

**REPORT OF PROCEEDINGS BEFORE**

**GENERAL PURPOSE STANDING COMMITTEE No. 5**

**INQUIRY INTO COAL SEAM GAS**

**CORRECTED PROOF**

---

**At Mittagong on Friday 9 December 2011**

---

**The Committee met at 10.00 a.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:** Welcome to the sixth public hearing of the inquiry which is examining the environmental, economic and social impacts of coal seam gas applicable to New South Wales. Before I proceed I would like to acknowledge the Dharawal people, who are the traditional custodians of this land. I would also like to pay respects to the elders, past and present, of the Dharawal nation and extend that respect to other Aborigines present.

Today we will hear from a number of stakeholders including the Country Women's Association, Rivers SOS and the Carmelite Nuns, as well as the Southern Highlands Coal Action Group and Scenic Hills Association. We will also take evidence from several local councils. Following today's hearing the Committee will hold a final hearing at Parliament House on Monday. The details of the hearing are on the Committee website. Before we commence I would like to make some brief comments about the procedure for the hearing.

Firstly, copies of the Committee's broadcasting guidelines are available from the Committee staff. Under these guidelines members of the media may film or record Committee members and witnesses. People in the gallery should not be the primary focus of any filming or photographs. I also remind media representatives that you must take responsibility for what you publish about the Committee's proceedings. It is important to remember that parliamentary privilege does not apply to what witnesses say outside of their evidence in the hearing. Therefore, I urge witnesses to be careful about any comments they make to the media or others after they have completed their evidence or before they give evidence. Their comments will not be protected by parliamentary privilege if another person decides to take action for defamation.

Committee hearings are not intended to provide a forum for people to make adverse reflections on other persons. The protection afforded to witnesses under parliamentary privilege should not be used during these hearings. I therefore request that witnesses focus on the issues raised by the inquiry's terms of reference and avoid naming individuals. We are aware that people hold strong views about coal seam gas development. There is a great deal of interest in the issues being examined by the Committee, as shown by the more than 1,000 submissions and letters that we have received.

The primary purpose of this hearing is to give individual witnesses an opportunity to give their evidence before the committee. Although this is a public hearing it is not an open forum for comments from the floor. Only questions from the Committee and the evidence of witnesses are recorded in the transcript. Audience interruptions are not recorded and may make it more difficult for witnesses to fully and freely express their views. Witnesses are advised that any documents they wish to table should be provided to members through the Committee staff. A full transcript of today's hearing will be prepared by our Hansard reporters and the transcript will be available on the Committee's website in the next few days.

**HEATHER JOY BEAMES**, Country Women's Association of New South Wales, and

**ELAINE FRANCES ARMSTRONG**, State President, Country Women's Association of New South Wales, sworn and examined:

**CHAIR:** Before we proceed would either or both of you like to make a brief opening statement?

**Mrs ARMSTRONG:** I would like to make an opening statement. But before I do could I just comment that it is a shame there are no ladies represented in your inquiry. At our annual conference in May this year members of the Country Women's Association of New South Wales passed the following resolution:

That the CWA of NSW approaches the relevant Ministers, objecting to any adverse environmental and social impact resulting from coal seam gas activities and infrastructure, including the impact on property rights and just terms compensation.

The most significant concerns of our members relating to the coal seam gas industry in NSW are as follows:

***Ground water***

- At present there is insufficient information available in NSW to determine what impact the exploration and extraction methods of energy companies (including hydraulic fracturing 'fracing') will have on ground water. Based on Queensland experiences, in some areas there have been significant impacts, which are impinging on the ability of graziers and farmers to continue their operations. These impacts include:
  - o Reduction in water levels in bores. In some instances up to 5m, with expected drawdown of 85m (Golder Report)
  - o Contamination of water with drilling & fracing fluids
  - o Contamination of water with coal seam gas
  - o Reduction in the underlying water tables, of the Great Artesian Basin and the Murray-Darling Basin
- Clearly, the coal seam gas industry needs to slow down and let the science prove their assertions that coal seam gas extraction will cause no adverse affects on the environment.

***Land access agreements***

There are significant concerns regarding land access agreements, for example:

- Blanket access for the life of the exploration license, which would allow explorers access during any extensions of licenses as well. This also allows explorers permission to conduct Test Pilot Production wells, which are the precursor to production fields
- Lack of just terms compensation to the landholder. Currently, a landholder may be "compensated" between \$500 - \$5000 for an exploration core hole (as a once off payment), yet the energy companies will make a minimum of \$1 million per production well per year. Compensation needs to also take into consideration the amount of time and effort that landholders need to commit to negotiating and managing the industrial infrastructure that is on their property, which comes with energy projects.

***Gas leaks***

- There have been leaks of coal seam gas into the atmosphere and into drinking water surrounding many wells in Queensland
- During the past month, a well in Casino NSW has been registered as leaking gas.

***Above ground footprint***

- Based on the Queensland experience, energy companies traditionally build wells every 500m – 1000m apart, with each well connected by gas and water pipelines and all weather roads. Depending on the pressure of the gas, field compressor stations are also built every 20 – 30 wells. A significant compressor station will then be established, which is significant infrastructure
- Whilst graziers have been able to continue to operate with some modifications to their business practices, it is unworkable for broad acre farmers to be able to continue to operate in this environment
- There is associated disruption and uncertainty to landholders farming and lifestyle with many contractors and subcontractors having access to their properties.

***Lack of meaningful community consultation***

In the Gunnedah Basin, community members have experienced a significant amount of disrespect in terms of consultation. These experiences have been shared around the state and in Queensland. For example:

- Eastern Star Gas (ESG) representatives arrived unannounced on a Saturday to discuss putting a pipeline through landholder properties. ESG have yet to hold a public community meeting, despite numerous promises to do so during the last 9 months
- Santos has held numerous community meetings, however these have not been community consultations merely company public relations.

***Pipelines***

Energy companies need to remove coal seam gas to electricity stations or to export facilities. There are significant concerns about the location of pipelines (e.g. ESG's proposal for a pipeline from Narrabri to Wellington via Mullaley and the black soil plains), and about the method that the pipelines are being installed, particularly on sensitive areas such as black soil plains.

