

REPORT OF PROCEEDINGS BEFORE

GENERAL PURPOSE STANDING COMMITTEE No. 5

INQUIRY INTO COAL SEAM GAS

CORRECTED PROOF

At Alstonville on Wednesday 21 September 2011

The Committee met at 1.30 p.m.

PRESENT

The Hon. R. L. Brown (Chair)

The Hon. J. Buckingham
The Hon. R. H. Colless
The Hon. G. J. Donnelly
The Hon. S. MacDonald
The Hon. Dr P. R. Phelps
The Hon. P. T. Primrose

CHAIR: Ladies and gentlemen, welcome to the first public hearing of the inquiry by General Purpose Standing Committee No. 5 into coal seam gas. The inquiry will examine the environmental, economic and social impacts of coal seam gas mining in New South Wales. Before I commence, I acknowledge the Bundjalung people, who are the traditional custodians of this land. I also pay respects to the Elders, past and present, of the Bundjalung Nation and extend that respect to other Aboriginals present. Today we will hear from representatives of several local councils as well as representatives from the Norco Co-Operative Limited, the Group Against Gas—Kyogle, the Keerrong Gas Squad, and the National Toxics Network Inc. We will also take evidence from local residents and landowners. In addition to today's hearing, the Committee will hold public hearings in Taree, Narrabri, Bowral and at Parliament House in Sydney.

Before I commence, I will make some brief comments about the procedures for today's hearings. Firstly, in relation to broadcasting guidelines, copies of the Committee's broadcasting guidelines are available from Committee staff. Under those guidelines, while members of the media may film or record Committee members and witnesses, people in the public gallery should not be the primary focus of any filming or photography. I also remind media representatives that they must take responsibility for what they publish about the Committee's proceedings. It is important to remember that parliamentary privilege does not apply to what witnesses may say outside of their evidence at the hearing, so I urge witnesses to be careful about any comments they may make to the media or to others after completion of evidence, as such comments would not be protected by parliamentary privilege if another person decides to take action for defamation, for example.

In relation to adverse mention, Committee hearings are not intended to provide a forum for people to make adverse reflections upon others. The protection afforded to Committee witnesses under parliamentary privilege should not be abused during these hearings. I therefore request that witnesses focus on the issues raised by the inquiry's terms of reference. In relation to audience comment, we are aware that people hold very strong views about coal seam gas. There is a great deal of interest in the issue and the issues being examined by this Committee, as demonstrated by approximately 900 submissions we have received to date. The primary purpose of this hearing is to give individual witnesses, and in the case of councils and other organisations those organisations, an opportunity to give their evidence before the Committee. Although this is a public hearing, it is not an open forum for comment from the floor. Only questions from the Committee and the evidence of the witnesses are recorded in the transcripts. Audience interruptions are not recorded and may make it more difficult for witnesses to fully express their views.

In relation to the delivery of messages and documents tendered to the Committee, I advise witnesses that any messages should be delivered to Committee members through the Committee staff. In relation to relay of proceedings and refreshments, Committee proceedings can be viewed from a screen located in two of the nearby courtyards. Please also note that a full transcript of the hearings will be prepared by our Hansard reporters and will be available on the Parliament's website by the end of this week. Light refreshments are available for audience members. I ask everybody to turn off their mobile phones for the duration of the hearing.

JENNIFER RAE DOWELL, Mayor of Lismore City Council,

WAYNE STANLEY HALCROW, Director—Corporate Services, Richmond Valley Council, and

JANET WILSON, Deputy Mayor, Kyogle Council, affirmed and examined:

GARY MICHAEL MURPHY, General Manager, Lismore City Council,

PHILLIP WARREN SILVER, Mayor of Ballina Shire Council and President of Northern Rivers Regional Organisation of Councils [NOROC], and

JOAN van LIESHOUT, Councillor, Tweed Shire Council, sworn and examined:

CHAIR: Because there are so many of you representing different councils, we will quickly move through so that each group or each individual representative of a council can make a brief opening statement. If you take five minutes each, we will probably have some time for questions.

Mr HALCROW: I appreciate the opportunity to make a submission and appear as a witness here today before the inquiry. I do have some minor additional points to make in regard to our submission. Would you prefer that I make those at the end of my discussion?

CHAIR: Yes.

Mr HALCROW: Thank you. I believe that the council's submission is a balanced one, recognising the increased regulatory role required by the State Government in regard to the industry and at the same time the economic advantages that may be available to local communities through the emerging of the eventual natural and coal seam gas as an energy source that is an alternative to coal-produced electricity. Development of the industry at Casino is also supported by the State Government prior to P6, which is detailed in the State Plan. That has been detailed in the council's submission. It is also supported by the Richmond Valley Council through development with its community of the strategic plan, which provided direct input from the community, and which the community identified as an opportunity to progress with industrial development through the area.

It is also supported by the Federal Government through its Keep Australia Working program and the council's own economic development strategy, which incorporates significant venture support in dealing with two specific industries covering coal seam gas and intermodal freight facilities. It has long been recognised that there is a socioeconomic disadvantage within the council's area. The council has considered that needs to be addressed as best as possible and has recognised the opportunity of this emerging industry in the area, its industry development and potential growth for further population and economic benefit to the community generally. The comments in regard to the submission relate generally to council's involvement with the firm Metgasco. There has been little involvement with any other firm so the experiences that we have had are based on the council's involvement and the community's involvement with that company.

The comments I wish to make include just a comment in relation to the submission. There is a part of that submission which relates to a European company that is trying to develop within the Casino area. Following my completion of that submission and sending that in, I inquired of the Department of Trade and Investment in regard to that firm and the potential development. They have advised me that that firm, which was to locate to another area in the State, did not. So what happened was that that firm did not come to Australia, and basically it is a loss to the Australian economy in that regard. The other thing is a small typographical error on the third paragraph of page two, where it deals with the New South Wales State Government plan priority. It shows in brackets there "page 6", but the document itself refers to P6. I have a copy of the document that I can leave with you.

CHAIR: Would you care to table that document now?

Mr HALCROW: I will.

Document tabled.

CHAIR: I will let witnesses know that if they have a written opening statement and they do not manage to get through it because we run out of time, they are welcome to table that document and it will be included as part of the record.

Ms DOWELL: I will be presenting for the Lismore City Council, and I have copies of my statement for each member of the Committee. The Lismore City Council welcomes the New South Wales Legislative Council's inquiry into the impact of coal seam gas and the invitation to local government to present at today's hearing. We acknowledge that this hearing is held on the land of the Bundjalung people, who have cared for the people, the land, the food and water for tens of thousands of years. We pay our respects to the Elders, past and present, and are committed to working with them to ensure that future generations can live in harmony with this land. At our 14 December 2010 meeting, the council resolved to:

1. Unreservedly support the request of the NSW Farmers Association for a moratorium on all Coal Seam Gas ... mining in NSW.
2. Write to the Premier and the Minister for Environment Climate Change and Water as well as the Leader of the Opposition, the Shadow Minister for the Environment and Local Member to strongly urge a moratorium on CSG mining and particularly the practice of hydraulic fracturing in NSW until an extensive and independent environmental impact statement has been concluded on the effect of CSG mining on the environment and in particular the effects of CSG mining on groundwater.
3. Write to the Prime Minister, Federal Minister for the Environment and the Local Federal Member as in point 2.

In January this year the council wrote to the then New South Wales Government calling for that moratorium. We welcome the decision of this Government to uphold that moratorium. The concerns of the council reflect the diverse concerns of the Lismore community. This submission focuses on the questions which need to be better understood for people and the council to make an informed decision on the future of coal seam gas [CSG] within our community.

The environmental impact of coal seam gas activities are, firstly, produced water. The council understands that extracting coal seam gas requires the removal of large volumes of generally saline produced water from the coal seam. It is further understood that the produced water is either reinjected underground, released into streams, used by irrigation or sent to evaporation ponds. How will this waste material be managed in the Northern Rivers? Will it be stored, treated, disposed of and/or reused? Coal seam gas water is generally high in sodium and contains many contaminants. Each megalitre of associated water brings up five to eight tonnes of salt which was previously stored safely underground. The Queensland Government estimates that 630,000 to 1,728,000 tonnes of salt will be extracted per year from produced water. I have a copy of this.

The Hon. RICK COLLESS: Perhaps Councillor Dowell could circulate that now.

Ms DOWELL: Yes, certainly.

CHAIR: Would you care to table that?

Ms DOWELL: There are nine copies.

Document tabled.

Ms DOWELL: I am conscious of the time. Queensland also has banned the evaporation of this water from large dams. Evaporation ponds would pose an added high risk in the Northern Rivers due to our intense rainfall events and the high probability of evaporation ponds overflowing and contaminating natural watercourses. It is understood that if untreated coal seam gas water comes into contact with high clay-content soils, such as those in the Northern Rivers, the soil becomes impervious to water, rendering the soil useless for agriculture. In addition to salt, produced water may also contain heavy metals, carcinogens such as benzene, toluene, ethyl benzene and xylene, and radioactive chemicals that are naturally present in coal seams. Some of these highly toxic substances bio-accumulate; that is they become concentrated as they move up the food chain. What is the commitment to finding proper treatment methods for this water and what are the risks of reinjecting it underground? What are the volumes that will be produced? If any additional water is required at the site for the drilling process how will that water be sourced and transported?

Groundwater: Council understands that bores and gas wells pierce all geologic layers between the surface and the bottom of the shaft, including the aquifers people rely on for drinking water and stock or

irrigation supplies. There are over 1,000 licensed bores in the Richmond River catchment for domestic use, stock and irrigation. In terms of ground water supply, council has concerns that the extraction of associated water can lower water levels in adjoining aquifers, particularly because there is connectivity between different aquifers, but the extent to which groundwater sources are connected to surface waters is poorly understood. Council believes there is a high chance of groundwater supplies being diminished as aquifers adjacent to coal seams and alluvial groundwater connected to coal seams are drawn down during depressurisation of the coal seam.

In terms of groundwater quality, council has concerns that groundwater will be at risk of contamination from either the mixing of previously contained aquifers, the use of chemicals in hydraulic fracturing, the chemicals naturally present in coal seams or even the gas itself. This could happen regardless of the site of the well, meaning that groundwater may be contaminated at some distance from the well site. It is understood that 10 to 40 per cent of wells in Australia are expected to be fracked. Fracking ingredients include acetic and boric acids, bleach, caustic soda, detergents, and polish and hydrocarbon derivatives. Many of these cause health problems. If the fractures intercept existing fissures or faults, fracking fluids, saline water or gas can move into other geologic layers, risking contamination of groundwater supplies.

CHAIR: Excuse me for interrupting but we are going to run out of time. Could I ask you to summarise the rest?

Ms DOWELL: I will summarise the rest. Other points include methane leakage. We understand that methane leakage can occur from unsealed or inadequately sealed mines. As it is a major contributor to greenhouse gases we are concerned about that. We are deeply concerned about the economic impacts. This is an area that is highly productive agriculturally. We are moving towards securing our food future but we have the reliable rainfall and rich soils to produce food elsewhere. There are the effects of the loss of prime agricultural land that is protected so well under our local environment plan and under State environmental planning policies. That would seem to be at risk if mining occurs without intense scrutiny.

This is the Green Cauldron and we are aware of the impact of coal seam gas mining on our tourism and marketing image. We are concerned about landholder agreements, the size of the one-hectare pads, the access roads and pipes and the certainty landholders have with regard to the use of their land now and into the future. We are concerned about the pipes, roads and infrastructure on a regional transport basis and the impact on natural environments, including our national parks, from transporting those things. We are concerned also about the social impacts. There are misconceptions and confusion about landholder approval and the rights of landowners to refuse access for exploration and mining. That must be addressed.

We are concerned about noise and light from operating drills and the impacts due to the close proximity of properties and residents in the Northern Rivers, as well as things like dust and fumes. Landscape amenity is a major issue in this area and it impacts on our densely populated communities. We are also concerned that we have a poor community. On the whole our incomes are much lower than the State average. It would be very tempting for residents to accept initial payments only to find their property is worth less in the future. That creates a risk for community harmony when one farmer or property owner accepts the money and another does not.

We are proud that our postcode has one of the highest take-ups of solar power in this area. We are concerned that this move towards accepting more coal seam gas mining will distract us and the industry from investment and commitment to renewable sources. In conclusion, I go back to our call for a moratorium and ask for a moratorium to continue until all questions are answered and coal seam gas is proven safe.

Mr SILVER: Thank you for the opportunity to address the inquiry. I speak this afternoon as the mayor of Ballina and as president of the Northern Rivers Regional Organisation of Councils [NOROC]. I do not see any particular conflict there because I believe their views are the same. Both NOROC and Ballina have resolved to support the NSW Farmers Association in their request for a moratorium until gas extraction is proven safe. I recognise an inconsistency in that resolution; similar to climate change, fluoridation and other scientific matters there probably never will be a unanimous scientific view. That is one of the dilemmas we face. I can state categorically that the majority of our community have great concerns about the impact of coal seam gas extraction, particularly in the context of groundwater and the interface between groundwater and surface water and the damage it could do.

I do not have the sense that the majority of my community wish to change the status quo of the resources belonging to the Crown. However, if surface assets, whether private, community or environmental are to be impacted there should be more than adequate compensation. Certainly people who own those assets, including the broad community and the environmental assets, should operate on a level playing ground. We have a sense that sometimes that is not the case.

I think it is fair to say that coal seam gas extraction has crept up on us to some extent. We first became aware of it in our region two or three years ago and generally it was applauded as being a desirable thing in terms of jobs and the economy. I believe that subsequent to that our community has become increasingly aware and concerned about the consequences. There are some specific concerns for local government in the context of our obligations to provide infrastructure and the way revenue and royalties are struck and flow back to the broader community.

I make this observation about the mining industry, particularly the exploration industry: It does seem to me that in many ways it is acting under very old legislation and possibly without the transparency that applies to other issues. I can understand in the context of exploration that licences are issued to encourage people to explore but I think we must be approaching a situation where the Environmental Planning and Assessment Act should apply and even the exploration should have to have an environmental impact statement and a review of environmental factors.

There is an asset that belongs to the Crown and to the people, whether you call it the Crown, the community or the Commonwealth. I do not think there is a move for a change there. We are advised that coal seam gas energy is a low carbon energy that will have benefits, but I understand that is only applicable if it is used locally. Could I be so bold as to present a personal point of view of an option for going forward? We should be focusing on a regional basis. Only where a region has been declared safe in terms of geotechnical factors, hydrology, interface with ground and surface waters and the agricultural and environmental assets that exist on the surface, and the area has been declared suitable and appropriate, should that exploration be allowed to proceed. Councillor Dowell has enumerated all of the issues in our submission and we rely on our submission. I believe they revolve mostly around the community's concern that the environment is going to be adversely and permanently impacted.

Ms van LIESHOUT: This is an issue of vital importance to the Tweed community which has serious concerns over a number of coal seam gas issues. It is also a significant issue for council, which finds itself in a difficult position. As a consent authority, it has no jurisdiction over exploration actions and the extent of its approval powers on specific production projects is unclear. As a landholder, it has the same rights as other landholders over whose property a petroleum title has been granted and it is unlikely that council could exclude the holder of an exploration licence from council land. As a water supply authority, it appears that council has no additional rights regarding coal seam gas works. As a determining authority, council could only refuse access under a part 4 determination. However, given most coal seam gas projects are State significant developments, council would have no jurisdiction to refuse a project. Furthermore, council does not have the internal expertise to fully assess the technological impacts.

Council determined by unanimous decision on 16 August 2011 to place a moratorium on coal seam gas activities on council-owned land until such time as council is satisfied that the impact of such activities can be appropriately managed. Prior to that decision, and in response to initial concerns surrounding coal seam gas activities in the Tweed, council unanimously determined on 19 April 2011 to provide a submission to the draft New South Wales Government coal and gas strategy advising the Tweed community has serious concerns over the prospect of the Green Cauldron being utilised for coal seam gas exploration and production because of the lack of clear and understandable advice and information about the technology and its impacts on the environment, amenity, landholders and water quality. It called for a moratorium for the whole of Tweed shire in relation to coal seam gas exploration and that we write to the State members for Lismore and Tweed and the Federal member for Richmond advising them of council's decision to seek their support.

In general terms the Tweed region is a new, about-to-grow region. We are designated to be a major growth area in Australasia. Our main economic growth, as determined by our recent community strategy plan, is virtually tourism and recreation—the fact that we are in a major area of the Green Cauldron and the caldera and being placed in a World Heritage listed area. Most of the entitlements for petroleum and coal seam gas are actually in the Green Cauldron area. Our concerns are mainly the fact that as we see our brand as "Tweed Naturally" and our new economic growth and future tourism prospects are based on that brand, coal seam gas certainly does not go with that natural brand. Our main thrust will be in agriculture—food production, food

manufacturing and food-related tourism—and we are also appealing for a health industry as part of our major economic growth, and our tourism and recreation. From that perspective we have a large sugar industry which will be impacted, but our concerns are mainly for the water that we have freely; we have probably the largest rainfall in northern New South Wales. We are concerned about the cumulative impact on our community who are very much against this.

