Listen to this CD in your car

Locally produced information about unconventional gas mining:
An educational radio podcast for councillors and others about the prospects of turning our farmland into industrial gasfields.

Dear Councillors of City of Greater Geelong

We commend you for taking time to educate yourselves on the topic of gas mining.

However, at the same time we would like to make you aware that if you rely only on government departments, who stand to gain from royalties, and/or the CSIRO, which has a specialist gas mining unit which is funded by the industry, you can *not* expect to be getting the full picture.

If you would lend us your ears for 45 minutes, for instance on your next car drive to Melbourne or the Surf Coast, then you will hear five experts and two mayors give you an alternative view, independent of the industry.

The ‘audio-postcard’ which is attached on CD, and which we also have emailed to you in mp3-format, is an excerpt of ‘The Sustainable Hour’ which was broadcasted live on 94.7 The Pulse on 30 July 2014.

Feel free to contact us on tsh@climatesafety.info should you have any questions.

Yours sincerely

Anthony Gleeson and Mik Aidt, The Sustainable Hour on 94.7 The Pulse
Interviews and audio-quotes in the hour, in order of appearance:

» **Kieran Kennedy**, mayor of South Gippsland, Victoria

» **Gavin Mudd**, PhD researcher at Monash University, ground water expert

» **Mark Ogge**, researcher and a public liason officer to the The Australia Institute.

» **Cam Walker**, campaigns co-ordinator at Friends of the Earth

» **Chloe Aldenhoven**, Lock the Gate coordinator in Victoria

» **Merryn Redenbach**, paediatric doctor, Doctors for the Environment Australia

» **Danielle Mulholland**, mayor of Kyogle, New South Wales

Music

**Leo Sayer** and The Aussies Against Fracking Allstars: ‘No Fracking Way’ – and **David Holmes**: ‘The Fracking Song’. The songs are available on youtube.com
In summary:

**Reasons why we don’t need to frack for gas**

1) **The local community bears the burden while the profits go elsewhere:**

- Gas prices go up – the gas is exported
- Landscape mutilated by industrial gasfield zones. Tourism ruined. Real estate value drops
- Local pollution and noise 24/7. Risky gambling with drinking water and health

2) **Fracking is intergenerational theft, short-sighted and amoral.** Here’s why:

- It is only profitable because costs of cleaning up and climate damage are not part of the equation
- Gas causes more climate damage than coal and oil when methane and fugitive emissions are accounted for
- Removes focus and economy from the transition to renewables and sustainable jobs
- Unnecessary detour. Fossil fuels are to be phased out
- So-called ‘scientific’ figures are taken out of thin air. Scientists’ statements are for hire.

What drives the gas mining industry forward is a desire to make profits. Local communities in Queensland are seeing the devastating consequences of this industry: Only a few people benefit financially from it, and they are not held accountable by authorities to pay the bills for the damage they create in the ground as well as in the air.
Kieran Kennedy

Kieran Kennedy is mayor of South Gippsland, Victoria

Credit: This soundbite and photo is from the documentary ‘Gippsland Is Precious’ – a documentary by Pennie Brown

“We’ve got a main industry of dairy, beef, and potatoes, the industry is worth billions over years, and it has always been that way. We have very rich soils, and the most important thing of all is our water resources. Coal Seam Gas mining companies can drill within hundreds of meters of any water reserve or dam, so, look – it is just crucial: water is the link of life, and if we let these people in to destroy that for a short term profit and a few fly-in fly-out jobs, our community will just disperse and we will end up barren.”

Kieran Kennedy, mayor of South Gippsland, Victoria

‘Gippsland Is Precious’ is a documentary about Coal Seam Gas mining which explores what is at stake for Victoria’s Gippsland region, and what communities and individuals are able to do in order to stop the invasive gas mining industry. See it on www.youtube.com/watch?v=WH5MS-v2prc

Gavin Mudd

Gavin Mudd is a PhD Researcher at Monash University who has looked into the Sustainability of Mining in Australia, as well as its impact on ground water.

Gavin Mudd talks about the issue with water contamination.

» More info about Gavin Mudd on www.eng.monash.edu.au

Mark Ogge

Mark Ogge is a researcher and a public liason officer at The Australia Institute. He talks about the physical impact on the landscape, the economic impacts, as well as the fact that the gas is for export, and why this will make gas prices go up for us, the consumers. The gas price in Asia is about five times the gas price in Australia. So exporting it is going to triple or quadruple the gas prices here, he estimates.