The CWA of NSW is aware that the Strategic Land Use Policy has imposed a moratorium on new exploration licences for 60 days, but trusts that the concerns of its members will be noted and that future planning will ensure that these issues are taken into account.

**The Hon. Dr PETER PHELPS:** As you are probably aware, there is no right of refusal for farmers and they cannot say no to exploratory work on their property. Is the Country Women's Association's view that there should be, for want of a better word, a veto over the ability for exploration to take place on properties?

**Mrs BEAMES:** If I may answer that, I think it is very hard for us to answer that question as such in that we have over 10,000 members across the State and some of them have family involved in the mining and they are hoping that their sons or husband or whatever may get a job, but then we have the others on the other side of the coin that definitely do not want it. So I am not sure we have a policy on that you might say.

**The Hon. Dr PETER PHELPS:** I am just trying to get my head around the position of the Country Women's Association. The CWA's central position is that you are not opposed to it as a principle but you would like some sort of assurance, some sort of certainty that there will not be, if you like, flow-on effects from the effects of the drilling itself, which leads to my next question and that is what level of assurance would you require for that? Again we face this problem of people coming to us saying, "We want assurance", and we say, "Okay, we will get the government officials to look into it", and they say, "Oh no, you cannot have government officials because the Government has a pecuniary interest in getting a desired outcome", and we say, "We have got company reports" and they say, "No, you cannot because they have got a pecuniary interest". Who do you see would be able to give your members a level of assurance or otherwise that coal seam gas activities would not have negative consequences?

**Mrs ARMSTRONG:** Our members are concerned that they are losing good agricultural land because the Government wants to put in these mines. They are also concerned about the chemical and the salt that is going to come. If they can have independent scientific research and time for this scientific research to be done to guarantee that there is not the contamination of their farming land and that their rights are protected as such in due compensation, whatever; that they are given the respect of having people come and ask for permission to come onto their farm. I have heard that just an advert in the paper is sufficient for them to come onto your land, but in our opinion that is not good enough. In our opinion that is not good enough. They would also like some insurance by way of a fund so that whoever does the damage provides. I will ask Mrs Beames if she would like to add anything.

**Mrs BEAMES:** Not to that question, no.

**The Hon. RICK COLLESS:** Following on from that, if as a result of this inquiry we are able to say unequivocally that there will be no damage to our water sources, be it underground, surface or estuarine water, or to agricultural land and the social fabric of regional communities, would you feel comfortable with coal seam gas mining proceeding?

**Mrs ARMSTRONG:** Unequivocally? It would be up to our members to express their concerns, which we are putting to the Committee now. You are talking about unequivocal proof that the artesian basin will not be harmed. I believe that only 7 per cent of the land in Australia is arable. If we are going to lose the land to mining at the rate that we are seeing at Werris Creek and Gunnedah, that is a great concern. We have members who are from farming families. At the moment Australian farmers are producing enough food to feed 60 people each. In the years to come that pressure will be greater if the population expands as we expect it to.

**The Hon. RICK COLLESS:** One of the concerns in agricultural areas and across the board is the grid pattern of the wells. It varies between 400 metres and 1,000 metres. The companies that are involved in this business have all told us that they are now looking at doing a lateral drilling from each wellhead so that they can extract the gas out of a five-kilometre grid pattern instead of a less than one kilometre pattern.

**Mrs ARMSTRONG:** That still concerns us in that the water that they use would still have to be brought to the surface from a greater area. There would still be the salt and chemical contamination.

**The Hon. RICK COLLESS:** Sure.

**Mrs ARMSTRONG:** The treatment of that is very expensive and it is taking water that farmers need for their bores and wells.

**The Hon. JEREMY BUCKINGHAM:** I am very pleased that you are here to give evidence today. It is great to hear from the Country Women's Association. My question relates to a major issue in country towns; that is, mental health. What is your view of the impact this is having? What have your members said about the impact on mental health? Is this exacerbating mental health issues in the communities that you represent?

**Mrs BEAMES:** Yes, it is having a huge impact. I attended an Australian Pipeline Industry Association coal seam gas water forum in Brisbane in June. I asked a question of the AgForce Queensland people after their presentation. They said that 95 per cent of the farmers in that area were having mental health problems. It really was affecting them. I am a farmer and I am married to a farmer. We have a gas pipeline running through our property and the personal impacts are huge. My husband stresses about that pipeline constantly. We have had ongoing dramas with the pipeline and the people who put it there and continue to monitor it. Mental health really is a major problem.

**The Hon. JEREMY BUCKINGHAM:** That was 95 per cent of people.

**Mrs BEAMES:** Yes.

**The Hon. JEREMY BUCKINGHAM:** And AgForce is the Queensland equivalent of New South Wales Farmers?

**Mrs BEAMES:** Yes.

**The Hon. JEREMY BUCKINGHAM:** That is what they said about areas with coal seam gas mining? That is what they told you?

**Mrs BEAMES:** That is what they told me when I asked them.

**The Hon. JEREMY BUCKINGHAM:** You said that you have a pipeline on your property.

**Mrs BEAMES:** Yes.

**The Hon. JEREMY BUCKINGHAM:** But that is not associated with coal seam gas.

**Mrs BEAMES:** The central ranges gas pipeline that runs from Dubbo to Tamworth runs through our property.

**The Hon. JEREMY BUCKINGHAM:** And there has been a lot of stress involved in the management of that?

**Mrs BEAMES:** Yes.

**The Hon. JEREMY BUCKINGHAM:** What is your view about the way these agreements are negotiated? Is there a lot of pressure on farmers, landholders and families to sign them because they feel that ultimately they will have to come to some agreement and the company has a right of veto? Is that the view expressed to you?

**Mrs BEAMES:** Yes. Once again, personally that is what happened to us. Farmers are becoming a lot more savvy about it now and they are asking more questions. In our case, they turned up on a Saturday morning and said that they wanted to talk to us about it. They told us that we needed to sign it. We were told that if we chose not to sign it they could take us to court because in the end they have all the rights. It is a standard thing. They say that they have only so much money and this is what we will be paid and that is it.