Ms WILSON: Thank you for the opportunity to speak to you on behalf of Kyogle Council and the constituents it represents. Council would like me to confirm our commitment to a moratorium on the coal seam gas industry. We are of the view that it is the role of the State Government to undertake substantial research into the environmental and health impacts of the activities of the industry. We would like to see that this research provides a benchmark by which technologies employed and activities undertaken can be measured and that these measures should be reflected in policy, legislation and regulation. I have provided enough copies of my submission for each member of the panel and so I am not going to provide detail. I want to focus on a couple of issues.

Council recommends that the State Government should review the Mining Act to provide legislation and regulation that will underpin future coal seam gas mining activities and reflect modern social, economic and environmental standards. We are of the view that the coal seam gas industry should be subject to the same controls as any other development and it is important to us, in terms of being a key player in infrastructure and development, that the role of local government is clarified. We think that it would be a good thing if a State policy is developed in relation to water management and the coal seam gas industry. That would allow further discussion and research on how the industry will impact on the role of local government in future and the many health and environmental aspects that have been raised by previous speakers.

In particular I want to raise the matter of the Lions Road on behalf of our constituents. The Lions Road is special, not necessarily because of the way it looks but because it is a road that is a community road. It is owned by Kyogle Council and the Lions Club, therefore it is a community road. It does not appear on the State road register and it is funded by us as a community. It has a special place in people's hearts because of that. It was developed to provide the community with social and economic benefit in relation to transport between the Kyogle municipality and southern Queensland which it borders. So it is a valuable asset. It is an asset where it is proposed that a gas pipeline would follow and we have serious concerns.

Council at this stage would be thinking that the proposal to use the Lions Road as a pipeline route should not proceed until further research, legislation and discussion occurs with council. The other matter that council wished me to raise with you was that we will provide a comprehensive submission to the inquiry. It may not meet your deadline and we would seek your indulgence with that, but we believe that we have some valuable information in relation to cross-border issues and infrastructure.

CHAIR: These inquiries are about getting as much information as we can so I am sure the Committee will extend the deadline.

The Hon. PETER PRIMROSE: Perhaps if I can ask just a general question to anyone and that is tourism. We have heard about various economic, social and other impacts, but particularly relevant to this area—and we have heard for instance from the Tweed—is tourism. I was just wondering whether people could expand on their concerns and what they believe would be the appropriate steps that need to be taken to mitigate those concerns.

Mrs van LIESHOUT: From the perspective of tourism, because we are the point of difference from the Gold Coast, our future depends on being that difference. It certainly is going to take a few years to grow and become a major area for tourism. However, our tourism is going to be related to food and food production. We already have an organic industry, which is just beginning. We have the potential with agriculture to supply food to the Gold Coast restaurants as much as our own. The only way we can see forward to retain what we have environmentally and from a landscape perspective is to go for a passive industry. So our tourism is mainly going to be more passive—definitely not like the Gold Coast. The point of difference is the green cauldron and walking tracks. The exploration targets are in the areas where our ecotourism will be, so for us that is going to be a major impact.

The Hon. GREG DONNELLY: My question is a general question, which each council represented here might like to answer.

CHAIR: Or one of them.

The Hon. GREG DONNELLY: Or one. From reading the submissions and listening to what you have said today I am trying to understand whether there are any circumstances in your view whereby your respective councils would accept coal seam gas mining? Can I just give you an example: Some of the submissions talk about the concerns and say maybe, if the mining was proven safe, but other elements of the submission talk about things that have nothing to do with safety, but which reflect opposition. So my question is: Really and truly is there any preparedness at all by any of the councils to support coal seam mining gas?

Ms DOWELL: Frankly, no. My reason for saying no is that I do not think our council at this time could support it not even if the actual mine and well and onsite were safe, because the transport of that gas by the pipeline would have a major environmental impact on our community. And because we are looking very much towards renewable energy, now to be mining another finite resource seems to be glancing backwards.

Mr HALCROW: Our council has basically supported this industry in its submission but it has qualified that support. In June this year there was a resolution of council which said that council encouraged the New South Wales Government to continue with the formulation of a policy or a strategy on the control of the development of the coal seam gas industry in New South Wales. So it is a qualified support, but it does support the development of that industry for the very reasons outlined in that submission.

CHAIR: As this is a pivotal question, would any of the other councils like to put their position on the table?

Mr SILVER: This comment is in respect to Ballina Shire Council and not in respect of the Northern Rivers Regional Organisation of Councils, which has not debated this issue. I think I can say on behalf of Ballina that if our region—not just our shire—had been investigated from a hydraulic, geotechnical and structural point of view, if it was declared by a qualified State Government as being safe, and suitable conditions were provided in terms of dust and noise and transport, then I think Ballina council would welcome the environmental and economic benefits that would flow.

Ms WILSON: Just in regard to Mr Primrose's question about tourism—and it relates to your question as well—if we think about the Lions Road and the pipeline, our information is that it would take 2,500 wells at least to feed that pipeline. There are questions about proliferation of that size in sensitive environments. We are a home to national parks and we are looking to tourism to underpin our economy. We would have questions about whether 2,500 wells in our small valleys are actually going to contribute to that and I think the answer is no. I think for local government we need always to reference back to the council chamber and to the constituents we represent. So it is not possible today to say yes or no definitively for ever after.

I guess what we would be saying from Kyogle today is that we confirm our commitment to a moratorium. We want better research, we want safe research that is independent, we want it to be seen as transparent and that it is used to underpin a system that looks at what we need for the future. It is about sustainability. This industry, as I understand it, has a 30-year lifespan, so when you balance those things up all communities would have to consider that at the time. Those are the things that are foremost in people's minds.

The Hon. JEREMY BUCKINGHAM: My question is to Mr Halcrow. Considering that the Richmond Valley Council was the only Northern Rivers Regional Organisation of Councils member to put a submission to the inquiry that was supportive of coal seam gas, and I note it is the only representative here who did not send an elected member, how does the council reconcile its submission, which is supportive and indicates it has been a long-term supporter of coal seam gas, with the Northern Rivers Regional Organisation of Councils submission that we have just received that raises a whole range of social, economic and environmental concerns about coal seam gas?

Mr HALCROW: In my opinion the council as a council is entitled to its own opinion. In that regard it has raised that and made that submission on its own behalf. I am not privy to the discussions of Northern Rivers Regional Organisation of Councils or what occurred at that meeting that made a decision to do so. We have representatives on the Northern Rivers Regional Organisation of Councils. I am not one of them. But all I can say is the council chose really to make a submission on the basis that it is supportive of qualified industry development because of the benefits that it perceives for its community.

The Hon. Dr PETER PHELPS: Just going back to the submission from Northern Rivers Regional Organisation of Councils about the need to prove safety, you can certainly prove something is unsafe but some people might say proving safety is quite a difficult task. So if I can get back to council, what is the sort of legislative regulation framework that you are looking at that would give you some assurance that the safety of the operations is there?

Mr SILVER: I must say again that the comment in terms of qualified support came from Ballina, not from the Northern Rivers Regional Organisation of Councils. I walk two paths. If the risks or the perceived risks in respect of the environment, the interface between groundwater and surface water and doing permanent inalienable damage to our agriculture and surface environment, in our particular region had been looked at and those identified risks had been analysed and found to be non-existent, then it seems to me that an area that had qualified under those conditions might be said to be a place where it is suitable to explore for coal seam gas.

The Hon. Dr PETER PHELPS: Just further on that point: Councillor Wilson, you cannot prove safety but if the State Government were to put in professional scientific evidence that showed no significant matters of concern, would Kyogle then be willing to support it or is it just a blanket opposition to coal seam gas?

Ms WILSON: I am not in a position to answer that question today. I would need to take that back to the council. Given that you have now asked that question, I can report that back, and in our submission perhaps we can address that to some extent. But I think one of the difficulties that we face is that, at the moment, industry approaches individuals or local government with its own research. It somehow relates to the old-fashioned idea of, "Trust me, we're the experts." It would be fair to say that today people expect much more than that.

The Hon. Dr PETER PHELPS: My problem with this point is just this: If the Government were to undertake comprehensive research in relation to the safety of the matter and if it were to come back with a view that it is relatively safe, then the argument thrown against the Government would be, "Oh well, you're getting royalties from this, and so therefore we can't trust or research." So it becomes a never-ending spiral of, you know, "We're looking for research that supports our view", and of course we do not have any.

CHAIR: Order! There is argument contained in that question, so we will move on.

The Hon. RICK COLLESS: I take this opportunity to ask Councillor Silver a question regarding his submission in which he stated that the asset belongs to the Crown. I think you all recognise that there is a considerable asset below the ground in coal seam gas. Do you have any suggestion for the Committee as to how that wealth can be better distributed throughout the community? Will you make some comments on the potential impacts that you are seeing in your local government area?

Mr SILVER: Can I perhaps answer it this way: Maybe it is analogous to the upgrade of the Pacific Highway that has to go through a farm that might have been with five generations since selection, but the broader community needs that house to build a highway. Clearly, the people who have lost that historical traditional asset should be compensated, and probably should be compensated at a premium. If the Crown requires the State to take away private property or to compromise the environment—and I am not sure I can mix the two issues, so let us just talk in the context of private property owners and dislocation to the farm and that sort of thing—if that dislocation is to occur, then the private property owner on the surface needs to be totally compensated and not be rolled over. We have the perception that that may be the case under the present arrangements.

The Hon. RICK COLLESS: What about the distribution of wealth? At the moment the Crown collects the royalties. Do you envisage any better model for the distribution of royalties?

Mr SILVER: I think it would not be impossible to have in the royalty calculation formula an allocation of a certain amount of money to Macquarie Street and a certain amount of money to the local council that has to provide the roads, the bridges and the facilities.

CHAIR: Are you referring to the Western Australian model where a certain percentage of all royalties goes directly to local government?

Mr SILVER: I have seen where it can go.

CHAIR: Ladies and gentlemen, we have run out of time. I thank all the council representatives and the elected officers for attending today to give their communities' thoughts on this matter. By all means, if there are matters that have been raised across the table to which they wish to add further comment in written submissions, please feel free to do so. Councillor Wilson, if you are taking something back to your council, as I said earlier all of these determinations and the record will be put on our website within a couple of days, so that is something by which you can confirm what was said and what was not said, and you will be able to ask the questions of your council. Thank you very much for attending.

(The witnesses withdrew)

JOANNA LIZA IMMIG, Coordinator, National Toxics Network Inc. and

MARRIAN ELIZABETH LLOYD-SMITH, Senior Adviser, National Toxics Network Inc. affirmed and examined:

CHAIR: Would either of you, individually or jointly, care to make a brief opening statement? If so, please confine it to approximately five minutes, if you can.

Ms IMMIG: Marrian will give our opening statements, and I would like to table our presentation.

Document tabled.

Dr LLOYD-SMITH: Thank you for the opportunity of allowing me to address you today. We have a short presentation to which I will briefly speak: I know many of the things you have probably heard from others as well. For those who do not know us, National Toxics Network is a not-for-profit non-government organisation [NGO] representing organisations across Australia and the Pacific that are all connected to a toxic-free future. Our research has identified a number of environmental health concerns related to coal seam gas [CSG]. This has led to our call for a comprehensive hazard assessment for all chemicals used in coal seam gas activities, for a comprehensive environmental health assessment of all releases and impacts of the industry and, most importantly, a full life-cycle analysis and cost-benefit assessment for us to really gauge the real benefits and the real costs of this industry. We would like to see that include things such as the need for local governments' increased landfill capacity and of course the assessment of the carbon footprint of the industry.

In late 2010 the National Toxics Network commenced a review of a number of industry documents. We also consolidated the information from the publicly available regulatory information and from the scientific literature. I would just like to quickly summarise these. Certainly what was clear was that when it came to chemical use in coal seam gas, in certain cases very large quantities of chemicals were used. In one assessment it was 18,500 kilograms of chemical per well with 7.5 tonnes remaining in the formation. These chemicals covered everything from surfactants to biocides to corrosion inhibitors. Many had short-term, long-term health-effect warnings on their material safety data sheets and, worryingly, a number or the vast majority of them had little if any environmental toxicology or any environmental fate data. Importantly, only two out of 23 of the most commonly identified fracking and drilling chemicals had been assessed by our national regulator, and neither for their use in coal seam gas.

I know industry has quite often said that the chemicals they use are soft and that they are somehow consumer chemicals, but we would suggest that on looking at their literature there are a range of very serious toxic hazardous chemicals. I have provided a list in my document and they are in our report, so I will not go through them, but basically they include carcinogens, reproductive toxins, endocrine disrupters and sensitisers. Importantly, earlier this year the New York State University announced that a number of the chemicals used are dangerous at levels at or below levels of detection. So just because they are low levels, that does not mean they are safe. I would like to just touch on BTEX, which comprises benzene, toluene, ethylbenzene and xylene, because there is some information that has come out since our submission. We were certainly not surprised to see BTEX turning up in the Arrow Energy monitoring wells at six to 15 times drinking water standards. BTEX, while it can be banned in fracking products, that does not address the release of them in the natural coal seam.

We believe coal seam gas is a significant threat to Australia's valuable groundwater and surface water. Certainly in our submission we quote from the Shenhua Watermark Coal statement of environmental effects, which also acknowledges this. It is good to see industry doing that. As you know, coal seam gas produces—well, it uses—large amounts of water and it produces a large amount of produce water. That of course is contaminated with a range of heavy metals and radioactive substances. Some preliminary community monitoring is confirming this. That can be then either, as you have heard, released to evaporation ponds, reinjected into the groundwater, or treated and released into waterways. One of the things we are very concerned about, which is not receiving any attention, is when produce water dries out, as it does, in an evaporation pond when the water simply evaporates. You are left with a highly contaminated residue dust. When contaminated with things like thorium, that is a dangerous environmental health hazard. Thorium dust is a causation of lung cancer.

We believe the regulation of produce water is inadequate. We have seen permits where over 80 chemicals were allowed to be released at a maximum volume of 20 megalitres a day. That is a significant

amount. When you look at those chemicals, again there are some very serious toxic hazardous chemicals. In one case we are talking about a company being allowed to release 5,500 tonnes of nitrate over an 18-month period. For any farmer, that is a big worry. I will not dwell too much on that except that Queensland has just released a consultation document. I draw your attention to the fact that it will be a document that will allow industry to set its own acceptable levels for contaminants in water, which I have got to say we think is totally unacceptable.

We would also just like to make a quick comment on reverse osmosis. I think there is an unrealistic optimism about reverse osmosis. If you look at the literature, reverse osmosis does not deal with all the contaminants. In our presentation, I have given you a list of coal seam gas chemicals that it cannot deal with—things like ethylene glycol, the nonylphenols and the diachloroacetic acids. These are very serious chemicals which it cannot remove. I probably also should just say in regard to the salt issue, which worries us considerably, that we did some back-of-envelope calculations from industry's own data. At the most conservative level we are talking about a megalitre of produce water in five tonnes of salt basically every 10 days from each well. I know that can vary, but we took the most conservative of industry figures and came up with that. I thought that was significant.

I would like to quickly conclude on air emissions because it is one of the issues that is not getting much attention. Many of the chemicals involved are volatile and semi-volatile. There has been little air monitoring in Australia, yet the work we are seeing in overseas situations has detected anything up to 22 or 23 hazardous chemicals at levels of three to 3,000 times the health standards. When we look at the fields even here, we note that there is a considerable amount of flaring underway. There is also significant scientific uncertainty. Yes, we know that methane may be released and carbon dioxide may be released, but at least another 250 serious toxins can also be released by flaring, and there is very little work done on that. Despite this, we have had farmers already complaining about noxious emissions from the agri-gas productions and complaining of respiratory problems and burning eyes.

To conclude, we suggest that both State and Federal regulators are failing to adequately assess and monitor all releases from gas activities. We would draw particular attention to the air emissions from things like condensate tanks, compressors, intentional venting, fugitive emissions, evaporative ponds and methane well leaks. Thank you very much for listening. I am happy to answer any questions.

The Hon. RICK COLLESS: Dr Lloyd-Smith, I refer to the table on page 14 of your submission where it talks about chemicals used in fracking fluids. Can you remind the Committee what the acronym CASRN in the second column stands for?

Dr LLOYD-SMITH: That refers to the Chemical Abstract Services number.

The Hon. RICK COLLESS: I notice that you talk there about the toxicity of these chemicals but you do not list any toxicity figures for them. Do you have access to those figures?

Dr LLOYD-SMITH: A number of these chemicals have good medical and health reviews and a number of them do not. That list came from looking at a range of industry documents and compiling the most common, and they were the ones that we came up with. As you can see, underneath we have provided medical, health and environmental data for a range of them but not all, because unfortunately it just does not exist for all of them.

The Hon. RICK COLLESS: My next question relates to your comments about the BTEX chemicals being in the coal seam itself and being released in the water when it comes out. I think that was the nature of your comment. Is it not true that those same chemicals would be present in any coalmining operation and would be released accordingly in any coalmining operation, be it underground, open cut or coal seam gas?

Dr LLOYD-SMITH: BTEX is often released in coalmining, there is no doubt about that. The concern here is that BTEX is released into the groundwater aquifers and those aquifers find their way into bores. Hence while we saw the Arrow Energy contamination—I think it was five out of 14 bores—it is a concern when they make their way into groundwater aquifers.