Mark Ogge says in the interview: “I think the unconventional gas issue is an enormous thing that people have to come to grips with because it’s going to have a huge impact on the area around Western Victoria and also Gippsland if these huge projects go ahead. It’s so important for a number of reasons – the first reason is that the infrastructure is huge.”
If you look over at the US at what they actually look like, a commercially operating type gas or shale gas field has thousands of wells and they tend to be very closely placed – between 500-750 metres between wells – and all of those wells are connected by roads, pipeline and interspersed with water treatment plants, compression stations and all of those kinds of big, industrial infrastructure.

So it has a really huge impact on the physical landscape. If you have an economy that's largely based on tourism, amongst other things, and the landscape is transformed into an industrial landscape, then that’s going to have a big impact on tourism and industries like that, where people come to the west coast of Victoria largely because it’s such a beautiful area. If it’s industrialised, it can have a very big effect.

Now, the gas industry – and sometimes the government – say that we need these industries because they provide jobs and economic benefits, and it is true that these industries do employ some people. But what we need to understand is that they are very small employers overall – the entire oil and gas industry in Australia employs around 0.2 percent of the workforce.

Because of the nature of gas fields, they don’t need very many people to run them, so they are very small employers and, in a local economy, the effect of a big gas project can actually have crowding-out impacts on other industries, so there are some real economic downsides.

Often the benefits the industry claims can be very exaggerated. One of the things you need to understand is that when companies try to get approval for their projects, they are essentially spruiking their projects – so they will try and talk up jobs claims and the economic benefits – and there’s a big tendency to exaggerate those and to use dubious jobs multipliers and things like that, and not talk about the downsides of the negative impacts that gas and big gas developments is having on the rest of the economy.”

“But we see examples, for instance in the United States, where the gas industry moves in on a farm, and this farmer becomes rich…”

“Yes, there are some people who will do well out of the gas boom; some farmers will be paid for gas wells – it won’t be a huge amount – but that is definitely a benefit to those farmers. Some people will be employed by the gas industry, and so there will be some winners, but what you need to remember is there’s going to be a lot of losers.

The first thing to remember is that, because the gas industry is a small employer in the first place, the jobs that it does provide – it actually employs quite a lot of people during the construction phase, which is one odd years – there is a sort of peak of construction over a couple of years, and after that there are very few operational jobs. And when you have a big construction workforce coming in within a couple of years, it’s quite disruptive to other industries.

Most of these workers will be pretty much entirely drive-in drive-out, or fly-in fly-out workers. They are generally not recruited from the local area. And when they are, the
people who are employed are generally highly skilled people. Now, highly skilled people aren’t people who are unemployed looking for work, generally. They are people who are already employed in local industries. So what happens is the gas industry comes in and offers huge pay to the skilled employees who have been trained up by the manufacturing and agricultural industry, by and large, and essentially poaches them from those industries, and that means that those industries, over this two year construction period, have to compete with the gas industry for employees and pay really huge wages – and that drives up their cost and makes it difficult for them to recruit and retain staff. That can have a really devastating impact on some of these industries.”

“But Mark, for instance here in Geelong, we have gas pipes everywhere. All the houses are using gas for cooking and warming their houses and so on, so there’s a lot of infrastructure there already for gas. So doesn’t it make sense to get some gas in there?”

“Well, in terms of whether we need the gas… At the moment the industry is trying to argue that if we don’t mine a whole lot more gas, then there’ll be a gas shortage and gas prices are going up. The first thing to understand is there is no gas shortage. On the east coast of Australia it’s all one big gas network, and for the amount of gas being extracted, is a massive increase. It is historically an unprecedented increase in the amount of gas being extracted through unconventional gas.

Gas demand in Victoria and the rest of south eastern Australia is actually falling, but the reason there is such a huge drive for more gas is to export it through the export terminals up in Gladstone. So this expansion isn’t for domestic consumption. It is for export.

The gas industry argued that we need to extract more gas to keep gas prices down, but it’s a really disingenuous argument because the reason that the gas price is going up is that gas companies are now able to sell their gas to Asian customers, and the gas price in Asia is about five times the gas price in Australia. So they were selling it for $4 a gigajoule, which is just a measure of the amount of gas, in Australia – but they can sell it for $16 a gigajoule in Asia. So that’s a huge incentive for them not to sell it to Australian customers, but to sell it to Asian customers. And what it means is that Australian customers have to compete with those prices.