We were railroaded into signing and found out several months later when we purchased part of a neighbour's property that the pipeline ran through that they received more than twice as much money as we received and the distance the pipeline travelled through their property was less than one-tenth. That is because they would not sign up initially like we were silly enough to do. They just kept complaining. As I said, farmers are getting better at it now because there has been a lot more publicity, but that is my personal experience.

**The Hon. JEREMY BUCKINGHAM:** Was the likelihood—I will not say threat—of incurring the costs associated with going to arbitration and court a consideration? Did it make it more likely that you would

sign up because you thought there was a huge cost involved and that the process of going to court would be difficult?

**Mrs BEAMES:** That is exactly right. We were told we would not win anyway because they had the rights. Why would we put ourselves through the court process? So we just signed.

**The Hon. GREG DONNELLY:** Thank you for appearing today. There are five general purpose standing committees of the New South Wales Parliament and I can assure you that women are well represented on those committees.

**Mrs ARMSTRONG:** Is there one with five female members?

**The Hon. GREG DONNELLY:** No. This particular committee does have male members, but I do not want you to think that that is representative of the women on committees in the New South Wales Parliament. I assure you they are well represented on general purpose standing committees and other committees. I wanted to make that clear so you did not leave with the wrong idea. If this industry develops, there could be a scenario in which a property owner wants to enter into an agreement with a coal seam gas mining company and feels happy with the arrangements entered into with the company involved. However, there may be an adjoining property owner who is offered an arrangement but who chooses not to accept it. That is, there could be some neighbouring property owners who chose to enter into agreements and some who do not. The Country Women's Association has many years of experience and it has members who are farmers who have interests that are different from their neighbour's interests. Does that potentially cause issues? If it does, how are they addressed? Surely there have been examples in the past where property owners decide to do something in their interests that creates a degree of tension. How is that addressed in the context of your experience with farmers over a long time?

**Mrs ARMSTRONG:** I will comment first about farmers generally. They are the keepers of the land and most farmers work to get the best out of it, and in the process they look after it well. They plant trees, they are very environmentally conscious, they protect animals and things like that. I have retired from a wheat/sheep/cattle property in Wagga and have moved to town. On our farm we lived next door to an orchardist and we had differing interests. We sometimes asked for the rain to fall on their side of the fence and sometimes on our side of the fence.

Even so, generally farmers are working together in the best interests of the land. They are the keepers of the land. If you do not look after your land it will not produce for you. It is in your best interests to look after it. It is the concerns of those people that we are presenting today; that is, their concerns about salt, contamination, loss of water and loss of good agricultural land. They are the things that unite farmers even though some sign and some do not. They still want the best even for the ones who do sign. They still want the best for their land and the farming community and the want to be able to provide food.

**The Hon. GREG DONNELLY:** Mrs Beames, you provided an example about the pipeline. I will be the devil's advocate and ask: If that pipeline was transporting fresh drinking water to two major towns, would that be an issue for you?

**Mrs BEAMES:** Yes.

**The Hon. GREG DONNELLY:** So it is the pipeline itself?

**Mrs BEAMES:** It is the pipeline itself that is the problem.

**The Hon. GREG DONNELLY:** I am not familiar with your example. What are the problems?

**Mrs BEAMES:** The pipeline cut our property in half. It took quite some time to put it through because there was rain and different other things happened. We have three internal access roads and at one stage they had two totally blocked. Although it rained, we were still in a drought and we were hand feeding stock every second day.

**The Hon. GREG DONNELLY:** When did this happen? How long ago are we talking about?

**Mrs BEAMES:** When they put it in?

**The Hon. GREG DONNELLY:** Yes, roughly.

**Mrs BEAMES:** In 2006.

**The Hon. GREG DONNELLY:** About five years ago?

**Mrs BEAMES:** Yes. To feed the stock here we had to go all the way around there. Instead of that particular job taking two hours, it was an all-day job. That happened several times. We had subsidence and a major erosion problem in December last year, and it was fixed only at the end of October this year.

**The Hon. GREG DONNELLY:** So the pipeline is not buried; it is above ground?

**Mrs BEAMES:** No, it is buried. But they cut through a contour bank that channels a lot of water on our place. Even during the construction phase there was an erosion problem with that contour bank. It cut a massive hole. I have some photographs. The pipe was exposed for five metres. We discovered the problem and rang the hotline number. They did not even know where we were. They asked where we were and what was the nearest town. We live at Dunedoo, so the nearest centre was Dubbo. They gave us a number to ring and the people at Dubbo, who said that we were not in their area and that we should ring Tamworth. We rang Tamworth and they said they had a big problem at Coolah and we were nothing. When I said that the pipeline was exposed they said that they would come tomorrow rather than next week.

The big problem is always access. During construction they were constantly coming in and out. We did not even know they were there. We would go somewhere and find people and ask them what they were doing. They would say they were the surveyors or they were doing this or that. There were very few times that they rang and asked whether it was okay if they came tomorrow. They just turned up.

**The Hon. PETER PRIMROSE:** I will ask one question directly relevant to this. I know that time is limited. If you were approached again today in relation to someone wanting to put a pipeline or anything else on your property and offering you a contact or proposal, who would you ask for support, assistance or advice?

**Mrs BEAMES:** I would take it to my solicitor to check it out; I would contact New South Wales Farmers or someone who may have some other agreements that people have signed; and we would talk to everybody. It was suggested we not talk to anyone because we might be getting a better deal than them; hello, we got the worst deal. We would be talking to everybody we could.

**The Hon. PETER PRIMROSE:** The solicitor would be the local solicitor in Dunedoo?

**Mrs BEAMES:** Dubbo.

**CHAIR:** Thank you for giving us your evidence. Would you table the photographs that you have copies of? Because the time has been short the Committee may have questions they would like to send you on notice: Would that be all right?