The Hon. RICK COLLESS: What would happen to those chemicals in, say, an open cut mining operation where the coal is crushed and then washed? Surely those chemicals would be released in that water as well. What happens to those chemicals?

Dr LLOYD-SMITH: Mostly you will see them gassing off. If you look at the reports of coal industry to the National Pollutant Inventory you will see quite large amounts of BTEX released as emissions. You are quite right; you will also find them in the wastewater when they do the coal washing, but of course it is wastewater and they must be dealt with as a hazardous waste.

The Hon. SCOT MacDONALD: I have a couple of questions on the key findings. In No. 11 you ask for more public consultation. What can the planning process do to satisfy that? Should there be public hearings? Not everyone wants to put in a public submission or read a 12,000-page environmental impact statement.

Dr LLOYD-SMITH: One of the things I think would be very useful is if industry was required to release all documents when they put in their applications. A number of the documents we reviewed were confidential. I have to say that they were released to me probably not by the most appropriate means, but it was an eye opener when you saw the risk assessments that industry had done for them. Those documents are not public and because of that people cannot make an informed decision. The figure of 18,500 kilograms was from a confidential risk assessment, so I think certainly more public awareness and more public disclosure—

The Hon. SCOT MacDONALD: Transparency.

Dr LLOYD-SMITH: Yes, much better transparency.

The Hon. SCOT MacDONALD: A matter that keeps coming up in your report, and I think a couple of councillors referred to it, is the question of coal seam gas as a transition fuel and how much more CO₂ friendly it is compared to coal. I draw your attention to the fact that Elaine Prior, I think it was, of Citigroup put out a very good report on exactly this—the measurements. There are a lot of variables in the whole life cycle, from the mine to the ship to Japan, or wherever. There does seem to be a case for it to be scrubbed as a transitional fuel if we think renewables are still a decade or two away from offering base-load and things like that.

CHAIR: I assume Mr MacDonald is asking for your opinion.

The Hon. SCOT MacDONALD: Your opinion, thank you.

Dr LLOYD-SMITH: I can only give my opinion on those because that is to some degree out of my area of expertise. We have written extensively on it and certainly the most recent study that has just come out, the Zhang study, which a lot of people are quoting, has a margin of decrease in greenhouse gases of only 7 per cent from gas to coal seam gas to coal. The problem with that is that when we looked at all the assumptions we found there were no emissions or leaks from wells. There were no emissions in the treatment of produced water. What you ask is quite a complicated issue and many of the different assessments of the carbon footprint of coal seam gas are associated with a range of assumptions that we do not think fit the Australian context.

The Hon. Dr PETER PHELPS: On the basis of the information you have to hand do you believe there is any way that coal seam gas can be made non-toxic?

Dr LLOYD-SMITH: I do not believe that with the use of fracking and the type of drilling that is going on we can really be assured that it would be made non-toxic.

The Hon. Dr PETER PHELPS: In relation to the use of BTEX chemicals, there has been some talk about chemical contamination by coal seam gas drilling of surface aquifers. Have you looked at the substances and processes used in the drilling of the hundreds, if not thousands, of water and deep irrigation bores that exist in this area and which use exactly the same chemicals and the same techniques?

Dr LLOYD-SMITH: They may use the same techniques but I do not think you would find they would use all the same chemicals and certainly—

The Hon. Dr PETER PHELPS: BTEX is certainly found in drilling fluids—

Dr LLOYD-SMITH: Of course.

The Hon. Dr PETER PHELPS: —even of low level irrigation bores.

Dr LLOYD-SMITH: Yes, I have no question that BTEX is found in drilling fluids and it is one of the things that we are worried about because the ban on BTEX is only affecting fracking chemicals, not drilling chemicals. I take your point: yes, we have drilled many bores but I think this is quite a different sort of industry and certainly we have not seen BTEX turning up in those bores and aquifers prior to the industry.

The Hon. JEREMY BUCKINGHAM: Your submission says that the National Industrial Chemicals Notification and Assessment Scheme, NICNAS, has assessed only two of the chemicals that are used in coal seam gas operations. Has either of those two been assessed in terms of their use in coal seam gas operations and what are the implications of that? Are these serious chemicals? Are they chemicals that can accumulate and be toxic and pose an environmental and health risk?

Dr LLOYD-SMITH: Of the two they assessed of the 23 we identified neither was assessed for its use in coal seam gas. One of the two was a chemical called 2-butoxyethanol, which is a reproductive toxin and a chemical that is associated with spontaneous abortions. It is a particularly nasty chemical and in their assessment for a totally different use there is a warning about its ability to contaminate groundwater, soil and surface water. They are serious chemicals and we find it most worrying that chemicals are not only being used in a factory but being released to the environment with absolutely no assessment.

The Hon. GREG DONNELLY: I refer specifically to recommendation No. 11 in your submission in which you refer to full public consultation. Can you explain to the Committee what you envisage full public consultation would involve and who would conduct that?

Dr LLOYD-SMITH: The whole issue of consultation on coal seam gas, as your colleague pointed out, is of concern to us mainly because the consultation we are getting is based on limited data for the community. I go back to my statement: we need full transparency. We need the information about the hydrological impacts. We need basic scientific data about how the water resources in an area are working. Once you have that information and industry provides whatever information it has, we then need a government-run consultation process. I do not think this should be only industry by industry; we need a cumulative approach to this because you cannot just choose one company and say, "Alright, we are going to work on this particular coal seam and on this particular aquifer", when we know there are 20 other projects going ahead.

Not only does it need an individual assessment and consultation, it needs a full regional approach to this issue as well. I think it really comes home when you start looking at some of the issues of drawdown of groundwater and you see some figures that are very worrying, such as industry talking about a 65-metre drawdown in some areas. Of course we need a cumulative approach. We can provide a whole range of discussions on public consultation and community engagement. Last year, or the year before, we wrote guidelines which the National Industrial Chemical Notification and Assessment Scheme now uses, so there are good models. To put it basically, it is not rocket science, it can be done.

The Hon. PETER PRIMROSE: Almost a follow-up to that question is the issue of good models. I refer to key finding No. 12 where you talk about a cost-benefit analysis. What good models can you point us to, if there are any in the world, that we may have a look at?

Dr LLOYD-SMITH: That is a hard one. There are so many models of cost-benefit analysis that we could use. We have put that in there because when you look at the waste issue—say, the treatment of produced water and a river's osmosis—massive amounts of salt and massive amounts of contaminants are produced. Where is that going to end up? It is going to end up in local government landfill. We are very concerned that that sort of issue is not being addressed when we look both at individual projects and cumulative project problems. I cannot really tell you. I am not an economist but there are certain models and I think a more collaborative approach with State, Federal and local governments, non-government organisations and local communities could develop, use, utilise or adapt some very good models and give us a lot more information on which to make sound decisions.

The Hon. SCOT MacDONALD: We have had a lot of discussion about pre-development and consultation. Do you have any thoughts, if the developments went ahead, what sort of monitoring could give us some safeguards?

Dr LLOYD-SMITH: The important thing if you are going to do any monitoring is you need some baseline data to start with. I continually see permits given without any baseline data so if any monitoring is done afterwards we have nothing to compare it with. Step one is baseline data and, again, that baseline data needs to

be transparent and available. We do need proper monitoring of both surface water and groundwater bores, but the most important thing is that if you monitor and find an issue you have to respond. There is no point in putting conditions on licences—you may have 300 or 400 conditions on a licence, but what is the point if those conditions are broken and no action is taken?

CHAIR: Dr Lloyd-Smith, would you like to make any concluding remarks?

Dr LLOYD-SMITH: I will just check with my coordinator. I should have stressed at the beginning that we do believe a moratorium is required until those assessments are carried out. I think that is very important. We need time to draw breath, to think about what we are going to do, how we are going to manage this industry if it is to go ahead and to look at those areas where the industry just should not go ahead. Thank you.

(The witnesses withdrew)

WAYNE ROBERT SOMERVILLE, affirmed and examined:

CHAIR: Dr Somerville, are you representing an organisation or appearing as an individual?

Dr SOMERVILLE: I am speaking as an individual.

CHAIR: Dr Somerville, before the Committee commences its questioning would you like to make a brief opening statement of about five minutes? If you do not conclude or you need to summarise you may table the statement and it will be taken onto the record.

Dr SOMERVILLE: Thank you for the opportunity of addressing the Committee. My wife, Susan, and I live on a rural property in the Kyogle area and I have worked for 35 years in the Northern Rivers as a clinical psychologist specialising in the treatment of trauma. I believe that unrestrained coal seam gas mining is a threat to country people more profoundly dangerous than any drought, flood, bushfire or recession. I am deeply concerned that if this industry is allowed to permanently change the land and country life, the result will be widespread emotional distress, social disruption and political turmoil. For farming families their land is their life's work. It is a testament to their past efforts and their plans for the future. The value that farming families add to their properties during their lifetimes is often their only superannuation and legacy for their children. Nowadays the value of Northern Rivers properties is not based on cattle, forestry or diary; it reflects the preciousness and desirability of peaceful, productive, scenic landscapes with good soil and clean, reliable water.

It is hard to imagine how you could make the current management of the coal seam gas industry more damaging to the wellbeing of country people. Current New South Wales coal seam gas policy denies landowners the right to control access to their properties. It does away with the need to resume land and pay fair compensation to get to minerals. It favours big corporations over individuals and it turns a blind eye to the loss in land value that in effect represents a compulsory massive transfer of superannuation wealth from farming families to mining companies. This is an extreme radical experiment in social and environmental engineering. Every rural landowner faces the prospect of coal seam gas companies forcibly entering their properties, building roads, setting up camps, drilling multiple bores that punch a kilometre down through aquifers, digging dams to hold contaminated water and building noisy, brightly lit sites that run 24 hours a day for the next 20 to 30 years.

The recent media campaign conducted by the coal seam gas miners suggests that this is about jobs and money for rural areas—but what kinds of jobs, and at what price? Life is not just about making money. It is also about creating happiness and wellbeing. Just because some people will make a fortune in extracting gas from the earth, it does not follow that this is a good idea. Is the money the miners and government make going to be worth the price the community will pay? The situation rests on a knife's edge. There is great anxiety and fear in the community. I am sure you have seen plenty of that. If governments perpetuate the deliberate destruction of property, lifestyle and prospects for country Australians many will become depressed, some will suicide, but some will respond with anger, revenge and violence.

In the 1960s I witnessed the social upheaval and protests triggered by bad laws that conscripted young men to wage war in Vietnam. Over the years since then I have worked with hundreds of war veterans and their families to ease the dreadful consequences of those policies. Now another storm of upheaval and protest is brewing and Australia might be in for an even more terrible time. Sadly, it will be the families of the farmers and the mining industry workers who will bear the full brunt of this policy.

But if governments act to establish a fair balance and protect the environment and the rights of individuals then all will be well. In 1976 the then Prime Minister Malcolm Fraser acted on the recommendations of a Parliamentary Committee and stopped sand mining on Fraser Island. Nowadays no-one grieves for the lost royalties and jobs, and Fraser Island is an iconic national treasure. In 1979 the Terania Creek protests saved some Northern Rivers rainforest and ignited a conservation movement that swept across the nation and the world. Twenty years later former Premier Neville Wran wrote:

When I retired from politics I was asked what I regarded as the Government's greatest achievement. I had no hesitation in responding that it was saving the rainforest on the north coast of New South Wales. Whilst I am proud of what we did, my only regret is that we did not do more.

Let us hope that 20 years from now history records that Premier Barry O'Farrell has no regrets because he acted on the recommendations of this Committee to protect and conserve the Northern Rivers and all of country New South Wales for the benefit of future generations. Thank you.

Document tabled.

CHAIR: Thank you. Some members of the Committee may have some questions for you. Mr Primrose, would you like to lead off?

The Hon. PETER PRIMROSE: Not at this stage. I am actually still pondering the points.

CHAIR: They were very good points.

The Hon. GREG DONNELLY: At page 2 of your submission, the top paragraph, I will read it out:

The "elephant in the room" that has yet to be properly addressed in the CSG debate is the growing threat of widespread violence, destruction of mining infrastructure and property, and serious social and political disruption.

I am just wondering on what basis you make those claims.

Dr SOMERVILLE: I suppose things that I have heard in counselling and things that I have heard in the community, comments and just an understanding of human psychology. I call it the elephant in the room because to me it seems like the obvious issue that no-one wants to address because I suppose it might provoke that violence. Therefore, no-one talks about it. But in not talking about it I think we are setting up the conditions to actually facilitate it.

The Hon. GREG DONNELLY: Is there a parallel example you can look at in history that we could use to sort of validate these thoughts? You used the Vietnam veterans as an example. Are there others?

Dr SOMERVILLE: I suppose we could go back to the early Jack Munday protests in Sydney to save areas of trade union involvement and saving areas of Sydney. Whether it will be violent, the Vietnam War protests were largely young people pretty well inspired with a philosophy of non-violence and passive resistance. My concern with what is happening here is that this is something the likes of which we have never seen in Australia before. This could impact all people in country areas and it will involve not just greenies and conservationists, it is going to involve farming people. These farming people of all ages have access to equipment and expertise the likes of which we have never seen in protests. The pipeline that will go from Kyogle over the border will essentially open the Northern Rivers up for the coal seam gas industry. My concern is I do not want to see what it is going to do to this community when we have scenes of elderly women being dragged away from bulldozers.

CHAIR: Ladies and gentlemen, this is fairly serious stuff so I will just ask you to perhaps keep it down. I would like to hear what Dr Somerville has to say and so would all of the Committee.

The Hon. JEREMY BUCKINGHAM: Thank you, Dr Somerville. It was a very powerful submission. My question is in two parts. Do you believe we are already seeing that split in social cohesion with the initiation of the industry, and I would like you to flesh out that issue of whether all of our community has the skill set to deal with this new industry? I would like you to flesh out especially that bit about farming communities, being isolated rural communities, dealing with the coal seam gas issue and whether they have got the skill set to properly deal with it.

Dr SOMERVILLE: I would have to say as a landowner that a few years back first hearing about coal seam gas it did not seem to be such a maligned sort of process. This original idea that you could have a small development sitting on a paddock, it is not going to affect anything around, any of the pasture around, it is not going to affect the groundwater, it has all come upon as very quickly. I think what has happened up at Tara and Kingaroy and all these areas up in Queensland has taken them by surprise. Are we already seeing the split here? I see lots of depression and anxiety. The number of people who will burst into tears when you discuss this issue, the amount of distress out there is huge but I do not yet see the split.

As I said, I think this is resting on a knife's edge. The damage is yet to be done, but it is getting there. The first sign I think was that news report we saw the other day where the police were called into Lismore because they thought a crowd could get out of control at a meeting of coal seam gas executives. That is just the first sign, but it is very early days. The real crunch will come when people's farms are being affected. Does that answer your question?

The Hon. JEREMY BUCKINGHAM: Yes, it does.

Dr SOMERVILLE: You also asked about the isolated rural communities.

The Hon. JEREMY BUCKINGHAM: Yes. How can we mitigate against that? Do they have the skill set and how do we mitigate against that?

Dr SOMERVILLE: Do they have skill set? It is a complex question. The issues that have been raised here will tax scientific minds. They are very complex questions. Do country people have skill sets? They are probably skill sets that are perhaps a bit different to people in the city, but they understand issues as well. They will have different skill sets. I certainly would not expect them to be up with the science that is involved with this: it is very complex. But certainly the impact on people, I do not know that city people understand exactly what the land means to country people. It is not all right to put a mine 100 metres or 200 metres away from a house. It would be equivalent to saying to city people, "Well, three-quarters of your superannuation has been confiscated and we are going to put a mine at your holiday house."

CHAIR: As part of General Purpose Standing Committee No. 5, I was not chairing that public hearing, we did an inquiry into wind farms, wind turbines, and almost parallel exactly to what you are saying were the concerns expressed by rural landholders—not the people upon whose farms the wind turbines were being placed because they were walking away with half a million dollars in their pocket every year, but the neighbours. One of the things that came out of that inquiry was that in the planning process and in the consultation process the proponents have all the power. That is, they have the lawyers, the fast talkers and the smooth people. They may even have psychologists on their staff. It was suggested that perhaps if local government was going to be involved or rural organisations were going to be involved that the expertise that I think Mr Buckingham is trying to get to should be provided to the community to give the community their own experts, for want a better of idea. Do you think there is any benefit perhaps in looking at the planning system and the consultation process to introduce some sort of a government-funded opportunity for the communities themselves to obtain their own experts at no cost to themselves, whether those experts be mining or electrical or land use or law or whatever?

Dr SOMERVILLE: Absolutely. That would seem very sensible, but then I suppose it will depend on what the limits are to the negotiation that is possible. The way it has always been is that if the council wants my land, or the Government wants to do something with my land, they can resume it. They cannot be stopped and a fair compensation will be paid. But this is nothing like that. This is just coming onto your land, basically wrecking it and taking the value away, so there is no fair compensation. Certainly if it was a system like Western Australia where you could negotiate, then I think you certainly would need that sort of support and that sort of advice so that you could negotiate fairly.

CHAIR: Okay.

Dr SOMERVILLE: And that is the sort of cost. This coal seam gas looks wonderfully profitable but, as I said, inherent in there is the superannuation wealth of the rural community being put into it. If the full cost of it is costed in—what it takes away from the community elsewhere—it is not nearly as profitable as it looks.