So, Australian customers who used to buy their gas for $4 will probably now have to pay about $11 or $12, because otherwise the big gas companies are just going to sell it to Asia. The fact that we are exporting the gas is probably going to triple or quadruple the gas prices for domestic customers. And it doesn’t matter how much more gas you drill for – you could cover all of Gippsland and all of western Victoria in gas wells – it won’t bring down the gas price at all, because the reason that gas prices are going up isn’t because of the lack of gas supply, it’s because we are part of a market that is now linked to Asia through export, and our gas prices are linked to the Asian gas market.”

*The interview was transcribed by Elizabeth Hines*
Cam Walker

Cam Walker is a campaigner of Friends of the Earth

“State government and councils need to put good public money into renewables and into transition plans. We throw vast volumes of public money at the pipe dream of “clean coal”. We need to stop doing that. In the last state budget I think we put 100 million dollars into a project called “Gas for the regions” which is about the roll-out of natural gas. We should be putting that money into meaningful green manufacturing transition jobs in places like Geelong.”

Cam Walker, Friends of the Earth

Chloe Aldenhoven

Chloe Aldenhoven is one of the Victorian Lock the Gate coordinators. She's been working in this role 18 months, and she’s seen what she calls “a groundswell of social movement and opposition against the fracking industry.” Mainly because people have seen what is going on in America, and in Queensland.

“People are better informed than the politicians in parliament are.”

“There has been a lot of impact on the fabric of communities in the States and in Queensland that perhaps get a little bit less airtime, but which I think are also incredibly important. Part of that is the psychological impact of the industry, and that is recognised by medical professionals quite a lot.

We do have very unclear finds of the impacts and potential risks of this industry, and that has caused people a lot of anxiety. Especially when they are put in a position where companies are coming in and are organising these access agreements with people without them really having grasped what the full impact of the industry might be on the area. It is dividing communities.

We have seen this happen in Queensland and New South Wales, but also here in Victoria where companies have organised access agreements with people who have been vulnerable or only with a couple of people in the community who haven’t got the consensus with their neighbours and the rest of the community. This fuels a lot of division within the community. It fuels a lot of anxiety.”

Chloe Aldenhoven, Lock the Gate Alliance
Merryn Redenbach

Merryn Redenbach is a paediatric doctor who works for Doctors for the Environment Australia. She is based in Melbourne.

In the interview, Merry Redenback explains about the latest scientific evidence and studies of the negative health effects of fracking. She recommends to take a look at the home page of Concerned Health Professionals of New York on www.concernedhealthny.org

Danielle Mulholland

On 23 November 2013, the people of Kyogle in northern New South Wales, Australia, came together for a moving ceremony to declare their region gasfield-free. Speakers included local and federal politicians, community members, and health experts.

In the documentary about the event, CSGFree NorthernRivers interviewed Mayor of Kyogle, Danielle Mulholland. Here is a transcript of what she said:

“We are seeing democracy in action. We are seeing people flocking to this event to say ‘We don’t want unconventional gas in our area. That is essentially what it comes down to. And as representatives of the people, we should be enforcing that position. So that is why I am here today.”

“They are afraid for the children, their grandchildrens’ futures. They are afraid for their health. Air. Farmland. Water. There are so many issues around Coal Seam Gas that are unresolved.” “The chemicals in particular concern me – in terms of our groundwater. Because without water, we die. That is what it comes down to. Whether it be your cattle, whether it be your crops. Anything. We have talked today about the contamination of these things.”

“The state government has introduced a range of regulations which are the most stringent in Australia whilst at the same time we can acknowledge that governments of all persuasions have a poor track record of regulating industries when questionable promises of large sums of money flow into depleted government coffers.”

“I am proud to represent a community that stands up for social justice and is so committed to preserving its way of life that it demands to be heard.”

Danielle Mulholland, Mayor of Kyogle

www.youtube.com/watch?v=OnHv1wH6WKQ
‘Gasfield Free Kyogle’ - Published on youtube.com on 23 December 2013.
Fred Longmire

Fred Longmire is mayor in Corowa, NSW, where his council has placed a moratorium on fracking.

Corowa Shire has reinforced its position on coal seam gas mining by placing a moratorium on exploration and seismic testing on all land under its care and control.

