damage to kai moana, crop failures, water contamination, and displacement of people. Human health and wellbeing are enhanced by economic, social and environmental stability and sustainability, all of which are threatened by continued coal mining.

With continued $CO_2$ rises, there are the immediate impacts of injury, death and damaged infrastructure with extreme weather events.

We're going to have increasing ill health and deaths in those with existing cardiac, lung and kidney diseases, and we already have reports of many deaths caused by heat waves in Australian cities, the US and Europe. Remember that mining communities already have an excess of some of these diseases. Other people will become unwell with infectious diseases including food poisoning, malaria and dengue fever. Nutrition will be compromised as food prices rise. And there are many other health problems.

Although we are all vulnerable, the most susceptible are infants and children, the elderly and debilitated, and those of low socioeconomic status. My patients are on that list. Most of my patients are debilitated, often elderly and many are of low socioeconomic status.

Importantly however, children are being exposed longer to the accumulating damage that climate change is inflicting on the natural environment. Today's children are inheriting a global environment that will expose them to serious risks although they haven't caused the mess. The responsibility to protect and enhance their health therefore lies with adults making decisions on how we manage our resources.

So, **answering the earlier questions:** new coalmining would diminish conditions for the wellbeing of current and future generations and exacerbate health disparities.

I have a responsibility to advise on health threats to my patients. If doctors are aware of an impending pandemic, we are expected to warn authorities and the public, to develop strategies to minimise the number and severity of cases, and to prepare to care for those who do become sick. So it is with coal as an agent of climate change. Climate change is bad for health, and coal is bad for climate change.

I care for people who have serious and life-limiting illnesses. I strive to enhance quality of living and, when the time comes, quality of dying. Sometimes we can prolong survival as well, especially if we see someone early on and can control exhausting symptoms or ease existential distress by addressing the underlying causes. I see individuals and whānau coping with physical and

psychological challenges, and episodes of real suffering, but most people have remarkable resilience. I am particularly upset by unnecessary suffering – when something could have been done earlier to prevent the current distress. It is worse when I meet someone too late, too near death, to be able to relieve their distress significantly. A large part of the palliative care team's job is to support and educate other health professionals to recognise signs and be able to manage symptoms in a timely way.

I am very afraid that we are ignoring the early signs and symptoms of climate change, and perpetuating the underlying causes such as coal mining. It is going to be so much more difficult to cope with the distress which is coming if we don't get our heads out of the sand very soon.

There are substantial and rapidly achievable health and social benefits to be gained in a low emissions society. Don't forget the opportunity costs of developing sustainable new industries and a resilient community.

We have to rapidly reduce GHG emissions. That means **NO new coal mining**.

**OraTaiao requests that the application be declined in its entirety.**