The Hon. Dr PETER PHELPS: Dr Somerville, you mentioned anxiety in the community. Would you agree that anxieties can be rationally held and also irrationally held, and that in some cases the irrationally held anxieties are in many cases more intense than the rationally held ones?

Dr SOMERVILLE: Certainly anxiety is a normal, natural emotion if it signals the presence of danger. It is a rational anxiety, I suppose, if there is a real danger present. I suppose it is irrational if the person comes to know that it is not a real concern. In certain obsessive-compulsive anxieties, the sufferer will recognise that it is irrational. In the case of coal seam gas, I think the anxiety is fairly rational. The anxiety will signal the danger. It will then lead to a response, which will be largely fuelled by adrenaline and anger. If that adrenaline and anger, which produces all this effort to try to deal with the danger of all of these submissions, leads to a positive outcome, then that emotional process will be resolved. If it does not, that anger will either turn backward or inward on the individual and cause depression, or it is going to be acted out outwardly.

The Hon. Dr PETER PHELPS: But does not the nature of the rationality or the irrationality of it depend on factors which are outside the person's mind—in other words, a scientific study of coal seam gas, its impact and its potentialities?

Dr SOMERVILLE: Certainly. If it could be proved that there was no threat to a person's future wellbeing, to their legacy, to the environment, to their health, and that there was going to be no noise at night that is going to disturb their sleep cycles and the person remained anxious, I would probably say then it is irrational.

The Hon. SCOT MacDONALD: My question is very similar to the question by the Chair. It just struck me when you were speaking, especially at the start, that a lot of this seems to transpire from an inequitable balance of power. Someone has a lot of power and the other party does not have a lot of power. Is there anything else you could add to the Chair's question that could restore that, or give comfort to people? Would rebalancing power address a lot of people's concerns?

Dr SOMERVILLE: It is. As I say, it has come on the community very quickly. It is almost a David versus Goliath issue. People do feel very disempowered by this. Anything that could be done to increase that power is obviously going to help. That powerlessness is what is leading to the depression.

The Hon. RICK COLLESS: Again, following on from the Chair's question about wind farms, I was on that Committee also. The symptoms that you referred to in your submission—things like social disruption, depression, anger, violence, political chaos and so on—are echoed quite succinctly in our wind farm inquiry. We heard exactly the same sort of comments from many people when they are having wind turbines placed, as the Chair said, not necessarily on their own properties but on the properties next door. One of the things that came out of that was this issue of low frequency sound or infrasound that the turbines produce. We have not taken evidence to that effect about this particular issue yet, but I suspect it is a similar thing. It is not necessarily very high frequency sound, but low frequency low-volume sound in the distance that operates around the clock and, as you mentioned a minute ago, disrupts sleep patterns and sleep cycles and those sorts of things. Is there a way around that? Are you familiar with the concept of infrasound as a psychological influence on people?

Dr SOMERVILLE: Yes, I am. In terms of sleep cycle, it is well documented that the level of sound a person is exposed to during sleep will affect the proportion of dream sleep and stage two, three, four of deep sleep. It does seem that it disrupts the deep sleep. The deep sleep is what is necessary for physical repair and for physical healing. There is evidence showing in Sydney with the noise where you are that the noisier the place, the greater is the disturbance. That is very clearly correlated with a whole raft of psychiatric symptoms and medical symptoms largely associated with reduced immune responses. I do not know how noisy these things are at night, but I suppose if there are a number of them around and if it is running all night, it would be an issue, especially in country areas where the sound carries.

The Hon. RICK COLLESS: We have heard from a lot of people about bullyboy tactics, to use the term loosely, of some of the big coal seam gas companies and how they come in and say, "Well, we're going to put a well on your place, otherwise we will take you to court." That sort of blunt approach is what they apparently have used, and I have to say that the wind farm people also used the same tactics, so it is not uncommon for these industrial-type operations that occur in regional and rural areas. Do you believe that if the companies used a substantially different tactic when first approaching the people and were more consultative in their approach or, say, were a little more gentle in their approach rather than using that blunt instrument all the time, do you think that people would tend to feel more comfortable with the whole process about the way things are handled in that regard?

Dr SOMERVILLE: I am sure they would, depending on how that process ends and so long as that attitude went all the way through the negotiation and through the process, and that the bullyboy approach did not reappear at the end when it came down to it. The problem with that bullyboy approach is that, with the psychological effects of a trauma, it is one thing to have suffered a loss because of an accident or a personal tragedy, but the sort of assault that occurs that is perpetrated by another person is particularly difficult to resolve. It is the sort of thing that leads to a long-term anger and a resentment. So bullyboy tactics would definitely not be good management practice. Certainly, any other approach would be better.

The Hon. SCOT MacDONALD: You are in the health system here, are you?

Dr SOMERVILLE: I am a clinical psychologist in private practice.

The Hon. SCOT MacDONALD: In your opinion, is there enough counselling? I come from the other side of the State, the west, and there was quite a lot of drought counselling when the drought was at its height. Are there enough of those sorts of services available, not necessarily for this issue?

Dr SOMERVILLE: Generally there are not enough health services available in these rural areas. It is definitely underfunded and underserved, but I would not like to suggest that counselling is the solution to the coal seam gas industry issue.

CHAIR: This is not really a subject that should be taken lightly, if we are talking about serious mental illness as a result of these impositions being put on communities. It is fairly serious.

Dr SOMERVILLE: They are.

CHAIR: I ask the audience to keep down the noise as I cannot hear Dr Somerville.

Dr SOMERVILLE: When it comes down to these issues, they are important issues. They are important issues that go to a person's livelihood, that go to their future and that go to their legacy to their children—those sorts of issues. Counselling will only resolve those if there can be a resolution to the threats. There is no psychological counselling that can make a fundamentally unfair and disastrous situation all right. Counselling would have to be along the lines of, "Well, you just need to survive this." But that is all it would be. It would not resolve the underlying reaction.

The Hon. JEREMY BUCKINGHAM: You have discussed the impacts on an individual's psychology. What about a collective wellbeing in terms of a new industry coming in, and obviously significant people are opposing while some people are benefiting. If this industry were to roll out, how will that be managed? What are the impacts to a community from the psychological point of view of having winners and losers? I am not exactly sure who the winners and losers are, but could you elaborate on that?

Dr SOMERVILLE: That is a very complex question. I mean—the community effects? I would just like to note that the Northern Rivers is a long way away from Macquarie Street. It is probably as far away as you can get from Macquarie Street, but it is very close to south-east Queensland. South-east Queensland is going through an absolute boom time. I think two years ago the statistics were that 1,600 new residents a week were moving into south-east Queensland. The Northern Rivers has been discovered very recently by Queensland. You come over the range and you enter a different type of country. You come to this beautiful rural country and you see it. In terms of the community, if we were to lose the nature of the Northern Rivers, it is going to have a collective impact on the wellbeing, I think, of the entire south-east Queensland region. It will be an asset that is lost. It is a place of tranquillity, a place of good water.

I would also like to say something about how beautiful it looks at the moment. You are seeing this country at its best. It is only a few years ago that the drought was so severe up here. On the property where Susan and I live, it was so dry there was not a blade of living grass anywhere on the property. We are on the second-biggest creek in Kyogle—second only to Brady's Creek, that feeds Toonumbar Dam. The creeks stopped running. Toonumbar Dam was absolutely dry. It was a paddock right out to the middle. We had to rely on a bore that goes down 40 metres, not a kilometre. We had to rely on it. The vision that I have of another drought up here when we have got how many thousands of gas wells through this countryside is not a vision I ever want to see. What impact would that have on the community? I think it would be profound and un-describable.

You ask specific questions about the complex questions of how a community responds to transient workers coming in, including the factor of a lot of young men. I think there have been various submissions made detailing these effects. They are very complex. What you have to say at this stage is that no-one knows how it would pan out, but it is reasonable to conclude that it will not be a good effect.

The Hon. RICK COLLESS: Dr Somerville, you made some comments about the pipeline. A number of other submissions or people have referred to that too. Can you briefly tell us what the issues are surrounding the pipeline?

Dr SOMERVILLE: As I understand it—I mean, we have had the coal seam gas in Casino now for a few years and I think they have got approval there for a gas-powered power station. As I understand it, this pipeline goes to Ipswich and then it goes off to the coast and it is going to take coal seam gas from this area and sell it to the export market, to the Chinese. The issues for Kyogle, and I guess for the Northern Rivers, are that I would think that once that pipeline is in, that opens up all this area to the coal seam gas industry of, I would

think, a fairly unlimited size. So I think the issue at the pipeline is that this is the thing that will open up the Northern Rivers.

The Hon. RICK COLLESS: Right. So it is not the actual construction of the pipeline itself?

Dr SOMERVILLE: I am sure it is. I drive along the Lions Road. It is not for me to comment on whether you can put in a pipeline and not do damage to the rainforest, but I think from my point of view the bigger issue is that it is the infrastructure, like a highway where the suburbs follow the development of the highway. This is the infrastructure that will allow us to end up with a Tara-type in the Northern Rivers.

The Hon. RICK COLLESS: Of course, there is another famous pipeline in Australia—the one that goes from Moomba to Sydney. That gas pipeline was put in during the early or mid-seventies, from memory. That pipeline has provided a lot of opportunities for communities to develop because of the gas that it supplies. Is there not an opportunity here also for gas to be produced to encourage development and other industries to come in because of the cheap energy that is available?

Dr SOMERVILLE: Did that pipeline involve coal seam gas where you had thousands of wells?

The Hon. RICK COLLESS: No, it was natural gas.

Dr SOMERVILLE: Natural gas coming from a particular well?

The Hon. RICK COLLESS: A well or a number of wells.

Dr SOMERVILLE: It is sort of a different situation. If you were to say that there is going to be a pipeline coming from a gas well somewhere in Casino which is going to run through Kyogle, that would be great. Kyogle could tap into it and get cheap gas. But what is really going to happen here is that Kyogle will be paying the price of getting the gas into that pipeline. As for the opportunities for it, I do not think that we need that sort of energy for the types of industries that Kyogle is really suited for. I mean, it is a rural community. Heavy industry is not going to really take off there.

CHAIR: Dr Somerville, thank you very much for coming and giving us your thoughts. All of the Committee members thought it was worthwhile hearing what you had to say. It is an area on which we have not really had any input so far, so thank you very much for attending.

(The witness withdrew)

(Short adjournment)

IAN RONALD GAILLARD, member of Keerrong Gas Squad, Keerrong, New South Wales,

DOUGLAS FERGUSON, member of the Keerrong Gas Squad, and

HARRY FRANK BOYD, member of the Keerrong Gas Squad, affirmed and examined.

CHAIR: I welcome the witnesses from the Keerrong Gas Squad. Would you like to make an opening statement?

Mr GAILLARD: Mr Ferguson and Mr Boyd will share the opening statement with me. Welcome to the Northern Rivers. Water here plays an essential part of our lives as it does statewide and nationwide, where catchments, creeks, aquifers, wetlands and river estuaries are connected in a myriad of ways. It is this connectivity of water itself that is under the greatest threat from the current gas rush in which we are seeing an invasion of coal seam gas companies hell-bent on export and whose bottom line is insistent on growth with no limit in this and every region in New South Wales underpinned by coal seams.

In our submission we will cover the points set out in the terms of reference. First, the effect on ground and surface water. I refer briefly to a statement by the National Water Commission in its biennial assessment. It is the peak body that advises the country of Australia. It said, "The commission considers that unless and until it can be demonstrated otherwise surface water and groundwater resources should be assumed to be connected and water planning and management should be conjunctive." This is the reverse of the current situation.

I refer to the effects of hydraulic fracturing on Crown lands including stock, reserves and State forests. How would it be if a travelling herd of stock drank salt from coal seam gas wells or the water that they drank was contaminated? State forests and travelling stock herds and farms are simply part of the same interconnected water system that underpins the Northern Rivers and the driest continent on earth, Australia. I refer to the nature and effectiveness of remediation required under the Act. Once again, the National Water Commission has said that if aquifers and groundwater were contaminated it would take upwards of 10,000 years to even begin to repair the damage to our underground water. This is unacceptable.

Food security and agricultural activity: Do we export gas to China? Do we bring cabbages from China when we can be growing them here? Will that be compromised? Will all the agricultural industries of the Northern Rivers from chicken farms to stud beef cattle be compromised? It is a very serious question. I refer to the impacts similar industries have had in other jurisdictions. The evidence is stacking up worldwide daily in the media and in scientific reports. My inbox is so full I cannot even read about all the things that are going wrong in the coal seam gas industry.

On ABC *Landline* on 29 August 2011, Professor Steven Raine of the University of South Queensland stated, "The effects of CSG mining on groundwater will not be known for some 30 to 40 years after peak extraction." So if we have an industry that lasts 30 years in the extraction game we will find out the seriousness of the consequences much later. At this point there is no provision for long-term monitoring of coal seam gas companies once a well is deemed unproductive. When this occurs some 30 to 40 years-plus after extraction will it be too late to repair aquifer systems?

In Australia, the State—that is you people—not the Federal Government holds control of mining leases and approvals. You as representatives of the State have a fiduciary duty, a duty of care, to safeguard our environmental life support systems and, I might add, our environmental capital. Much is made of economic boom in the mining industry; what about environmental capital—the health of our creeks, rivers, aquifers and estuaries et cetera. What about public health for present and future generations? You have the power to retrospectively curtail dangerous mining practices. Coal seam gas extraction is a major threat on many levels. In this age where an arm, a leg and even a rabbit's balls have to be insured we need you to be our insurance. Government is our insurance. Who do we have if we do not have you?

Mr FERGUSON: Many of the things I would like to say have been said, so I want to come at it from another angle. What I find most alarming is the context that is not addressed thoroughly here or anywhere as far as I can see—that all of this is happening to us. None of this was sought by this community here but it is happening to us. That is the first thing. We are not in a mining boom in Australia we are in a mining frenzy, and we are staking our future on providing literally billions of people with the bare necessities that are being dug from under our continent. Every time you play with a piece of geology you affect the underground water. The

United Nations informs us that 94 per cent of the planet's available potable water is underground and you would probably find in Australia the percentage is a little higher because nowhere on earth is there a spring-fed nation like us.

We do not even have a definition of water. We know it is H₂O and we have been talking about it all day as though it is a commodity, but water is a living essence. If we cannot understand it and cannot explain it the best we can reach for is to understand it by its function. In fact, that is the best way we can understand anything, by the relationship to its function. The function of water is very surprising. It supplies life to the whole biological display that we ourselves are a self-announced evolved part of. That is the function of water—to provide life to all biology. We are in crisis globally with water and in Australia, if anybody has been reading or listening to the news, we have had a 15-year conversation about water. The greatest threat to the continuity of our life as we know it is the announced shortage of water.

In Australia water is measured but when it comes to New South Wales the account of water in the bank and the understanding held by various levels of government become forensic. There is no such thing as free water in New South Wales. If we are talking in terms of megalitres of water—let us call the communal effect zigitalitres of water—being consumed or left to lie around in holding ponds or being interrupted in any way, someone has to be leaning on someone for that to be allowed to happen at some level of government or some level of bureaucracy. Most of you probably realise that. We have a forensic accounting of water. The man who filled the truck to drill the first hole had to take that water from somewhere. I have asked Arrow and I have asked Metgasco and they will not tell me where those 300,000 litres came from. That water is accounted for. Do you understand what I mean when I say someone is leaning on someone?

The context that I am suffering under is I am beginning to understand that all three levels of government and their bureaucracies have been staged to accommodate the mining frenzy. The statistics are all available. I do not need to talk about that today. I need to put this in context. We in the Northern Rivers—this is the local context; you probably would not have seen the true glory of this place on the route that you travelled, but if you go up through the Tweed you will see a one-off geophysical relationship with the light on planet Earth. We are the first sun country. All heavenly bodies rising in the east hit that mountain.

We have reasons to ask world heritage be declared on the whole lot. We are full of world heritage and those world heritages are a result of public activity and public demonstration. We won the forests and in those forests is the sweet water that all of us drink. Nearly everybody here is dependent on the Wilsons River. Those world heritages are known worldwide. Why has the environmental Act and the Federal environmental Act not been triggered? I would imagine the State and Federal Governments can politic that for us. We have abundance in terms of biologists who can substantiate what I am saying. Why has world heritage not triggered the Environment Act? That is not a question I expect you to answer; it is a rhetorical question.

The other thing I put to you is that Rous Water is currently involved in restoring the Richmond River. Just a brief context: The estuary system, the wetlands system here, created particularly the Richmond River, but we can chuck in the Clarence in my history of the east coast of Australia as well. We had the greatest fish hatchery on the east coast. In economic terms that would provide more employment not just on a regional basis; a fully charged fish hatchery would supply fish the entire length of the east coast. The economic benefit is uncountable, the environmental capital that we would have in our local area is unimaginable and we need that project. We want the State Government to be part of solution number two and the Federal Environment Act and to sustain our projects in rehabilitation. The Wilsons River is one small area locally, but across Australia we have projects of rehabilitation for the Great Artesian Basin, for the coral reefs and we have it here locally. The coal seam gas promises not really to make it. It is not cosmetic, it becomes a farce that water in that quantity is being poisoned and redelivered into our environment.