**Mrs BEAMES:** Yes.

**CHAIR:** If we could have answers before the end of January.

**Mrs ARMSTRONG:** Our head office closes from 20 December. If you can get them to head office so they can get them to us, because I live in Wagga Wagga and Mrs Beames is in Dunedoo. Would I be able to make a closing statement?

**CHAIR:** Yes.

**Mrs ARMSTRONG:** For the reasons outlined in our submissions we have called upon you to ensure that the environment, health, economic and social implications of coal seam gas activities be investigated. The moratorium we would like to see extended in order that sufficient time is allowed to collect the necessary data to make an informed decision on the future of coal seam gas activities within New South Wales. Could we encourage you to think about a Sydney green belt similar to the one in Brisbane?

**(The witnesses withdrew)**



**CHRISTOPHER PAUL LALOR**, Acting Manager, Strategic Planning, Camden Council,

**JEFFREY KEITH LAWRENCE**, Director Planning and Environment, Campbelltown City Council,

**DAVID MICHAEL HENRY**, Environment Officer, Campbelltown City Council,

**LAURENCE ALEX CARL WHIPPER**, Deputy Mayor, Wingecarribee Shire Council,

**JEFFREY SCOTT LEE**, Director, Environment and Planning, Wingecarribee Shire Council, and

**ALISON NANCY DENCH**, Deputy General Manager, Wollondilly Shire Council, sworn and examined:

**CHAIR:** You are representing a panel of councillors, so you may each care to make opening statements. Keep your opening statements brief and if they are lengthy perhaps they can be tabled so *Hansard* can take a transcript of your opening statements.

**Mr LALOR:** Thank you Mr Chairman. I want to raise a few dots points. There is concern that appears in the gaps of the knowledge of the effects of coal seam gas, especially in the hydraulic fracking process. This has generated a great deal of concern within our local community and there needs to be much more certainty. The consultation process needs improvement, given the current community angst. The difficulty for Camden has been the coal seam gas wells are in designated areas which are future urban release areas. This has resulted in concern for new residents—residents that have not even appeared yet. The next point is that the Department of Infrastructure, Planning and Natural Resources location guidelines are dated May 2004 and they need to be reviewed as a matter of urgency.

Our next point is that there is a need for the Environment Planning Assessment Act and Petroleum (Onshore) Mining Act to be better integrated. They seem to be at odds sometimes. Finally, in most of the cases the Minister has been the approval authority. We have seen problems arising from the policing of the various consents that have been issued and these relate to the notification of council, the various reporting and monitoring requirements, and additional amendments to consents that have been granted.

**Mr LAWRENCE:** Thank you for providing council with the opportunity to address this Committee. The experience of council in dealing with matters relating to coal seam gas activities has related predominantly to its consideration of project applications and environmental assessments associated with the Camden gas project. As can be gleaned from the council's written submission to the inquiry council has been direct in its objection to the stage 3 Camden gas project. This objection has been based on a deeply held concern by council and the community that there is insufficient detailed independent scientific data and evidence available to reassure council that coal seam gas activities will not damage groundwater resources and give rise to potentially harmful environmental impacts. At the same time council would be concerned over the potential for a change to natural and cultural landscape character in sensitive environments that could be brought about by a proliferation of well-head facilities and other infrastructure as coal seam gas activities expand and proliferate across the State but particularly across Campbelltown and south western Sydney.

Since lodging its written submission to the inquiry in September I need to inform the Committee that council has since resolved to request the Premier and relevant Ministers to implement a moratorium on further coal seam gas mining activities until conclusive evidence emerges that the practice does not damage groundwater resources. The nature, scale and extent of risk to natural resources such as water, the environment and to the community more generally, appear to council to be not well or fully understood. This is considered a potentially dangerous shortcoming. Mr Chairman, thank you for enabling me to present the council's submission.

**CHAIR:** Do you have anything Mr Henry?

**Mr HENRY:** No.

**Mr WHIPPER:** I would like to acknowledge the traditional owners of the land we are meeting on today, the Gandangara people, and pay my respects. Council's position is like our fellow councils Campbelltown and Camden. We have significant concerns, particularly in relation to the long term impacts on our environment and most particularly our groundwater reserves. We have seen no conclusive evidence to say that these activities

will not endanger our groundwater reserves. We know the coal seam and groundwater in this area is very close to each other, one sits on top of the other. We are concerned that there will be an impost on our growing tourism industry, particularly our wine industry. We have very productive farming land in the shire that we feel is at risk as well. We called upon the Local Government Association conference to support a recommendation which was supported unanimously, that is, that all activity be prohibited until there is conclusive and undeniable evidence that these activities will not have any impact on ground and surface waters. Our shire forms an integral part of the Sydney catchment basin and provides resource water to Sydney as well. We are concerned that coal seam gas activities will have a long term impact on future generations. Our position is one of precaution.

**CHAIR:** Mr Lee, do you have anything to add to Councillor Whipper's comments?

**Mr LEE:** If I may. I support the previous speakers. I will make two points in relation to strategic planning. The council here has embraced the integrated planning and reporting framework which is a requirement now for local government by the State. We have produced our Wingecarribee 2031 Community Strategic Plan and that deserves some recognition. The New South Wales Government is committing to strategic regional land use policies and we support that move and we believe that should come first in this process rather than second. As Councillor Whipper has just said, certainly at this point in time the precautionary principle is something that should be adhered to.

**Ms DENCH:** Good morning and thank you for the opportunity to present to the hearing. It is very much a privilege to be able to do so. We believe that local government, all councils, are exceptional stakeholders and should have some say in regard to coal seam gas exploration and the impact upon our communities. In Wollondilly shire we have 2,500 square kilometres and 76 wells. We are a clearing house for our communities views and we are also the holders of the local knowledge for our community. That is one reason we believe we are an exceptional stakeholder. There are great concerns within our community and they want answers and it is council's role to advocate and find the answers. Wollondilly Shire Council is committed to working closely with the community, engaging with them and seeking their views on mining. The industry has been a major contributor to our particular area in regards to economic and social well-being for our community. It is a big concern.