Corowa’s mayor Fred Longmire echoed concerns raised by the Corowa community regarding the impact of exploration activities on the shire’s valuable groundwater supply and the sustainability of key industries:

“The potential of groundwater and land contamination during the mining process is of major concern to the council and community members. We cannot afford to take any risks with this,” he said.

Corowa council is calling for a full assessment from the NSW government to determine the impact coal seam gas mining will have on the agriculture production and aquifers in the area.

“This is a big issue for us,” Cr Longmire said. “We need to ensure people have all the facts they require to make an informed decision.”

> The Bordermail - 26 July 2014:
**Corowa coal seam gas mining on hold**
*Article by David Johnston*
“Welcome, cruise ship visitors! Would you like to get off and have a walk in our gasfields?”

“The next step is to start talking with other people in the community, other business owners in the community, about what they would want this place to look like in 20 years. Do you want to get off a cruise ship and go for a tour of the museums, or would you like to get off and have a walk in the gasfields? Because that is the step we are really facing. This is about building new with informed choices.”

~ Ross Mueller, in The Sustainable Hour

“If we want ocean liners to reprovision from local suppliers, then we need to protect our farmland. If we want them to visit our arts precinct, then we need to invest in our artists. If we want them to come to the outdoor stadium, then we need to make sure the air is fresh and clean.

Last week I wrote a piece about the possibility of fracking in our town. It must have touched a nerve in Canberra because the chief operating officer of the Australian Petroleum Production and Exploration Association shot off a letter to the editor. This rapid response might give one the impression that the stakes for the future of our city are higher than one first thought.

Nobody wants to get off a cruise ship, take in a show and do a quick tour of a gas field.

Our No.1 priority must be the investment in sustainable industries, based in renewable energy. This will deliver solid, long-term returns and help create a prosperous regional city.”

~ Ross Mueller, a Geelong-based writer, director and Geelong Football Club member

» Geelong Advertiser – 9 August 2014:

**Geelong’s great fracking debate continues to divide locals**

“Picture this: A mining company finds gas locked deep beneath Geelong and the Surf Coast. A mix of water, sand and toxic chemicals is pumped hundreds of metres into the ground, spreading under houses and rivers as close to the city as Highton, Newtown and Grovedale.” Article by Courtney Crane

» Geelong Advertiser – 6 August 2014:

**Primary assets should be top priority, not stadium**

“If we want ocean liners to reprovision from local suppliers, then we need to protect our farmland. If we want them to visit our arts precinct, then we need to invest in our artists. If we want them to come to the outdoor stadium, then we need to make sure the air is fresh and clean.” Opinion-piece by Ross Mueller
» Geelong Advertiser – 30 July 2014:

**Clock’s ticking on fracking so let’s start talking now**

“Last week, Geelong councillors voted to learn more about fracking. They admitted possessing little understanding of the subject, what it does to real estate values, tourism and community health.” Opinion-piece by Ross Mueller

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**Gas causes more climate damage than coal and oil**

**Dr Robert Howarth: Replacing coal and oil with natural gas will not help fight global warming**

“Both shale gas and conventional natural gas have a larger greenhouse gas footprint than do coal or oil, especially for the primary uses of residential and commercial heating.

Dr Robert Howarth, a professor of ecology and environmental biology, came to this conclusion after assessing the best available data and analyzing greenhouse gas footprints for both methane (including shale gas and conventional gas) and carbon dioxide over a timescale of 20-years following emissions. The findings are published in Energy Science & Engineering.

“While emissions of carbon dioxide are less from natural gas than from coal and oil, methane emissions are far greater. Methane is such a potent greenhouse gas that these emissions make natural gas a dangerous fuel from the standpoint of global warming over the next several decades,” said Dr. Howarth.

“Society should wean ourselves from all fossil fuels and not rely on the myth that natural gas is an acceptable bridge fuel to a sustainable future.”


» Wiley’s Global Research – 21 July 2014:

Replacing Coal and Oil with Natural Gas Will Not Help Fight Global Warming
HEALTH CONCERNS

Report from Public Health Association Australia

This is a report that has weight and authority as it is coming from the Public Health Association Australia. This association is recognised as the principal non-government organisation for public health in Australia and works to promote the health and well-being of all Australians.

The report is from 26 April 2013 and is called: ‘The independent review of coal seam gas activities in NSW’ (human health and environment effects).