So the context that this is happening in, a mining frenzy to supply billions of people overseas with our sweet water, has seen in fact after the sign-off of the Native Title deals that were all done six years ago in this area, the water in the Tweed River and underground in the Tweed, if the coal gas goes ahead it effectively belongs to the Chinese Government. And they do not live here, you do not live here, we live here and we have developed over generations a very sound lifestyle. We have universities, we have agriculture and we have two million tourists a year. If we are covered with pipelines, where do we stand?

The other issue I want to hammer home is the connectivity of water. The fellow from Richmond Valley Council is prepared to give water away. But do you know what, Rous Water administers to four council areas and every drop of water that flows through Richmond Valley will end up in another council region. In this

instance it seems to me that that one council is a recalcitrant council. That is to say they are going against the larger interests. How does this tie in with connectivity? I ask you if we do not have constitutional reform on water, how can we defend it across State boundaries? Because what is happening in Tara, the water that that has been admitted will affect the Great Artesian Basin, the Murray-Darling Basin, it flows backwards and it affects the source of the Clarence River and the Wilsons River. So State solutions are not sufficient for us here locally, but we urge you as a fourth solution to legislate against coal seam gas across the entire State.

There is more I would like to say but we will have some question and answer time. At this time I would like to present Uncle Harry Boyd of the Ngarakwal people. He has drawn an underground water map of Australia. He has given a cultural signature to the unity of waters. He is our uncle and he has a few words of his own to say.

Mr BOYD: How this came about today about this coal seam gas, it was done through native title, Indigenous Land Use Agreement. That is where it came in, those people who signed for it. Bundjalung is not a word, it has been made up by a white man from the 1800s whose name was Fraser. I have done specific research on it. Therefore those people are financing this gas. I want a Federal investigation right into it. Could you please give me that?

CHAIR: I cannot, no. I am just going to move that microphone over so that Hansard can hear what you are saying.

Mr BOYD: Well, you heard what I just said there. I want a Federal investigation into native title. They asked me my identity. I am Ngarabal, I am moved to Tweed Valley. And Arakwal over there is a made-up word too. This is how a lot of things come in, it is all native title. They can just explain native title, Indigenous Land Use Agreement. I know who created it. His name was Ian Cohen. He is a rotten dog. But I do ask you to go through. I swore to you and what comes out of my mouth is no crap. It is there. So I can understand.

By the way, I am not an Aboriginal; I am an original of this land. I am the owner, traditional owner. You say traditional, I am an owner and this is what I own. I speak for my rights and I speak for my people's rights. I know land councils are controlled by the government. I know what they are because I am on the subcommittee of one. I know how everything is run and I never signed my rights away.

CHAIR: Can I just ask you a question then, Uncle Harry?

Mr BOYD: Yes, you can ask.

CHAIR: What you are saying is that you really do not have much faith in the concept of the New South Wales Aboriginal Land Council.

Mr BOYD: No, I don't because they are controlled by the government itself. They are the puppets of the government's wishes. Every Aboriginal person can tell you that themselves. It is coming from my mouth and I speak for thousands. I am not a British subject. I am a subject to my own people. I hold sovereign rights to this land. I do, and you know that yourself.

CHAIR: I am not going to argue with you.

Mr BOYD: I am not an Aboriginal. I am an original. He starts calling me an Aboriginal is like saying I am abstract, abnormal. But what is so abnormal is the white man thinking. That is what it comes down to, to me. So, next time, just say I am original.

CHAIR: In your view do you think coal seam gas mining should just be stopped?

Mr BOYD: It should be stopped automatically.

CHAIR: What about other mining, like uranium?

Mr BOYD: Even uranium.

CHAIR: Coal?

Mr BOYD: Well, you can take coal out but every element in this planet is there for a reason. We are the oldest conservationists on this planet. We are it. If white people took notice of the Aboriginal inhabitants when they first came to this land you would not have this problem. You would not.

CHAIR: So you hold that view. Do you believe that these sorts of activities either have damaged or will damage our water resources?

Mr BOYD: It will. I did the map. I did some actual drawings. I can see the damage that the coal seam gas may do, even uranium. They already put plans in action. They are going to use that as a dumping ground. You have heard of the word guinea pig. We are the guineas, they are the pigs.

The Hon. JEREMY BUCKINGHAM: I do not know who is best placed to answer this but I am particularly interested in the first part of your submission about how you first began to interact with Arrow Energy. It says that the first sign of the activity was a huge number of heavy vehicles on your narrow country road followed by a noise that went from 7 o'clock in the morning until 7 o'clock at night. Are you fair dinkum? That is how you found out about coal seam gas in your community, they just turned up?

Mr GAILLARD: That is correct, yes. When we are talking about who that might be, we are talking about Arrow who are wholly owned by Shell, the fifth-biggest company in the world, and PetroChina who has a market capital of a trillion dollars and is an arm of the Chinese government. These people turned up. The neighbours have expressed to me how dismayed they were that suddenly this happened. They have expressed that that person may be getting compensation, but what compensation will we get when our water is no longer drinkable? And what about this 7.00 a.m. to 7.00 p.m. noise? We are told very little as far as transparency. Arrow, Shell, PetroChina, and you could add Metgasco, you could add Red Sky, you could add Clarence Resources who are all in this area in the Northern Rivers and a new one I noticed today called Summerland Resources. And they use front companies such as Bow Energy to go in and get agreements signed and cultural heritage. That is how it works. The directors move in between one and another.

Mr FERGUSON: We get it. Bow and arrow. Hit the target.

Mr GAILLARD: But people who suddenly have their lives interrupted by the onset of a drill rig coming down a narrow country road, and it is narrow, you have to get off on the verge to drive there. It is soft underneath, we live on a floodplain. The areas targeted by Arrow, Shell, PetroChina and the nine bore holes already in existence, exploratory bores, are all in river creek flats in this area. The people there no doubt feel similarly. The farmers I talk to. When I have ute/tractor meetings with my mate Bob Berney down the road who is 78, he says, "Ah, if they wreck my water, Ian, I'm stuffed." And this goes on.

The other effect we are talking about is that it is incumbent upon us to prove the negative. Where is our government at this point? Where is our government that cannot regulate in advance with these people rather than sell out, as the New South Wales Government has done, for a mere \$2 billion in royalties over 20 years? That is nothing. That is a snap of the fingers in economic terms. But once again we come back to will we be left with a damaged ecological capital and who will then be left to clean it up because, as I said, it takes upwards of 10,000 years for aquifers to redefine themselves.

The Hon. GREG DONNELLY: With respect to your submission on the second last page, if we could take a look at that, and specifically to (a) which concerns the legal rights of property owners and property values. Would you like to make any particular comments about what you said in your submission in regard to that?

Mr FERGUSON: We had a meeting with the Environmental Defenders Office lawyers in Lismore and they analysed the quote clearly for us and finally, after being questioned on every side of it, it turns out that we do not have any rights; we are subject to the Crown. We have no rights to what happens under the ground even though 95 per cent of that potable water is under there, and that effectively the companies could do what they like. They have been trying to play nicer than that. But when the people from Arrow Energy came in and the geologists and hydrologists started to give their version of events, we asked them where they got their information and do you know where it came from? A computer that was measuring what was happening in Tara and the Darling Downs.

In other words, they are only experimenting, and the findings they are finding there they are telling us after the event—after the event has already become a fait accompli. So where are landholders' rights? If

underground water is connected and your neighbour sells out because he is allowed to, and your water comes through his property, what happens to you? Where are property rights in that? Effectively, we are subjects to the Crown. You all must know that that gives us very little right to what happens on the house or under the ground, especially in the face of a trillion-dollar industry where \$200 million worth of future gas has already been sold nationwide. They are heavy hitters and we are like rabbits on the grass in front of them.

The Hon. SCOT MacDONALD: Harry, can I ask you a question? We keep being told that unemployment in this region is high, and Indigenous unemployment is higher again. What is your attitude to a young Aboriginal person taking a job in this industry?

Mr BOYD: Well, to my own knowledge, it would be the wrong-est step in his life. It would be. What would he gain? We cannot drink toxic water, eh? It is obvious in the future, one generation to go; I have got five. Even your grandkids have got aspirations—even yours, yours, yours, yours and yours. These people probably feel it for future generations, like these people who sent you here. That is why we are here.

CHAIR: We are out of time. Thank you all for coming here today. I can assure you your views have been taken into account. As I said to witnesses earlier, Hansard will have most of these transcripts up on the website within a couple of days. If you have anything else you want to add after you have heard other witnesses' statements, feel free to contact the Committee, or if you have already put a submission in, you can put in a supplementary submission if there is something you do not like. Thank you very much for attending.

(The witnesses withdrew)

GEORGINA ROSE RAMSAY, Member, Group Against Gas—Kyogle,

BOUDICCA CERESE, Member, Group Against Gas—Kyogle, and

LESLEY LOUISE McQUEEN, Member, Group Against Gas—Kyogle, affirmed and examined:

CHAIR: Prior to commencement of questions by the Committee, would one of you or all of you like to make a brief opening statement? If you do not finish or we run out of time, any opening statements can be tabled and they will be taken into evidence.

Ms CERESE: Thank you, Chair. I would like to take the opportunity to make an opening statement. Before I do so, I would like to table some documents. I have a map of the petroleum titles and boreholes across the Northern Rivers region and a copy of my presentation for each member of the Committee. I also have heard a lot about the natural values of the region today. I have collated a few brochures about the region for the Committee to see the values that people are talking about, and they are being tabled as well.

Documents tabled.

Ms CERESE: Firstly, we would like to make it clear to the Committee that the members of our group, contrary to what the industry would like to tell us in their new advertising, do not want coal seam gas [CSG]. We do not want coal seam gas because the cancerous spread of this industry across the Northern Rivers threatens the very essence of what makes this region special—its precious natural areas and exceptional biodiversity, its pristine waterways and rich farmlands and its vibrant innovative local communities and charming rural villages. These qualities support the vital agricultural and tourist-based industries that provide for the people of this region. We do not want our very livelihoods placed at risk by the poisoning of our land and water. We do not want our unique plants and wildlife threatened by destruction and fragmentation of our native forests and we do not want the communities of this closely settled region threatened by pollution of our air and water.

We believe that there is so much at stake it is vital that we adopt the precautionary principle in relation to this industry. We need to stop any further expansion and undertake comprehensive inquiries into all of the impacts of coal seam gas extraction. We call on the Committee to recommend to Government that all coal seam gas activity in New South Wales be stopped immediately to allow for full independent investigations into the impacts of this industry on natural areas, land and water resources, human health, greenhouse gas emissions and local communities. At present the legislation and regulations governing the coal seam gas industry in New South Wales is inadequate and ineffectual. Even though evaporation ponds have supposedly been banned, the issue of what to do with the huge volumes of toxic saline wastewater, generated during coal seam gas production, are not being addressed.

Here in the Northern Rivers we have Metgasco disposing of its drilling fluids in an old council quarry and planning to build a 12-hectare evaporation pond on the Richmond River floodplain to store wastewater. There is currently inadequate Government monitoring of coal seam gas operations. The public has had to become the monitors of this industry. In this region we have discovered poorly lined and overflowing drill ponds and leaking wells. Fracking supposedly has been banned, but only for six months. How will it be any less dangerous by then? The local company, Metgasco, has already used fracking at its Kingfisher well and has said that it will use it again in future to access gas in deeper coal seams. We need Government to develop a comprehensive systematic regulatory framework to safeguard our environment and communities, not these current ad hoc measures that do not properly address the issues.

We call on this Committee to recommend to Government that a new legislative and regulatory framework, based on principles of ecologically sustainable development, should be developed to properly manage this industry—if it is allowed to proceed once comprehensive studies have been done. This framework should include the following: exclusion zones around high-conservation-value lands, wetlands, beneficial use aquifers, residential areas and homes, important food-producing areas and public lands; the right of landholders to veto coal seam gas operations on their land and an expanded compensation framework for landholders; coal seam gas activities should comply with the relevant environmental laws including native vegetation, water management and chemical-use legislation; and, finally, there should be adequate independent monitoring of coal seam gas operations and enforcement of regulations.

Before I conclude I would like to convey to the Committee the scale of production that is currently proposed for our region. There are three gas companies currently exploring across the Northern Rivers. The company Metgasco has been granted approval to develop a 40 to 50 wide well gas field near Casino to supply a 30 megawatt power station, and Red Sky Energy has flagged its intention to develop a 27 megawatt power station near Grafton. Metgasco also has an application with State and Federal governments for a pipeline from Casino to Ipswich to supply up to 60 petajoules of gas per year to the south-east Queensland market. However, it has not specified where the gas would be coming from or how big the gas field would be to supply this gas. We think it is highly irregular that the company is seeking approval for a pipeline without also seeking approval for the gas field that would supply it.

Based on the figures for the approved Casino gas project, we estimate that more than 1,000 wells would be needed to supply this pipeline. Metgasco is also investigating a 1.5 million tonnes export facility at one of three locations—Gladstone, Brisbane, or a floating liquefied natural gas [LNG] facility somewhere on the New South Wales North Coast. According to company documents, an export facility of this size would require 90 petajoules of gas, which we estimate would require at least another 1,500 gas wells. So that is a total of more than 2,500 production wells so far. Gas fields of that scale, as you would know, would comprise not just the wells but large, noisy, toxic-gas-venting compressor stations, wastewater storage dams and treatment facilities, and extensive networks of tracks and pipelines joining all the wells. Based on the amount of well water produced in the existing Metgasco project, we estimate that up to 25.4 megalitres of wastewater could be produced every day in such developments. That is 9,000 megalitres of wastewater per year that would need to be disposed of. I note that this is just the detail of the initial proposals from one of three companies that are active in the region, and they are just beginning to actually explore the resource.

Gas companies have not yet detailed where these massive gas fields will be situated, but unless the expansion of this industry is properly planned and controlled, this scale of development could conceivably spread across much of the Northern Rivers as virtually the entire region is covered by exploration licences, as you see from the map that I have handed to you. The number of developments already proposed and the fact that the companies have explored only a small section of their leases highlights the need for a proper regional planning process to be undertaken before this industry expands any further in the region, or indeed to see if it should expand at all. It is also vital that there is assessment of the cumulative impacts of different projects, not just the current stand-alone approvals process. Our local communities, councils and existing industries deserve a role in assessing whether such large coal seam gas developments are appropriate for our region. We ask the Committee to recommend to Government that strategic regional land use planning be commenced in the Northern Rivers as a matter of urgency, given the massive scale of coal seam gas developments that are currently being proposed.

Finally, we ask you to recommend to Government that they reject the Metgasco pipeline proposal. We believe it is an entirely inappropriate development for the internationally recognised conservation areas through which it would pass, and that the approval of a pipeline now would pre-empt and severely compromise a fair decision on a future gas field. Thank you for your time today.

CHAIR: Ms Ramsay, am I correct in assuming you are an organic grower?

Ms RAMSAY: I am a certified organic grower.

CHAIR: Will you outline to the Committee what impacts on your livelihood and your business coal seam gas exploration and production may have on you?

Ms RAMSAY: The certifying bodies tell us that it will be a case-by-case decision, but I have been talking with the Chairman of the National Association for Sustainable Agriculture, Australia [NASAA], which is my certification body. We spoke for quite a few hours on this because they have not got a mission statement or anything—it has come about so quickly. We were saying that the size of the average property in the Northern Rivers is 100 or 200 acres and that some organic farms are even as small as 15 acres. With constant monitoring that they would ask for, the protocols that we adhere to in the standards already and the protocols of recording everything that came onto the property—wash-downs for equipment, requesting from mining exploration companies a list of the chemicals they are going to use—it would just be amazingly long and arduous. I will give a quote in relation to fracking. It says, "Whether fracking activities occur will be dependent on the resource development company and their operating licence. Whether chemicals used are allowed or prohibited under the use of the relevant organic standard report to your certification body if necessary." I rest my case.

We also talk about the fact that when a new chemical is issued we are to be handed the list on a sheet. We know from listening to *Four Corners* and different stations and our reading that half of those sheets are not up to date. That is one of the main arguments that have been thrown around. To be an organic farmer and morally be able to grow whatever the farmer grows, whether it is beef or small crops like I do, with a gas well on my land that is going to flare off aerial-borne chemicals and having constant drilling—just the procedure of having a coal seam gas well does not adhere to having clean, green food. There might be a place for it on huge areas of land but what the small farmer here wants is to have clean water and our good name.

I could bring a buyer in from Sydney who wants me to supply him with a contract, as I used to do, to inspect my farm. We may be talking about a good price for the product but there is a coal seam gas well on my land and pits. What do you think they are going to do to me? They are either going to be like the Fresh Food People and screw me for a cheaper price or they are going to say, "We're not interested." Even though it says "case by case" that is just another way of passing the buck. There is something behind all this because even the certification bodies are afraid. They do not want to put their heads on the chopping block. There is something insidious behind this whole thing when we can sit around like this and talk and smile at each other but we know deep down it is not moral and it is not right and it is going to cause lots of good farmers and good people to be very disturbed about what is happening. I would walk away. I could not morally do it. I know I am pushing the morals but I am a Quaker. I just feel there has to be a little part of that side that Wayne Somerville talked about. It is not all about the dollar. It never has been. The dollar will be gone in 50 years time but our water needs to be clean, our land needs to be pure, and our kids need to be happy and not sporting hunchbacks or something.