We believe that engagement is a process, it is not an event. And it is something that mining companies see as particular events. We believe there needs to be ongoing dialogue by companies who are doing mining with our communities. We need to be involved because it is a major role of local government to consult with the communities. Council's experience of the magnitude and complexity of engagement processes with the communities by the majority of mining industries is often beyond most community's understanding, leading to fragmented and inconsistent interaction. Consultation occurs after a critical works have happened rather than at the exploratory stage: That is when it needs to happen. Often community perception is that there seems to be—with approvals—a done deal. Council has other issues we would like to raise in regard to being taken seriously in the development of consent conditions for the approval of processes at the exploratory stage of coal seam gas initiatives. Often our well considered and locally accurate advice is ignored in regards to development of conditions of consent.

Council would like to request, if there is capacity for this particular inquiry, to hold a special meeting with council staff and local government staff from affected areas to discuss specific examples and processes. It would be good if we could meet with other agencies that have an approval role with coal seam gas exploration. There is inconsistent community engagement and lack of feedback processes including a lack of plain English understanding about what is actually happening. There is a lack of robust independent research—that is something we would like to stress. The research to date is dependent upon that done by the mining companies. Most research is funded and conducted by the mining industry which we liken to the dog guarding the chops.

We are not clear what the real-life expectations are for coal seam gas initiatives and how this will impact long term upon our communities and the sustainability of our communities. We have issues of subsidence in our particular area from coalmining. There is uncertainty and certainly no clear understanding of whether there would be subsidence issues in relation to coal seam gas exploration as well. We have concerns about chemicals that are used in the whole process. We also have concerns in regard to a lot of harmful chemicals that have had an impact on the development of Parkinson's disease over the years. We have had some evidence given to council in regard to studies on how Parkinson's disease has increased because of exposure to particularly common chemical solvents, and we see that as a particular issue for the health and wellbeing of our communities.

We also have concerns as council about the financial contributions to independent research. We believe there need to be more contributions and more given back from the mining industries to our communities. For example, by comparison, the proposed contributions for coalmining are equivalent to less than 0.0003 per cent of the predicted sale value of coal from the project. That is less than three-tenths of one million. Council would like to ensure that any coal seam gas project makes adequate provision to look after the staff that they engage, both employees and contractors, and that at any one time that job losses occur that we request as part of any coal seam gas project that there is a commitment to set aside at least \$30,000, we believe, per employee for retraining, compensation and re-employment assistance at any time that a job is no longer available on the project.

We also believe there needs to be a strategy developed where a 25 per cent share of annual mining and petroleum royalties goes to local government and regional communities or projects. This model has the potential to ensure regional communities that accommodate coal seam gas initiatives and support the mining industry are compensated for the resources and financial benefits in the form of royalties that are currently being taken from the local area and not being returned in a way that is equitable. We understand that there is a Federal amendment to the Environment Protection and Biodiversity Conservation Act. We would like to make sure that the Federal and State legislation is in sync with each other and that the governments are talking to each other. We also believe that legislation in New South Wales should be enacted to ensure that one Minister will have the responsibility for monitoring mining operations involving coal seam gas within the State.

We are advocating for rigorous regulations that have no loopholes. We are concerned that mining companies may take advantage of these loopholes and reshape or restructure their businesses and activities to fit within these particular loopholes. We would therefore like to advocate for legislation at both Federal and State levels that is in sync with each other. We also raise concern, as I said, about independent scientific evidence that is required to understand the relationship between surface and groundwater and therefore we believe the precautionary principle should be enshrined.

Our council has also passed a resolution to impose an immediate moratorium upon all further coal seam gas development until it can be demonstrated that the industry will not have any unacceptable social or environmental impacts. Thank you very much for listening to council today. As I say, we believe local government is an exceptional stakeholder and should be listened to because we do advocate on behalf of our communities. On behalf of our community we thank you for listening.

**CHAIR:** Ms Dench, would you be prepared to table your opening statement?

**Ms DENCH:** Yes.

**CHAIR:** I was so busy swearing you all I neglected to notice that one of our parliamentary colleagues is in the gallery—the member for Goulburn, Ms Goward. We will open to questions.

**The Hon. GREG DONNELLY:** In terms of who answers the question, none or all can answer as you see fit. My first question deals particularly with the point made by Ms Dench about the matters associated with community consultation or lack thereof in regard to this issue. Do you have a particular view about the type of consultation process model that you think should be looked at as far as the way in which these matters are presented to and engaged with local communities? Is there a particular model that you would like to put forward? I am not being presumptuous that we are assuming it will go ahead but if there is going to be coal seam gas mining in this State is there a particular model you would advance as being a good model for us to look at?

**Ms DENCH:** Community engagement has a variety of different types of methods and modes in which that information needs to be shared and disseminated. As I said, it is not an event; community engagement is a process and it also needs to be delivered in different forms: electronically over the web—not everybody within our shire has access to the web; a lot of our residents still have dial-up and they certainly do not have broadband access, so often the web is not the most appropriate place but it seems to be nowadays the only place where a lot of information seems to be placed; and there needs to be more interaction on a ground level—kiosks, information sessions, one-on-one sessions. I am talking about setting up appropriate timing of engagements. We have residents who travel significant miles for employment and often engagement processes are held at six o'clock when everyone is trying to get their kids to bed or have something to eat, or during the middle of the day when everyone is at work. You need a variety of methods. We have developed a community engagement

framework in Wollondilly which works very well with our residents. We have developed asset maps which identify—

**The Hon. GREG DONNELLY:** Is that specifically in regard to a particular map or is this a model you use across issues that arise in your local government area where you need to engage the community?

**Ms DENCH:** Across a variety of issues. We have developed community forums; we developed discussion papers we put out there in the community for people to have a good clear understanding of what is going on; we put it in written form as well as in pictorial form; we have sessions where it is at different times of the day—often on the weekend as well so people can participate; we also try and engage our young people, particularly through our youth advisory committee; we have advisory groups of council, which represent different sectors in our community that we speak to; as I said, we developed assets maps where we have asked the community how would they like to consult on it—rather than consultation being determined on how it should happen, we ask the community what fits best with them.