An excerpt from the first chapter:

Overview of health effects – a framework and summary

“The health consequences of unconventional gas extraction might be framed in a classical medical primary, secondary and tertiary effects manner. Primary are the direct, secondary the indirect, systemic effects and tertiary the flow on effects.

• Primary: **direct effect on air quality** | Cause: Methane, volatile hydrocarbons

• Primary: **direct effect on water quality** (surface and underground) | Cause: Drilling and fracking chemicals. Volatile hydrocarbons and methane from coal. Salts. Heavy / radioactive metals from coal and rock

• Primary: **direct effect on water availability** | Cause: Use of water in production. Inadvertent linkage of aquifers and water loss

• Primary: **direct effect on soil quality** | Cause: Chemical leakage / spillage from production or waste water

• Primary: **direct effect on seismic activity** | Cause: From fracking and pressure changes below ground

• Primary: **direct effect on erosion** | Cause: Increased travel over roads and country

• Primary: **direct effect on spread of weeds** | Cause: From increased vehicle access
Secondary / follow on effects
(Note: these effects arise from several primary effects synergistically)
• Compromise of agricultural land
• Adverse effects on livestock
• Adverse effects on ecosystems and the biosphere
• No reduction in GHG emissions and continued global warming

Tertiary / Flow-on effects on well-being and health
• Conflict in mining affected communities
• Loss of control over access to property
• Reduced water availability
• Fears of loss of land, livelihood and community
• Actual loss of agricultural productivity impacting food security for Australia
• Loss of wellbeing due to concerns about health
• Psychological effects from several of the above sources

Examples of such effects in Australia include:
• Benzene, xylene and toluene were found in monitoring water bores. Connectivity and cross contamination of the Springbok aquifer by the Walloons coal measure was demonstrated post fracking at Myrtle 3.
• There was widespread habitat destruction after a spill in the Pilliga forest.
• There are flammable water bores at Kogan and gas fuelled bush fires at Dalby.
• The Condamine River is bubbling methane along several kilometres of its length.
• There is a cluster of ill health amongst people living in the gas fields near Tara and Kogan. Their symptoms are similar to what have been reported in gas fields in the US. These include daily headaches, epistaxis, rashes after bathing, nausea, eye irritation, metallic taste and respiratory problems.”

[END QUOTE]
Ethics and religious guidance

UNITING CHURCH RESPONSES

In this pamphlet, Uniting Church explains its stand on unconventional gas mining – also known as ‘fracking’ or ‘Coal Seam Gas’. The following is an excerpt of the pamphlet’s text:

• “Be fully informed about the church’s position, the effect of fossil fuel extraction on the environment, CSG processes and dangers, and the local issues in your area

• Inform your faith community, your town and the surrounding farming communities

• Make submissions to the government

• Write letters to politicians and newspapers

• Join or start a group such as “Lock the Gate”

• Attend public protests

• Get your town to vote to be “CSG free”  

Visit www.unitingearthweb.org.au/csg for links to useful organisations for information and support
Dig deeper

» Read more on
www.climatesafety.info/audio-postcard-from-the-future-of-fracking

Headlines on this webpage, among others:
• “It is the future…”
• “Let’s Grow Victoria”
• What they are saying about ‘natural gas’…
• Economy: Compare fracking and renewables
• The growing resistance movement
• A second opinion – from United Kingdom scientists
• Ethics and religious guidance
• Connect to Frack Free community groups on Facebook
• Germany: 600 page report about fracking risks
• Health concerns: Report from Public Health Association Australia
• USA: Letters from over 1,000 doctors
• Water safety: Coal seam gas water monitoring not good enough: chief scientist

» Why you should be concerned about ‘fracking’
Gathering of articles, links and videos
www.climatesafety.info/why-you-should-be-concerned-about-fracking

» The Sustainable Hour on 16 April 2014:
Impacts of unconventional gas extraction
About the seminar ‘Unconventional gas extraction and the social, economic and environmental impacts’ which took place in Melbourne on 26 March 2014. It was transmitted via video conference to 11 different locations in Victoria – one of them at Deakin in Geelong.
www.climatesafety.info/impacts-of-unconventional-gas-extraction

» Home page of community group in Geelong: Frack Free Geelong
www.frackfreegeelong.org
– with pages about health concerns, economic impacts, media coverage, etc