This is bigger than China and India; this is Australia. Where is the Australian virtue that we used to have where we looked after each other and cared about our farmers? All I have heard today is "compensation". I do not want your money; I want my land. I want the right to farm in the way I have always farmed. I do not want to have my inbox so full of emails. I get so anxious of a night because I think, "When are they coming to the farm near me?" We can talk about compensation and "Can we counsel you people?" like it is some sort of bad medicine that our mothers used to give us, such as cod liver oil. "Can we make something about this better?" No you cannot. Unless the science is there and it is 100 per cent safe we do not want it. We do not want it affecting our beautiful Northern Rivers and our beautiful farms or even the people who just want peace and quiet. We do not want it; take it somewhere else and let them tell you they do not want it.

The Hon. RICK COLLESS: Following on from what you said, Ms Ramsay, the submission states in one of the recommendations on page 2:

All CSG activity in NSW should be stopped to allow for comprehensive, rigorous, independent studies into the environmental, social and health impacts of the industry.

If those studies were to proceed and it was proved that coal seam gas activity is safe environmentally, socially and in relation to health, do you agree it could then proceed?

Ms McQUEEN: Prove it.

The Hon. RICK COLLESS: We may well have to do that. That is the benefit of technology and science that we have access to in this day and age. I am not saying that it is going to go ahead; I am just saying that the role of this Committee is to sort the wheat from the chaff, so to speak. We need to get the facts on the table, we need to remove the anecdotal evidence and the emotion from the issue—I know there is a lot of emotion—

Ms McQUEEN: I was going to ask how you do that.

The Hon. RICK COLLESS: That is true. It is very difficult for the Committee to come up with a range of recommendations so that we attempt to get the emotion out of it, put the facts on the table, and identify those areas that may need additional research and investigation. If that can be achieved do you think this industry could go ahead?

Ms McQUEEN: I thank you all for listening from the bottom of my heart. People do not realise how the farmers really feel. I have doorknocked. I live at the base of Lynch's Creek and I have doorknocked all the way from Kyogle to home, and that is a lot of houses. Farmers are scared. A lot of them do not have internet access so they write letters—a lot to local MPs and none of them respond. These are farmers that have lived on their land for five generations and I am fourth generation. It breaks your heart because it is everything that we have worked for. Yes, everything below the ground is Crown land, but what about the land we have on top? I

work on a dairy farm. Everybody is devoted to their land and their water. My boss gets up at 2.30 every morning—he is 79—and does not stop until eight o'clock. He has done that for the last 60 years of his life. These guys just want to come in and take over. Do we have no rights? Yes, okay, prove it but this is going to need big studies because I do not think the average Joe is getting heard. That is what breaks everyone's heart. I am just a dairy farmer and a mum that just wants to say, "Stop", because of our babies' health. It is not worth it.

Ms RAMSAY: You all have homes on half-acre blocks, although I do not know what your situation is.

CHAIR: I wish.

Ms RAMSAY: My home is a bit bigger. You have a right to say to people, "Don't come into my back yard." I live on a place and I can have strangers come into my zone and I feel that is wrong. I do not know these drillers. I do not know these people that will be on my land. I might fear for my safety.

Ms McQUEEN: One of my best mates on a farm found Arrow on her land. They did not even contact her. She said, "Who are you? Get off."

The Hon. RICK COLLESS: That is inexcusable.

Ms McQUEEN: That is how we are feeling in Kyogle.

The Hon. RICK COLLESS: We have heard a number of reports along those lines. I was talking to Dr Somerville earlier about the bullyboy tactics that some of these people use, and it is inexcusable. It could well be that one of the recommendations to come out of this inquiry is that any company that wants to enter your land for any purpose should at least have the common courtesy to knock on your door and say, "Hello, my name is such and such. Can we have a chat", about whatever it is. They do not seem to be doing that.

Ms McQUEEN: Even if you refuse, what if your neighbour on the other side says, "Yes, go ahead", and they frack horizontally. I have a friend in Tara who lives on 5,000 acres and he has been fighting off the gas companies from his land for four years. He went back from giving a talk at a meeting in Kyogle and found gas. He could light his water. His bores had a red tinge. He rang up another friend of the GAG group and said, "Please find us a house." Can you imagine that, having to leave your own home because someone came and tinkered with your water? He said no, so even people saying no are getting affected.

The Hon. RICK COLLESS: The issue of lighting bores has been going on for as long as there have been water bores in the ground.

Ms McQUEEN: Yes, but the chemicals were not in his bore before this started.

CHAIR: We are not going to enter into a debate here. We are running out of time.

The Hon. JEREMY BUCKINGHAM: I have a question for all of you. Thanks for coming along and having the courage to put in the submissions. How do you feel about the fact that none of the industry, neither Arrow nor Metgasco, had the guts to come along and address this inquiry today?

Ms McQUEEN: Furious. We have invited them all to three meetings and not once have they even replied.

CHAIR: I am sorry. I rule that question out of order.

The Hon. PETER PRIMROSE: In your initial presentation you talked about a proposal for a new legislative and regulatory framework. The first of the four items is the exclusion zones. Can you explain in more detail what you have in mind about exclusion zones and whether you have seen them working somewhere and what size they are? Can you expand that generally?

Ms CERESE: The general principle is that there have to be certain areas that are complete no-go zones, for instance, national parks. We already have a situation in the Northern Rivers where they want to put a major gas pipeline through a World Heritage listed national park. In this framework that would be a no-go zone: national parks, wetlands, beneficial use aquifers. If hydrogeographical studies are done about the connectivity and there is connectivity between any areas where they might be going to produce coal seam gas in beneficial

use aquifers it should be a no-go zone. At the moment in Queensland it is open slather. The principle I am looking at is that if the industry goes ahead there have to be areas that are totally protected, such as public lands and important food producing areas.

CHAIR: What about proximity to residential areas as far as noise and pollution are concerned?

Ms CERESE: I have included residential areas and homes. I think the response to Anna Bligh's proposal in Queensland to protect only communities larger than 1,000 people—a lot of farmers in Queensland who are feeling the impact are on isolated farms or small communities and they are outraged. Why would you protect only people who are living in communities with more than 1,000 people? It has to be everyone.

CHAIR: A recommendation came out of the wind farm inquiry we conducted that there should be no wind farm infrastructure within 2,000 metres of a residence. What do you think of that sort of buffer, given all the other considerations?

Ms CERESE: I think you would have to look at all the impacts but you would have to look at that sort of distance, not the current 100 metres or whatever it is.

CHAIR: We are just about out of time. Would you like to make a closing statement?

Ms CERESE: I would like to highlight that this industry is often sold to us as securing the energy future of the State and the nation. Look at the scale of what is proposed for the Northern Rivers. It is not about domestic power supply. The push to expand coal seam gas production across this State and what we are already seeing in Queensland is about export revenue. I would like to highlight that myth.

Ms McQUEEN: We are really strong people that live and work hard for the land. I have been on the land all my life. This is our livelihood; this is everything. How can it be morally right for our Government to continue to walk over landholders and limit their rights? Farmers have enough obstacles in everyday life with floods, pests, sickness and less income coming now. We have to fight this and, do you know what, we will, to the bitter end. I am sorry, but we will be there. It is not going to happen. It is not coming through Kyogle.

CHAIR: I will clarify why I ruled a question out of order before. None of the coal seam gas companies were invited to attend today's hearing here at Lismore. That was our decision. These companies have been invited and have indicated that they will appear in Sydney, most of them have head offices in Sydney. There is no attempt here to stack the meeting one way or the other. All the witnesses were invited here to have their say without anybody interfering in what they were going to say.

(The witnesses withdrew)

RICHARD DEEM, affirmed and examined:

CHAIR: Are you representing an organisation or appearing as an individual?

Mr DEEM: I am representing myself and my wife.

CHAIR: Before the Committee commences its questions would you like to make a brief opening statement? If you do not conclude your opening statement because we run out of time, you can table the statement and it will be taken into the record, so you do not have to rush.

Mr DEEM: I would like to make just some introductory remarks. Perhaps to save a little bit of time I could, with your leave, hand out some information.

Document tabled.

Mr DEEM: My wife, Gwen, and I have lived at Cougal for nine years. Cougal is at the top of Gradys Creek and it is in the foothills of the Border Ranges. We retired there from Maryborough in Queensland and we were impressed by the natural beauty of the area. I am personally appalled by the Lions Way pipeline proposal. It will result in the establishment of pipelines and gas fields in the area and it would encroach onto the world heritage listed Border Ranges National Park. Our 22-acre property is not on the pipeline route. I do not accept that coal seam gas should be embraced just because its carbon footprint is claimed to be smaller than coal fired electricity generation and that it is relatively easy to obtain. The long list of negative externalities associated with coal seam gas industry practice must be addressed: water, air, soil, noise, visual pollution, alienation of productive land, compulsory alienation of private land, reduction of property values, inability to sell affected properties, social disharmony and so on.

Coal seam gas industry growth both overseas and here in Australia has been characterised by an unconscionable lack of regard for our environment and our fellow humans. Last week my wife and I travelled to the gas fields near Tara. We saw acrimonious divisions between townies and blockies and sell-outs and it was a very unpleasant place to spend a couple of days. We noted the miserable situations of families who have settled on lifestyle blocks but whose properties have become almost unliveable with water, noise, light, air and other pollution emanating from neighbouring blocks. We saw volumes of traffic you would expect to see in city suburbs and high levels of roadkill. There were numerous off limits, security fenced, closed circuit television monitored areas with company employees who moved us on—we are two aged pensioners. We saw a huge evaporation pond and flaring tower at one production site which reminded us of the polluting nature of this industry. I have since discovered that permits were given to release 20 megalitres of wastewater per day for 18 months from this facility into the Condamine River. We felt relieved to get out of the area. I hope this inquiry results in an effective regulatory system that ensures that the Queensland and overseas experience is not repeated in New South Wales.

I have prepared a clarification of the issues contained in my original submission with photographs to help visualise those areas the Committee has been unable to visit on this trip. It focuses in large measure on the Lions Road section of the proposed pipeline and I just thought that my particular knowledge of that area might be of assistance. With your forbearance I would like to quickly flip through those photographs. The first page shows an example of the soil type in the area. You can see it is very much prone to washing away. The second page shows a landslip along the Lions Road lower section. The road is extremely susceptible to landslip. I am not trying to be provocative with photo 2.1; I simply needed to show you a photograph to show that it is a light traffic road. It is a very narrow road. It is only used by motor cars, certainly not trucks. To trench along on this narrow road will cause it to break apart and slip away, especially at the sharp edges. It is only a five-metre across road generally.

I will refer to photos 2.2 and 2.3. Firstly, photo 2.2 shows you an average section of the road. You can see a little bit of slip on the right-hand edge and there is not such a steep cutaway down below the road but I have got other photos that will show you steeper sections. If you would like to envisage that trenching bulldozer, you have got a pile of spoil which I would say would be a couple of metres wide, you have got the width of the bulldozer which I would say would be two or more metres wide, perhaps three, then you have got the pipe, the pipes laid out for laying. If you go over the page to photo 2.4 you will see that there then needs to be a track of bulldozer width on the outside of the pipeline so that it can lift the pipe into the trench. So the combined width is

spoil, trench, pipeline and then another bulldozer width. That type of width is just not available on the Lions Road and we are extremely sceptical about what any company might do to achieve its objective of pushing a road through there.

I crawled into one of the culverts just in the cause and you will see on photo 3.2, light traffic road notwithstanding, the inside is on the way out. That photo 3.1 is the top of that 3.2. You can see the drop offs on both sides there and my point is that a trenching bulldozer going through there will just facilitate both sides of that culvert to fall away and massive repairs will be required. It would be reasonable to just say, "Well, that's fair enough, if the pipeline company wants to do it they could just repair it," but I imagine that there would be massive repairs required with extensive cutting into areas that are now the Border Ranges National Park. The whole premise of the pipeline going underneath the road during its passageway across the heritage listed Border Ranges National Park is to sort of assert that the pipeline does not have anything to do with this area, but in truth and in reality it just does in so many ways.

I have got a couple more photos of culverts. If you look at photo 3.4, that is just an ordinary culvert. You can see some Lock the Gate activity above it. Again I am not trying to be provocative. But you can see the depth. You cannot get a very clear view of where the pipeline is but I would say there would be less than two metres of soil above that pipe to the surface of the road. So you are expecting a trenching bulldozer to go through there and for it not to all fall apart and for it to in fact stay upright. I have great doubts about that and so have many people. Just a final photograph in that area of drop off, if you look at photograph 3.5 there is a motor vehicle in the centre of that photograph and, quite typical of that road, are steep drop offs along the road. So a trencher going through there has every potential to divide the road in two with spoil going back, and there will be sand going in with the pipe to make sure it is not damaged by rock fill going back, so there will never be any rejoining of the soils but you will have the outer edge of the road falling away, falling away, falling away. Just going back to photo 3.1, it has taken many years to stabilise that bend. There have been numerous replacement culverts but it just keeps falling away.

I would like to move to probably the most important part of this problem that I see in the Lions Road section under the Lions Way pipeline and that is that it passes through the world heritage area. This is a critically important area. Possibly some of you are not aware of the nature of the importance of this area. It is known biogeographically as the Macleay-McPherson Overlap Zone. McPherson Range is on the subtropical side and Macleay temperate zone is on the lower side. The flora and fauna specific to those two separate zones coexists in the Border Ranges region. It is such a biodiversity hotspot. So it is the southernmost limit for many tropical species and the northernmost limit for many temperate organisms. It has the highest biodiversity of any region in Australia except the Daintree, so it is a critical region. While the region is recognised as one of the highest areas of biodiversity in Australia, a disproportionate number of rare or threatened species occur in the Northern Rivers. I have found 77 endangered species of fauna and 31 endangered species of flora. The Border Ranges National Park is the haven. I have included some information about the typical species resident in there but I will not trouble you to go through them.

Down towards the bottom of that page I am asserting that it is not appropriate to allow a gas pipeline to traverse a world heritage national park. Not during the pipeline construction period and not after construction for pipeline maintenance or inspection with attendant significant volumes of pipeline-related road traffic including heavy vehicles and equipment or even low flying helicopters. It is not appropriate. The argument proposed by the proponents of this pipeline that the pipeline technically does not encroach into the world heritage area whilst it is obviously cutting a swathe through it is fatuous. Figure 5.0 shows a diagram of gas wells located in the Northern Rivers area. You will notice the concentration along the pipeline route. You will have come in from Lismore to Cedar Point and you can see the pipelines kind of centring in that area. Residents are rapidly realising, but only just recently, and becoming incensed by the fact that it is not just an underground pipeline. Everybody was saying, "Are you on the pipeline? Are you on the pipeline?" It is not that; it is a gas field, and so it is harrowing.

I can remember hearing the previous speaker saying there will be 2,500 wells to serve Metgasco's needs. I do not know about Arrow's. Two thousand five hundred wells and there are 26 there. I invite you to look at the photograph numbered 5.2. That is the inference that this area you have travelled through today will become like Tara. I think you are going to Tara?

CHAIR: We have been.

Mr DEEM: That is what we are looking at. Let me move down to agricultural land. There is a tremendous amount of agribusiness, as you would have noticed, particularly in the Richmond Valley. That is the area of my concern. We have all sorts of crops—lucerne, maize, soy, fruits, avocados, macadamias, pecan nuts, coffee plantations, and a timber plantation that the pipeline is proposed to go right through. It is high-value agribusiness land. It is fertile river flats. It just is not appropriate for a gas field, and that is where the interest appears to be focusing—on a gas field. There are a couple of photographs there showing a pecan nut plantation and a lot fed cattle area. The timber plantation is the photograph numbered 6.3. Becoming much more common these days are properties with the "For Sale" sign out, but they are remaining out at the front for many, many months. That is a macadamia farm at Lynchs Creek.

I move on to the photograph numbered 7, which shows local infrastructure. I am just making the point that to run a pipeline through this area, something will have to be done about the infrastructure. The council at Kyogle has not been able to keep up with repairing bridges. It has the largest number of wooden bridges in the Northern Rivers area. We often have periods when areas are not serviced by a bridge because the money is not there to rectify damage that may have occurred during floods. The Lions Road, at its beginning on the New South Wales side just down the road, has a large bridge with a sign saying, "Load limit". I could perhaps have photographed that one instead of the other one at the bottom of the road, but instead of going on that bridge the vehicles detour over a five-creek crossing unsealed section of Gradys Creek Road, which often is flooded.