It may well be the general store or the BP service station where fliers need to be placed or somebody can be there during the day. We have got Jeff up at our petrol station; he has over 150 people who come through during the week and he is our town crier. We go and have a talk to him and disseminate information verbally. That is one way—by mouth—for a lot of community engagement.

**The Hon. GREG DONNELLY:** Perhaps I could ask this question which follows that up. In terms of a process to ensure thoroughness with respect to community consultation would it be the view amongst the councils represented here that perhaps coming out of this inquiry—and we have not deliberated yet—there should be consideration of a recommendation that there be a standardised model for community consultation? Obviously each shire and council has its own way of going about doing this—not everyone is going to be the same—but, if I pick up the threads of your argument, it has got to be thorough and detailed and comprehensive?

**Ms DENCH:** That is correct, and also plain English, because a lot of the actual consultations happening with the mining companies they throw out so much technical jargon and information to you that at the end of the day people do not want to give input because they do not want to feel incompetent because of what is thrown at them.

**Mr WHIPPER:** Could I say as well that in relation to consultation, each shire, particularly in a remote area such as ours, communication is very hard to get across, and in spite of everybody's best efforts there will always be somebody who says they were not consulted. I think the model needs to begin with government talking to local councils and including them. We feel, I suppose, kneecapped in a lot of ways in relation to part 3A. These are significant projects we are talking about; they will have untold impacts on our lifestyle and on the social and economic fabric of our shire environmentally as well. So I believe the model for communication should start at the top in terms of involving local government right from the very beginning and then, with that, local government putting a model in place that might be specific to that local government area. I think that might be a good way to start.

**Mr LAWRENCE:** On behalf of our council I suggest that we would be supportive of a mandated approach because I think it brings greater certainty to the whole equation of consultation. If I could also draw the Committee's attention to one example that we are currently dealing with with a modification application to the stage two Camden gas project. We learnt about a new well to be located on the Menangle Park Trotting Club. We have made a submission to that within the short period of time that we were allowed to by the department, but upon inquiry to the department whether they are telling the community about this particular application for modification to build another well we have been disappointingly told that no it is not proceeding to public exhibition.

So I think what we are concerned about is that sometimes through statutory planning and consultation processes opportunities are missed for the public or the general community to have an involvement in perhaps contributing to the determination of an application about a gas extraction facility, which in the current climate we think would be really disappointing. But that is the actual case and we have advocated to the Department of Planning and Infrastructure for that application to be publicly exhibited. I think it is important to bring greater certainty to that whole approach and to certainly mandate a consultation mechanism, and I agree with Councillor Whipper, first with local government and then work with local government to work out what is the best approach for that particular community. I think that is the way to go.

**Mr LEE:** The point I would make is that successful engagement is about when participants understand what level it is at. Are we informing people? Are we consulting them? Are we looking to empower them? Are we collaborating with them? It seems to me that at this point in time we are having discussions or an engagement about proposals rather than having a discussion informing people about the issues. I think that is where some of the anxiety, certainly at a community level, comes about and that is why in our opening remarks some of us made comments about community strategic planning, strategic land-use planning, those sorts of things. I agree with the other speakers here that some sort of model for engagement is essential, but the real issue is at what level that engagement is. I think we have got ahead of ourselves a little bit.

**The Hon. GREG DONNELLY:** Point taken. Do you believe that with respect to this industry if it is to proceed it needs a specific piece of State legislation to ensure it can proceed in a way which is acceptable to communities across the State? As you probably know, there are multiple pieces of legislation that cut across this—there are environmental matters such as water, then there are matters to do with mining and onshore petroleum; there is a whole lot of legislation that is associated with this. Do you think that a single piece of legislation which essentially becomes a cornerstone of this industry is what is required if this is to proceed in a rational way?

**Mr WHIPPER:** Could I just start by saying that we do not think it should proceed until there is clear evidence that it is not going to impact on agricultural land, and groundwater in particular. That is the first premise. If it were to proceed then I think I agree one piece of legislation would be good. But all the legislation in the world does not work unless there is compliance and there is regulation and there is policing of those conditions, and not only in council but as a member of the board of the Sydney Catchment Authority as well we see continually where decisions that are made or conditions that are recommended by council or other agencies are put in place, the Department of Planning might override those; they might include some conditions but my experience is that there are very few people on the ground policing those conditions. So I am little bit sceptical about legislation. I think a lot of what we are talking about now comes after the event. I think something should be assured and there should be a sense of confidence within local government and the community that there are not going to be any social, environmental or economic impacts before any of this activity takes place.

**The Hon. GREG DONNELLY:** The issue of compliance has been raised at a number of community forums and hearings. Can you give the Committee an example of successful compliance in respect of an important matter or issue in your local government area? There have been plenty of complaints about the system not working and people have said that projects are just set up and allowed to run. Are there any models of compliance which are robust and rigorous and which you believe the Committee should examine?

**Mr WHIPPER:** We have a community reference panel that deals with these mining issues. Council has made some very strong recommendations. We do not support any activity that threatens our environment until the science is presented. A panel made up of community representatives and stakeholders might be appropriate. Again, that would have to be very transparent and accountable and the members should not be handpicked by the government or the mining companies. It would have to be seen as very much at arm's length.

**CHAIR:** Do any of the other councils have similar reference panels?

**Mr LALOR:** No.

**Mr LAWRENCE:** No.

**Mr WHIPPER:** No.

**Ms DENCH:** No.

**The Hon. JEREMY BUCKINGHAM:** I congratulate you on the quality of your submissions. There should be a recognition of the strategic planning that local government does in terms of community planning; that is very important. It is where the rubber hits it road when dealing with issues in our community. Local government often does the really serious planning and delivers for the community.

**CHAIR:** Thank you, councillor.

**The Hon. JEREMY BUCKINGHAM:** I am also a councillor—at least for a little while, despite what Barry says. Your submissions are all excellent. I refer in particular to the submission from Campbelltown City

Council, which is a high-quality document. It also reflects that you have been dealing with the Camden gas project. I would like to discuss two issues. I am interested in how your attitudes as a community and as a council have developed over the life of the project. Has there been a change in attitude since its inception more than a decade ago? What has been your experience with regard to the community's attitude and what has been your attitude as the local government participating in that project?

**Mr LAWRENCE:** I preface my remarks by saying that I have been at the council since about 2005, so I cannot comment on anything prior to that. In the time since I have been involved, the council's understanding of the coal seam gas issue has matured and become more sophisticated in line with the Australian community's understanding. Importantly, as time has gone by, we have seen the wellheads being constructed and the gantries going up beside the freeway. We have seen the physical presence of infrastructure. When we thought about coal seam gas mining originally we thought it was something that happened underground; it is not in your face. Over the past few years as the wells have been constructed, the gantries brought in, the pipes laid out on the surface and wellhead sites cleared, it has become more visually obvious to the community as we drive past.

We also understand that there have been some incidents on the Camden gas field. Those incidents have had a visual impact with water and other liquid and foam spraying through the air. There is an obvious visual presence that is very tangible to the community. You layer that with the successive project applications for stages two and three and the recent modification on the Menangle Park Trotting Club site. The council is most definitely experiencing concern about proliferation. It was not really understood in the early days how much this would grow. We now have detailed experience with the stage three project application and the lack of detailed scientific information provided. We need better information to better understand the potential impacts. That has created concern for the council that might not have been there originally.

**The Hon. JEREMY BUCKINGHAM:** That leads into my next question. In your submission you outline concerns that were expressed by council about the exploration application for stage three. You believed there was a non-compliance with the director-general's requirements and council actually sought the services of an independent groundwater expert. It was suggested that that report was attached to the submission, but it does not appear to have been, unless I have misunderstood. Can you table that document?

**CHAIR:** It can be tabled.

**The Hon. JEREMY BUCKINGHAM:** For the benefit of the Committee, and for me, can you elaborate on those issues? What are the gaps in your knowledge and what is council's view about the fact that the project is proceeding despite those gaps?

**Mr LAWRENCE:** I will ask David Henry, the scientific officer, to provide the details of the research. The council is very disturbed because that lack of information means we cannot understand the potential impact. If we do not have that understanding, there is no certainty about what will happen to the land, our groundwater and its potential use and biodiversity. There is a lack of certainty on which to make a decision.

**Mr HENRY:** The consultant was engaged to provide advice about the adequacy of the groundwater assessments given that it is a specialised field and given the legislative requirement to follow the director general's requirements. A number of these requirements specifically related to groundwater that included detailed baseline data. Of particular concern was the assessment of cumulative impacts on groundwater and surface water. The overall finding of the report was that there was insufficient information to do a peer review of the environmental assessments. It identified a low level of compliance with the baseline data and insufficient information to assess requirements related to cumulative impacts and impacts on groundwater and surface water.

**The Hon. JEREMY BUCKINGHAM:** So the independent expert was assessing the data as provided by the proponent and you were not sourcing your own data?

**Mr HENRY:** No, it was just about the environmental assessment.

**The Hon. JEREMY BUCKINGHAM:** It was just in terms of the data provided in the environmental assessment, which the project lives and dies by. The independent expert's view and the council's view was there was insufficient data to assess cumulative impacts and to establish that there would be no pollution and those types of issues?

**Mr LAWRENCE:** Correct.

**The Hon. JEREMY BUCKINGHAM:** Was that assessment done at council's expense?

**Mr LAWRENCE:** Yes.

**The Hon. JEREMY BUCKINGHAM:** We are visiting Camden later today. What is your view about the level of monitoring and reporting that AGL does in relation to stages one and two? Are you satisfied that there is a high level of scrutiny of the potential impact on the groundwater?

**Mr LAWRENCE:** I would be more satisfied, and I think the council would be more satisfied, if there were an independent regulatory review and sampling undertaken by a government agency, whether it be the Department of Planning compliance officers or people from the New South Wales Office of Water. There needs to be some independent regime that can regularly regulate compliance with the conditions of consent. I have many good friends and colleagues in the Department of Planning and I know how strapped they are in terms of resources in the compliance section. With the proliferation of all of these coal seam gas projects across the State, how can we be reassured as a council, particularly Campbelltown City Council, that compliance with conditions of consent for such complex projects is adequately monitored, reviewed and evaluated? It is certainly beyond the expertise of the councils. I am not sure about the Department of Planning, but we would be more satisfied if monitoring were not based on exception or incident but, rather, on a more regular and programmed approach.

**The Hon. JEREMY BUCKINGHAM:** You suggest that the Committee should have considered the impact on biodiversity. That is a good point. The Cumberland Plain Woodland is recognised as an endangered ecological community and you have identified a number of threatened fauna species in stage two. What is your position on the impact that coal seam gas mining could have and the contribution that it could make to many other development pressures? What is your view on the impact that coal seam gas mining could have on those endangered ecological communities in your area?

**Mr LAWRENCE:** They are potentially significant. We need to distinguish between direct and indirect impacts. When you are clearing a site for wellheads, for example, you sometimes have to clear vegetation and some of it may be critically endangered or it may be in an endangered ecological community. That is the stuff that is in your face and very obvious. However, I am absolutely concerned about that fact that if there are implications for toxic impacts on groundwater, that water often finds its way to surface water systems. If it does, it may not be in the direct locality—it could be kilometres away in the middle of a national park or Dharawal State Conservation Area. What are the implications for biodiversity that might rely upon those natural resources, like water coming out of groundwater into surface water systems? Those implications for biodiversity and environmental resources in those types of areas should be of concern, particularly in light of the fact that we do know the scientific implications of groundwater contamination and transmigration.

**The Hon. SCOT MacDONALD:** I address my question to the Wingecarribee Council's submission at point 4.4.1 and 4.4.2—promote the type of development that would reduce the use of fossil fuel and promote local sources of renewable energy. We have heard extensive evidence that if we are going to move to renewable energy and if we do not want to build more coal-fired power stations we must come on board with a transitional fuel. How do you reconcile a fondness for renewable energy and the desire to move away from fossil fuel and not wanting to entertain a transition fuel?