I have a few more pictures numbered 7.2 and 7.3. You can see a culvert has been washed out in the photograph numbered 7.3. It is still displaced, but that is a heavy-trafficked road. That creek going through there is a known platypus habitat. My property is along that section and I just feel for those platypuses. I can just imagine all the silt that will be stirred up and just passed down that creek. In relation to fires, the proliferation of wells would leak, as they have in Bentley in this area and in other areas: it just seems to be part of the process. That would add to the ignition sources for fires. I am a deputy captain of the Wiangaree fire brigade, which is the brigade that has responsibility for Lynchs Creek, Gradys Creek and up to the border areas. I took the opportunity while in Tara to discuss what their approach to fires in gas fields is. The gentleman I spoke to said, "Our strategy is to move back. We have a protocol which just says, 'Don't approach. You really don't know what's going to happen or what could happen.' "

I did observe in the many cleared areas between wells and production sites that cleared timber, which you may recall, and cleared windrows along the tracks have not been burnt off. I am told they will not be burned off because it is a gas field. I just said, "Well, what if fire does come to this area? Those windrows would be a tremendous fuel source to provide tremendous radiant heat onto those infrastructure items in the production areas." The company has acknowledged the obvious fire potential everywhere on their cyclone wire fences, "Fire Area"; you know, be careful. And the clear areas, by the way, just have no relevance when you are having an ember attack, especially in our areas.

The country north of Kyogle is an active bushfire area. Numerous fires are currently alight. Just referring back to the photograph numbered 6.2, you currently do not get a good view of that, I noticed when coming here today, because there is a fire. Smoke is just all over that pecan nut farm. The country north of Kyogle is an active bushfire area and we have had major fires. Even in Cougal, we had what they call a section 44 fire there, whereby the Minister takes control and there are virtually unlimited resources. I am just pointing out the juxtaposition of a coal seam gas pipeline and large fires. Make of that what you will.

Finally I guess I do not need to point out to you the history of opposition, No. 9, in this area. It seems to begin with Terania Creek old-growth forests and the big scrub protests that that built, including the North Eastern Forest Alliance campaign to protect old-growth forests, and the Timbarra goldmine blockade near Drake; the rare earth plant at Tuncester with 5,000 people, and more recently a motor rally. People are extremely concerned about the environment in this area. Do I have time to do a final summary? I could hand it in.

CHAIR: I would prefer you to hand it in. I would like to give the Committee an opportunity to ask questions.

The Hon. GREG DONNELLY: I refer specifically in your submission to page 11 at point 7, "Suggested Remedies". You refer to a report or a document by George Houen of Landholder Services Pty Ltd. What do you know of that particular report and the history of it?

Mr DEEM: Not a lot. At that stage in my submission, I was thinking this is all very doom and gloom. I really need to be putting in something positive into the debate. I came across that material. I tried to contact George Houen, without luck. I have thought lots more about those recommendations and I would not put them up again though, not all of them; some, I would, but certainly not the reinjection one. I think that process is not fully understood, but I am not an expert in that area. The storing of produced water in tanks or dams is not new, and that five-storey deep produced water turkeys nest type of dam at Tara is I guess what George Houen is sort of proposing. It is not satisfactory if all of a sudden you can get an exemption and let it out into the river.

Dealing with salt, his suggestion of tipping in into the ocean does not resonate now with me. Everybody I speak with says that the salt problem is not solved. They are saying that maybe we can produce it. There was a program last night on television, SBS, where they were saying maybe we could process it and come up with something, but the volumes appear to me to be too big. As regards fracking only when the risk of water contamination is minimal is too vague. At the risk of causing how much and what type of damage? These coal seam gas proposals and environmental justifications and so forth often contain such vague language in my view that those are the areas where things are sort of coming undone. I would stick with the idea of independent baseline monitoring studies because I know a lot of groups are trying to find money to do their own. It should not really be their responsibility to try to establish that and pay for that very expensive process.

The make-good provisions seem to me to be a bit nebulous really in an instance where the damage, if caused, is not going to be able to be made good, if it is an aquifer problem. It will take long periods of time that we heard about earlier this afternoon. The rest I kind of agree with, but I have really gone back on that.

The Hon. GREG DONNELLY: You have reflected on it?

Mr DEEM: Yes.

The Hon. RICK COLLESS: There has been a lot of discussion about the Lions Road going through the Border Ranges National Park. Can you tell the Committee the distance that road travels through the national park?

Mr DEEM: That is a good question. I have been able to only just find a semi-reliable copy of the pipeline route.

The Hon. RICK COLLESS: It does follow the Lions Road through the national park. Is that the case?

Mr DEEM: Well, it follows private land parallel to the Lions Road.

The Hon. RICK COLLESS: Before the national park?

Mr DEEM: Over the scenic railway loop and then it joins a little road, which is a viewing area for the railway scenic loop. As far as I can gather, but I really cannot say for sure, I understand it goes underground there and then moves up. Now that is around three kilometres. The overall road is 11 kilometres.

The Hon. JEREMY BUCKINGHAM: What would it mean to you if the development goes ahead? You have moved into the area. If the pipeline goes ahead and coal seam gas goes in, what will you do?

Mr DEEM: I do not know what I would do. My wife said something interesting to me coming here, as they do. She said, "You know, that situation we experienced in Tara", she said, "it's happening in Kyogle now." By background, I had spoken to the Lions Club to see if they had a position on the tunnel going under. Their constitution requires that they do not become involved in political matters. But nevertheless, there was a Lions Club fundraiser on the footpath yesterday, I think it was, or it might have been this morning. Gwen went past and kind of saw that it was a Lions Club fundraiser and she said she kind of subconsciously kept on walking, not because we have any antipathy really towards the Lions Club. But she said to me, "Well, that's the beginning, isn't it? That's the beginning of the division." I know one of the people who has a well on his property and I have not really seen him or spoken to him. He is a fellow fire brigade member. But there is a distance that gradually develops, I am sure. What would I do?

We spoke about selling the property as well and Gwen said, "We could go to Bellingen or Nambucca. Maybe the best time, if the pipeline is not approved, would be to put the property on the market on the very day it is not approved." These matters have a tendency to be pulled out of the drawer again on a later occasion. I

guess I am saying it is always on our minds. I am very much bound up in the Border Ranges National Park and I do lots of long walks in there and I see the wildlife, which really cannot be seen from the road. We saw the road kill at Tara and I thought to myself, "Wow, what would it be like to see that sort of road kill on Lions Road—the quolls and the other threatened species? I guess they are not more valuable species but they are certainly threatened species. I do not know if I have answered your question.

CHAIR: Whether you have answered it or not, our time is running out. We would like to thank you and Mrs Deem for attending the hearing today and for your very detailed submission. This is the sort of thing we really appreciate because we cannot get out and have a look at a lot of these things. We just do not have the time.

(The witness withdrew.)

(Dinner adjournment)

GREGORY JAMES McNAMARA, Chairman, Norco Co-operative Ltd, Windmill Grove, and

JEFFREY THOMAS COLLINGWOOD, Milk Supply Manager, Norco Co-operative Ltd, Windmill Grove, affirmed and examined.

CHAIR: Would either or both of you like to make a brief opening statement? If you have a prepared statement that can be tabled and taken into evidence.

Mr McNAMARA: Both of us would like to make a statement. I will make some statements about the industry and Jeff will make some statements about the effects of coal seam gas on farmers. Firstly, I would like to remind people that Norco is a food-producing business. We have 165 farmers supplying us milk across a region from north of Brisbane to Dungog. Much of our milk supply is directly impacted by coal seam gas. Somewhere within most of our milk supply areas you will see we have coal seam gas drilling. On top of that we have a food business that manufactures ice cream and fresh milks and employs about 600 people, with the business grossing about \$350 million a year.

CHAIR: Where is the manufacturing plant located?

Mr McNAMARA: We have three manufacturing plants; one is at Labrador, which is near Coolangatta/Southport, one in Lismore and one in Coffs Harbour. We have 25 rural stores that service the rural sector. They are based from Dungog to as far as Bundaberg. We wanted to explain to you today that one of the key areas the inquiry needs to understand is the integrity that the regional brand has, not only of Norco but of regions in New South Wales and South East Queensland. We raise that with you today because we have found recently there is enormous interest on an international basis in organisations such as Norco that are producing food and not just in us for supplying a product. That has come about because the integrity of food in some countries has been compromised. The most recent example was the melamine issue in China. One of the things we have found recently is that the Chinese have an enormous appetite for Australian product that has an enormous amount of integrity.

One of the opportunities we have found is to sell the clean green image. I know we all talk about clean green as the stable environment we live in but that is exactly what the Asian community looks for. They have caused damage to the integrity of their own brands and they are looking for others. Now they are looking for Australian products. What we do not want to see is the process of drilling for gas interfering with our waterways or contaminating our waterways to the point where our farmers cannot produce milk or our milk sales or products are jeopardised at an international level because of processes that we do not control. We believe that fundamentally some serious work needs to be done on undertaking programs to make sure the process is safe and does not impact the environment enormously. Jeff will talk about some of the farm issues and I will summarise at the end.

Mr COLLINGWOOD: Speaking on behalf of our farmers I would like to say that country people should have rights too. If coal seam gas was put in the middle of city and town businesses there would be a lot of upset people. We seem to have overlooked the fact that farmers are also small business owners and the rules of engagement with them have been poorly defined. Our dairy farmers have made significant investments in their dairy businesses to supply high quality milk for their local markets. Dairy farms are highly developed businesses based around high productivity and prime agricultural land. To take out one paddock of the operation for coal seam gas could put the whole of their business at financial risk. We believe gas exploration and extraction should not be allowed on prime agricultural land and nearly all dairy land would be classified as this.

To overlay another business enterprise such as coal seam gas on top of an existing highly productive dairy enterprise is quite problematic. Establishment of coal seam gas wells will affect hugely the day-to-day management of the dairy farm. Taking key parts of a dairy farm property for coal seam gas may well make that dairy farm unviable. In addition, questions remain on the environmental consequences of salty water and water table levels, which have been discussed at length today. Coal seam gas development also threatens the critical mass of dairy farmers in the region. A delicate balance currently exists between supply and demand for milk in the region. By "region" I mean South East Queensland right down through Sydney.

The devastating floods across New South Wales and Queensland in January this year highlighted the dairy sector's ability to effectively manage the supply of fresh milk into local markets given the current distribution of dairy farmers. Coal seam gas development in the regions would clearly impact on the ability of

the dairy sector to achieve this in future. When we could not get milk out of South East Queensland the floods stopped about the middle of the day down through the Northern Rivers and we were able to get our milk and get it into Labrador and from that factory we supplied all of the needs of Brisbane and the broader South East Queensland and New South Wales areas.

Food security is every bit as important as energy security. Clearly, a balanced approach to this issue of land use is required. It makes no sense to take prime agricultural land out of production when alternatives are surely available through careful planning. We have seen the effects of mining on the retention of prime agricultural land in many areas, particularly in Queensland. One by one properties are taken out of agricultural and food production. Certainty is required for dairy farmers so that they can continue to invest in their businesses with confidence to supply the food we need in our regions into the future.

I ask everyone: Where do you want to be in 20 years time? If the approach to coal seam gas is not changed you will have your gas but you will not have your food. Farmers do not have deep pockets to fight this cause. The only way to move forward is through good legislation.

Mr McNAMARA: In summary, what we would like to see is a moratorium on further coal seam gas development until a socioeconomic impact statement has been done on the impact on relevant communities, including farms. We would like rules of engagement developed for contract negotiation and operations monitoring which give farmers a level playing field. We want rights given to farmers to refuse drilling on their land. We would like fracking to be banned until proven safe. We would like environmental considerations around water quality and volumes to be satisfied and we would like to see fundamentally prime agricultural land protected for future generations.

The Hon. PETER PRIMROSE: You mentioned numbers of dairy farmers in other areas which have ceased production. Can you quantify that with any instances from Queensland, for example, or anywhere else that relate directly to the development of coal seam gas? Can you point to where that has led to a reduction?

Mr COLLINGWOOD: Our concern is that will lead to a departure of farmers through the region. Once we start going along the river valleys, one by one the farmers will disappear. As I said, milk supply and demand is in delicate balance and if we lose farmers it means we have to go further afield to find that milk. It adds costs to the Norco business to bring that milk in.

Mr McNAMARA: The second part of the question relates to whether coal seam gas drilling and exploration can fit with the dairy farming sector and agriculture in general. One of the issues that the Committee needs to understand is that farming on the coast is completely different to farming in larger farming enterprises. A farm on the coast could be a small hobby farm of five acres or a larger farm of maybe 200 acres, but the reality is each farm is made up of small paddocks and the area the gas companies take for drilling, the roads they put in place and the environment on the coast where it rains on a regular basis—thank God—mean I do not believe it is compatible. You cannot have lights, travelling trucks, dust and noise. The reality is the houses are not much more than 400 or 500 metres apart in most instances so I am not sure how we can co-exist in the current environment with the current processes.

The Hon. GREG DONNELLY: What are the farmers with whom you have a milk supply arrangement saying, if anything, to you as a company about their attitudes or concerns in relation to coal seam gas? Have they got something to say or are they just waiting and seeing? What is their position?

Mr McNAMARA: They are not waiting and seeing. They are very vocal. They are very concerned about it. They feel they are being played off and the ones who are being picked feel they do not know how to manage the issues. They do not believe they have the negotiation skills to say no. They are unsure and it is causing an enormous amount of pressure. They just do not know what to do. That is why we talk about having a level playing field. Three guys arrive or three or four dozen people—it does not matter how many it is—from a large organisation with many resources and trained people. They are put against one farmer. There are no rules of engagement and that is not an equal playing field. They need to be able to negotiate on equal terms and say no if they want to. I think that is a fundamental issue in Australia. We should have the right to say no if we do not want that on our land. At the moment no-one feels they do have that right.

The Hon. JEREMY BUCKINGHAM: I have got one brief question and then maybe one that might need some more fleshing out. You say in your submission you have 600 employees and you are serviced by a

couple of hundred different farms, dairies. Those dairies do not include your 600 employees; they are separate to your actual enterprise?

Mr McNAMARA: Absolutely, yes

The Hon. JEREMY BUCKINGHAM: So it is probably more than a thousand people because those dairies would be employing a couple of people?

Mr McNAMARA: Yes.

The Hon. JEREMY BUCKINGHAM: My question is when you consider drought, water availability, competing interests, how important is access to clean water to your industry?

Mr COLLINGWOOD: It is everything.

Mr McNAMARA: You cannot operate a dairy farm without clean water. If a cow cannot drink clean water you have got nothing. If you cannot wash your dairy down, if you cannot wash your milk vat—water is our business. We cannot live without water but I am just trying to think about how to answer your question. Water is everything. We cannot operate without water. I think the position I would like to make clear is that the interest from wealthy international customers about the integrity of our brands, and when I say brands it is not about the Norco brand, it is about the region's brand—there is enormous value in our regional brands. We sell that everywhere. It is on the export market in a number of brands in all agricultural pursuits. We cannot jeopardise that. That is what people are looking for. They have jeopardised it in their own environment. We are now supplying products to the Japanese. If you looked at the dairy sector in Australia, it is doing extremely well because the Japanese prefer to buy Australian product because they do not trust their own. So why would we even jeopardise a process of fracking or contaminating our water supplies and running the same risk that they have run? It is incomprehensible.

The Hon. Dr PETER PHELPS: In relation to farmers having a right to say no on lands, if there were a veto power put in place in some future legislation do you think that would satisfy your requirements, or do you want an ability to, if you like, not only veto coal seam gas on your own land but coal seam gas on your neighbours' lands as well?

Mr McNAMARA: I think it has got to be both. You have got to take both. When you have got land with neighbours that are so close, I think you have got to veto both.

The Hon. Dr PETER PHELPS: But that kind of cuts across the individual property rights argument.

Mr McNAMARA: I know that now. I am not a lawyer and I do not know how to actually manage that but I would suggest that is one of the primary issues the Committee has to address. How do you manage the issue of one property owner saying yes, yet the other property has got a house within 50 metres of the original boundaries? I do not have an answer. I would like the Committee to find those answers for us.

The Hon. Dr PETER PHELPS: You said that you exported to China.

Mr McNAMARA: To Japan.

The Hon. Dr PETER PHELPS: To Japan. You do not have any moral problems with exporting Australian produce to overseas? Because earlier in the day we had some concerns about natural gas that was produced in excess of the requirement being sold to overseas countries. I just want to make sure there is no moral problem with selling Australia's resources overseas.

Mr McNAMARA: No. We take a very sincere approach in how we actually manage our business. I will explain that because I think it is worthy of explaining. Our business is a 116-year-old business but in the last 50 years we have predominantly developed a domestic business. In the last seven years we have gone back and actually started to develop an export business based on the fact it is a global economy and we need to be able to de-risk ourselves from just being based in one area. So we are investigating certainly the Japanese market—we are in that market. Actually as we speak in the last week we have had people in China visiting people that have actually showed inquiry to us. So there is enormous interest in Australian product to be taken overseas.

The Hon. Dr PETER PHELPS: Not just agriculture?

Mr McNAMARA: Well, absolutely but I think food is life and I think the Committee and the governments are challenged with do we take the short-term gain of actually taking 50 years of gas or we do crucify our prime agricultural land and lose it forever?

CHAIR: Has the export market allowed you to take a bit of a stronger position perhaps as a price setter rather than a price taker in the domestic market? Has it improved your competitive position?

Mr McNAMARA: Absolutely.

CHAIR: Great. The second question: Does the co-op offer any of its members any sort of advice or a collegiate approach when one of them is approached by one of these companies? Do you provide any sort of legal or other advice to them?

Mr McNAMARA: We do not provide legal advice. We would offer some counsel and we would suggest that they actually seek some legal opinions. But one of the reasons we represent today is to ensure we use our role as an advocacy organisation in some areas.

CHAIR: I understand that.

The Hon. SCOT MacDONALD: You are pretty close to your suppliers. Have you seen any impact on the value of the land or dairy businesses at all in this preliminary stage of coal seam gas?

Mr McNAMARA: No, we have not.

The Hon. RICK COLLESS: Mr Collingwood, I am quoting you as close as I can remember, you mentioned that taking key parts of a dairy farm for coal seam gas may make that dairy farm unviable. What are you basing that on in terms of the infrastructure that the coal seam gas operation may place on the dairy farm? I will preface your answer by saying that we have seen the situation around Chinchilla and Tara and that area where the wells were somewhere 600 or 700 metres apart which obviously had a big footprint on an area where the properties were only 200 acres or something of that nature. So are you basing that on a similar sort of overlying infrastructure model?

Mr COLLINGWOOD: To me it is more concerning where we start to talk about coal seam gas on high rainfall areas and water intensive areas compared to say western areas. If you come into a paddock which the farmer may have had in the family for several generations and have developed their farm enterprise and if it is a key piece of production, they have invested infrastructure there in terms of irrigation, they adhered to all of the environmental issues that have come up to be responsible citizens and then for a truck to go in there and find a way in through a wet paddock they are going to have to put a lot of gravel in there. I saw a photo of a well being established up Beaudesert way, one of our suppliers lives up there, they have got a little excavator in there. So we might end up with a small footprint in terms of where the gas is coming out but we have a large work area where that is established and it is very hard to reclaim soil to its rightful production.

The Hon. RICK COLLESS: That is on a pad by pad basis. What I am getting at is do you see if the drill pads were more widely spaced it would have a potential lesser impact on the land?

Mr COLLINGWOOD: I just would not like to see it in the middle of a business operation. Like I said, I would not like to see it in the middle of a business operation in Lismore township and I would not like to see them in the middle of a business operation out at Kyogle or Casino. I think what we have got to remember about these farms is that they are not nice idyllic retreats for these people. These people are operating businesses on them and we are asking them to accept people onto their land to disrupt their business and it is a huge issue for those farmers.

The Hon. RICK COLLESS: One of the discussions that I have had with Santos, and you will appreciate that we have had lots of discussions with lots of different companies about all of the intricacies of this process—one of the issues that Santos has said to me personally is that they are looking at doing a lot more lateral drilling rather than vertical drilling and they anticipate that they could eventually spread their well heads

out to something like a 10 kilometre spacing rather than 700 metres which would have a lesser impact on the individual property.

Mr COLLINGWOOD: I guess the impact for the dairy farmers is where you have got an irrigation block which is a highly productive area and if perhaps by chance that particular well has to go in that particular paddock, our cows are milked twice a day, so they come and go twice a day, sometimes even more throughout the day. They have got to build even more infrastructure to work around that and it does become quite problematic.

CHAIR: Your industry, I guess perhaps like piggeries and other intensive husbandry industries, tends to need to operate with a minimum disruption to your animals. With dairy cattle, do you see that ongoing operations would have any effect on their milk?

Mr COLLINGWOOD: Huge. In terms of upsetting cattle, we can be treating cattle for something one day and the farmer will say to me they will be down production for that day because we had to treat them for external parasites or something like that. If you have got a lot of activity going on, trucks coming and going, people there, cattle are very sensitive animals and it is certainly going to affect them.

The Hon. RICK COLLESS: Stress will stop them milking also?

Mr COLLINGWOOD: It does. As we have seen through the floods, the floods have also gone down through to New South Wales and Kempsey recently, they started up here in January, some of our farmers sell cows. We measure stress levels in cows, they are only just starting to come back to normal now and it has taken our farmers a lot of work to get them back to those levels, so stress is a huge issue for dairy cows.

The Hon. GREG DONNELLY: One of the arguments we have had put to us is that with respect to farmers there is some appreciation by at least some of them to be able to diversify their income from not just the sole derivative of the farming business. In other words they might have interests elsewhere which all help to contribute to the income stream of the business. The argument as it goes is that with coal seam gas mining income that can be derived from that by an individual farmer will contribute to the overall income of the farm and that is part of the so-called benefit of coal seam gas drilling and exploration. Do you see any benefit at all of income being derived from coal seam gas mining for farmers to add to their income?

Mr McNAMARA: I do not believe so because I think the vein I would take on this one is I do not believe our communities can coexist together when one farmer gets a royalty and the fracking process contaminates the water supply. I am not sure how the two can live together at that point in time. Until the process is absolutely safe I do not believe that the farming community should be divided. That is the way it will work: One will have and one will have not. I will encourage the Committee to legislate or make sure or to take recommendations back to the Federal Government to ensure that there is an absolute safety level taken to ensure that the community's water supply is protected in the future. Not just today, but for a lifetime and forever.

CHAIR: Would either of you like to make a closing statement?

Mr McNAMARA: I would like to reiterate the process that fundamentally I think the Committee needs to take some recommendations back to the Federal Government that economic impact statements are beyond just the drilling and how communities are going to be impacted. I think they need to be independently undertaken. You cannot ask a drilling company to undertake those. They need to be independently undertaken.

We want some rules of engagement for the farmers to ensure that the farmers are not put in a position of taking an option that they just cannot—when they should say no and they just feel that they cannot. We want rights given to farmers to say no. I think that is an absolute. We want the fracking process to be banned until there is proof to say that it is not a danger to the communities and the waterways. We want the Government to consider the environmental impacts not only on our water but also on our communities. Ultimately, we want the prime agricultural land protected so that future generations can live off our land.

CHAIR: Thank you, Mr McNamara and Mr Collingwood, for giving us your time.

(The witnesses withdrew)

LEONARD DEAN DRAPER, Private Citizen, affirmed and examined:

CHAIR: Before the Committee commences with questions, would like to make an opening statement?

Mr DRAPER: Yes, I would. Thanks for letting me speak today. I am a bit nervous. This is the first time that I have spoken in public, but I am doing it because I am frightened that our way of life and our children's future are being destroyed. Over the last 18 months I have been researching coal seam gas and the activity in my area. I have become very concerned about what I have found. I am not an expert. I just want to be a voice for my friends.

While looking into it I have met a lot of local people who are doing the same thing. They are mums, dads, farmers and the Elders of our community. We are worried that we are not being sufficiently informed of the risks and extent of the impacts of coal seam gas mining. We already have seen serious damage with our own eyes. I looked at leaking, bubbling and flooded wells near Casino this morning. I am not sure if you were taken to them during your tour: probably not.

We have all experienced the indifference of the local council and members of Parliament [MPs] when expressing our concerns. I have friends living with gas wells. They grow food for local consumption. They have been dealing with the noise, lights and emissions for several years. They can see the flares. They can hear the generators. They have found wells leaking and bubbling on numerous occasions. I have found drilling fluid pits with ripped liners, overflowing contaminated water dams, and I have seen other badly maintained drill sites—some very close to town. And this is only exploration. What happens when they have thousands of these things?

I am frightened. I am anxious. These friends of ours are in tears regarding their houses, and they cry. None of the academic research that I can find supports the claims being made by the gas miners. In fact, it is the opposite. There does not seem to be any scientific evidence to suggest that coal seam gas mining will not harm water reserves. When you consider emissions, it is clear that coal seam gas is not actually a clean form of energy. We are scared about the health dangers from air emissions and water contamination, about the depletion of aquifers, and we do not believe that these companies can fix them once they are poisoned.

We are concerned about the massive size of the gas fields and infrastructure that comes with that. We are worried about the dangers of having a gas mining operation of this scale in a known flood area. We are worried about the rural infrastructure like roads coping with coal seam gas mining, about the damage being done to our food production, about the damage being done to our food production reputation, and about our land values. We are worried that the economic benefits will be relatively short term, and only a few will profit. We are worried about the rush to get the gas out of the ground will lead to unnecessary mistakes and disaster, and that we will be left with a legacy of abandoned wells breaking down into the future.

Can you imagine how difficult and dangerous it will be for the Rural Fire Service to deal with a raging bushfire in the middle of a gas field? The proposed pipeline from Casino to Queensland goes through the national park and over the Border Ranges, which are World Heritage listed areas. Local farmers also tell me it also goes through some of the best cropping land in Australia. If this pipeline goes through, expansion of the gas fields will be unstoppable.

Our fears are caused by limited community consultation, self-regulation of the mining industry and the fact that only company information is available to us. Everything else we have had to find out on our own. Presentations by the gas companies have a lot of assertions and not many references to prove their accuracy. Some things that would make us feel safer would be to make sure that all data from mining companies is independently verified. We need to call a complete halt, with no time limit, on all existing and new coal seam gas until independent studies have been completed and strict regulations have been put in place.

CHAIR: Mr Draper has not finished. I ask the audience to hold their applause until then.

Mr DRAPER: The local authorities need a bigger role. I need someone to take my concerns to—that will not just say, "Contact the company", like the Richmond Valley Council did to me when I brought evidence of damaged wells leaking and overflowing. I think you need to stop it, check the facts, and then go from a position of knowledge. Finally, on behalf of my friends, I would like you to recognise the traditional owners of this land and make sure that you consult with them. That is very important. Thank you.

The Hon. SCOT MacDONALD: You say that you followed an incident of some sort or the other and you went to the Richmond Valley Council. It does not sound as though you made a lot of progress. Have you approached the State Government or the Office of Environment and Heritage, or someone like that, because they are the regulatory compliance authority?

Mr DRAPER: I went to the council, then I went to the company, and then I went to the newspapers. Then it was fixed.

The Hon. SCOT MacDONALD: And what, I am sorry?

Mr DRAPER: After I went to the newspapers, they did something about it. Until then, nothing was done. I went to the newspapers and they went and took photographs and printed it. The company admitted fault. They called it bad housekeeping. I call it environmental damage.

CHAIR: You can name the company, if you like.

Mr DRAPER: Metgasco.

The Hon. JEREMY BUCKINGHAM: Thank you for your contribution. You state in your submission that there are several coal seam gas wells in your area with constant flaring and that you have felt the physical effects of those wells and the air emissions. Can you elucidate on that, please?

Mr DRAPER: Well, if I go anywhere near the wells—like, they are close to the road, so just driving past the wells, the flaring ones—I can feel it just feels like a slight sort of dizziness. Then if I actually stop and get out of the car, within about five minutes it feels like a dizziness or cotton wool stuffed into my head, confusion, and that continues for several hours after leaving the area. That is standing near ones with the flaring and the big flame coming out.

The Hon. GREG DONNELLY: The issue you have raised of overflowing wells, can you just describe for us what that is so that we can get a better picture of it precisely? What is an overflowing well that you have observed?

Mr DRAPER: Overflowing drilling ponds. They dig these ponds or pits. They fill them up. They put a plastic liner in them and they use that to store like drilling fluid, or anything when they are drilling the well that they recycle back up into these ponds. That is where they store it. I have seen ripped and torn liners with like, I do not know, wallabies or something like that that have got in there, in the fence. They had this little plastic fence around it that was all broken and fallen over, and all the plastic and everything in there was all ripped and torn. So that water and things that were in there was just going straight into the underground.

Next to that was the produced water pond where the water that comes up from underground is pumped into this pond, and then they take it away in trucks. That pond when I saw it was absolutely full. You could see where it was continually overflowing. When I talked to the company about it, they told me that it was not overflowing, that they brought trucks in and continually pumped it away. But I have videoed it and you can see all the grass has been dying. The grass is all dead where it was coming out. In the video you can see that it is filled right to the brim. I have got all the videos and I have got photographs.

The Hon. GREG DONNELLY: And when you talked to the company or you made contact with the company, who have you spoken to?

Mr DRAPER: The CEO, Peter Henderson, and the land manager. I cannot remember his name at the moment—Hamish—those two guys.

The Hon. GREG DONNELLY: If I am quoting correctly, these issues have been described as bad housekeeping issues. Is that the phrase they have used to describe what is happening?

Mr DRAPER: That is the phrase that they used in the newspaper. That is what they told the media. They called it bad housekeeping.

CHAIR: On that point, what did they actually say to you? What was their response personally to you? Did they describe it to you as bad housekeeping and tell you that you were wrong, or what?

Mr DRAPER: Hamish told me that that pond is filling up and they cannot stop it and that the water is coming up from underground somewhere. They are not sure where it is coming from. I asked Hamish how it could be filling up because the main produced water pond, the rubber in that, he claimed it was intact and it is continually filling up. I said, "Where is the water coming from?", and he told me that it is coming from underground somewhere but he does not know where. I said, "How could it be getting into the pond if that rubber is intact?" He did not have an answer for that.

CHAIR: It is a good question, actually.

Mr DRAPER: And I asked him, "Where is coming from? Have you cracked an aquifer? Have you abandoned this well because have you cracked an aquifer?" They denied that, so that is as far as I know.

The Hon. RICK COLLESS: In your submission you make the point that concrete well casings do not extend the full depth of the well. What basis do you have for saying that? How have you come across that information?

Mr DRAPER: Like I say, I am not an expert, but from my research on the internet and from the way the drilling is done, I understand that when you drill down to the coal seam, you go through various aquifers. You might go through holes and you might go through great big gaps underneath the ground. You might go through an aquifer. There are cracks and fissures all the way down to the bottom. So it is physically impossible for you to pump a concrete band around that steel band, all the way to the bottom of the hole, because once you get to one of these aquifers, or wherever you are going through, you would need to fill the entire aquifer up with concrete, for example. They cannot go all the way to the bottom of the well. They can only go down a certain way.

It is at the bottom of the well, when they release the pressure of the water, that the gas or some of it will come up. With the well that they put down up through the steel casing that they put in, some of it is also going to go up between the steel casing and the rock. Once it goes up through there it will go out through any fissures or cracks. That is what I have learnt from research.

The Hon. RICK COLLESS: If what you say is correct—and I accept your evidence—there is no way that they could guarantee that any aquifer is going to be sealed.

Mr DRAPER: From what I have seen it is absolutely impossible. Once they go through the holes, fissures and voids in the ground there is just no way of stopping the gas from migrating.

The Hon. RICK COLLESS: If we look away from the coal seam gas drilling business and at the water drilling business, in particular further west in the Great Artesian Basin where some of the wells are two or three kilometres deep, they would have had the same problem, would they not, in casing different aquifers at different levels?

Mr DRAPER: I assume they would. The problem would be a lot bigger here with thousands of wells 700 metres apart so I guess it would be a similar problem but a whole lot worse.

The Hon. RICK COLLESS: A whole lot worse because there are more wells, yes, but as you probably appreciate the Great Artesian Basin has been drilled for over a hundred years and there have been reports of gas escaping from Great Artesian Basin wells and other water wells. I am just wondering whether, if what you are saying is correct, the same thing applies to the water industry. It would be of particular concern to the water industry because they deliberately drill through salty aquifers and down into deeper fresh water aquifers to access the better quality water. If there was interconnectivity between those aquifers all the waters in those aquifers would be polluted by the saline water above and below them.

Mr DRAPER: I would need to research that as well.

The Hon. RICK COLLESS: You have raised a good point. I am glad you did so.

Mr DRAPER: This is about all I can do. This is completely on top of me; it is taking up all my time and taking up the time of all my friends. I have spent the day here when I should be home working and my

friends should all be working. I guess as we find out different things the next thing I will be doing is finding out how water is drilled.

The Hon. PETER PRIMROSE: In relation to the specific examples of the overflowing sites, can you give us the locations now or after the Committee hearing so we can ask some questions about it?

CHAIR: You can provide that information to us in any manner you wish. It is still covered by parliamentary privilege.

The Hon. JEREMY BUCKINGHAM: I understand you have a video of it that you have taken today.

Mr DRAPER: Yes.

CHAIR: The Committee will deliberate as to whether we can accept that evidence. If we can, are you happy to provide it to us?

Mr DRAPER: Yes.

CHAIR: Thank you very much.

The Hon. SCOT MacDONALD: If people are sick or unwell for whatever reason please encourage them to talk to the Department of Health. Unless you get these things on the record and unless you get a response and get the Government involved we will be just chasing our tail for quite a time.

CHAIR: Mr Draper, do you want to make any concluding remarks?

Mr DRAPER: I would like to point out that none of the people that live right next to the wells were invited to speak at the inquiry. I would encourage you to contact Stuart Godwin, who has put in a submission. He would be willing to talk and he has gas wells on his property.

CHAIR: Do you know any other people who might be prepared to talk to us?

Mr DRAPER: A lady called Linda Brookes.

CHAIR: Do you know whether she has made a submission to us?

Mr DRAPER: She has made a submission.

CHAIR: We will have the contact details. Thank you for giving evidence, Mr Draper, and for taking the time out of your busy day to come here. It is obvious that this matter is pretty sensitive. I thank you all for taking the time to come and give evidence. If anyone who put in a submission has heard things said today that they wish to contest you are welcome to put in a supplementary submission and we will take that into account. Each of the submissions is vetted to make sure there is nothing we cannot publish on the website. All of the evidence given today will be on the website in two or three days. We appreciate the opportunity to come to this part of the world to talk to the people who are most affected by these sorts of industries.

(The witness withdrew)

(The Committee adjourned at 6.20 p.m.)