**Mr WHIPPER:** When I am asked about the choice between oil and gas, I assure people that we could live in a world without gas, but it would be difficult. However, I do not know of a world that can live without water. We must be scientific and practical in our application. There are many other renewable energy resources, and the sun is one. We are not saying that in some instances we could not have coal seam gas mining or whatever. We could perhaps exploit some of that fossil fuel. We are saying that we should completely back away from areas that are critical for agriculture and water supply. It is ridiculous to think that water can be sacrificed for the sake of profit. That is not on our agenda.

We are not rejecting it completely; there may be some areas where it is appropriate. However, again, that must be based on rational science. As I said, all the science I have seen does not assure me that there will not be an impact on groundwater. All the science I have seen to date assures me that there is no doubt that it will have an impact on biodiversity. We do not know the result of fracturing the underground water and the impact on the connectivity of that water. That will definitely have an impact on the biodiversity, on our endangered ecological communities and life in general. We are saying that we should adopt a serious approach and the precautionary principle. We believe that we should be serious about it; it is not a throwaway line. I believe our

politicians should embed it in the statutes because there are good reasons to do so. It is not either/or, it is looking at each case on merit and having the science before we proceed. In this area we know that we are rich in ground water and surface water, there is no doubt, but there has been no baseline study done. There is nothing in place. Unlike Wollondilly and Campbelltown, we have not had this activity in our shire. We are learning from our neighbours and from activity overseas as well. What we are saying is that at the very least there should be a baseline study done so we have the evidence. Near enough is not good enough.

**The Hon. SCOT MacDONALD:** In reference to your earlier comments; you do know there is an aquifer interference regulation being developed and it will be expanded next year. Maybe that might give you some comfort down the track. I think you mentioned impact on agriculture: There is an agricultural impact statement as well.

**Mr WHIPPER:** Could I say on that, we are waiting with bated breath for the strategic land use policy and aquifer interference policy. We are glad that the Government have extended the moratorium on fracking because we were concerned that it was going to be business as usual without these things in place. At least we are taking a breath and the opportunity is there. We will be at the table for that. We believe that local government should be key stakeholders in both those processes.

**The Hon. SCOT MacDONALD:** I think all of you have said you are in favour of the moratorium. In the same breath councils are saying they want a piece of the pie, whether it is infrastructure or whatever. If there is a moratorium I believe you trigger compensation, so would council be prepared to come on board with that?

**Mr WHIPPER:** I do not know where you heard that. We do not want anything until it is proven. The pie is something we will eat much later.

**The Hon. SCOT MacDONALD:** Every submission says they are in favour of the moratorium.

**Mr LEE:** For more independent scientific evidence to be carried out and we will have a look at that evidence. Yes, if it is to go ahead we want a piece of the pie.

**The Hon. SCOT MacDONALD:** You want a piece of the pie but you are not prepared to come on board if the State Government is facing a compensation claim from the mining companies.

**The Hon. GREG DONNELLY:** Is that a question or policy statement?

**CHAIR:** Order! We are here to hear evidence from the witnesses.

**The Hon. RICK COLLESS:** I guess this question is directed to those councils that have these wells in their area at present. What problems have arisen? We have heard stories about the issues surrounding water when it comes to the surface and the potential damage to aquifers, which is a more difficult thing to assess I have to admit. In terms of some of the other issues, what problems have you experienced in your council areas as a result of these developments going forward.

**Mr LAWRENCE:** The most recent incident was the Sugarloaf property, I understand. That was reported to the community consultative committee that has been set up for the Camden stage 3 gas project.

**The Hon. RICK COLLESS:** Can you give us an indication of what that incident was?

**Mr LAWRENCE:** A wellhead that has been in place for four to five years. There was an occasion in the last four or five months—

**Mr HENRY:** In May.

**Mr LAWRENCE:** They were cleaning the wellhead and there was an escape of some fluid, aerated fluid or foam I think it might have been, which was part of that process, and it was spraying visually into the atmosphere. We understand at the end of the day that the Office of Environment and Heritage did investigate the matter. It was found that there was no significant environmental harm or damage done. The issue was that it did raise concern. We understood if this visual event occurred in an urban area there could have been community and social concerns. That was an issue for them. We were reassured by AGL at the community consultative committee that there was no significant environmental harm, there was no chemical spillage on to the pastures



where it sprayed over and within a short period of time they fixed the situation up but there was not any particular need for remediation per say or any significant remediation. That is the only obvious incident I am aware of other than there might have been an explosion event.

**Mr HENRY:** There have been a couple of noise complaints.

**Mr LAWRENCE:** It will take a long period of time, we would suggest, verifying any impacts on ground water and surface water systems. By its nature the water takes a long time to move through those systems. We are not aware of any directly accountable impacts back to coal seam gas mining at this time.

**Ms DENCH:** A lot of impact and concerns is the uncertainty in our communities as to what is happening underground. Previously a lot of the wells have happened in areas where people have not seen it and now they see these wells and they are unsure about what is happening to our environment, the impact upon the environment. It does create angst and uncertainty in the community.

**The Hon. RICK COLLESS:** I am trying to determine where there have been any substantial incidents. I appreciate the uncertainty, we have heard of that right across the State. You are the only area that has a producing gas field in place in New South Wales at this point of time. What I am trying to establish is the fears and the uncertainty that people have expressed, have they manifested themselves in your area as yet?

**Ms DENCH:** No, not that I am aware of.

**The Hon. RICK COLLESS:** One of the submissions we have taken is this issue of the disposal of the groundwater that they pump out of the coal seam to allow the gas to come out. What is happening with that and how is that being managed in your area?

**Ms DENCH:** We have limited information. We had an open day a week and a half ago which was the first time that AGL had an open day and invited people to see what was happening. We were shown the wells and given technical information and data but we certainly were not shown any holding pits or anything of what is happening.

**The Hon. RICK COLLESS:** If those holding ponds were around, the community would know where they are, they would see them would they not?

**Mr LALOR:** They are held in tanks right next to the well. In Camden all our wells are out of sight. They are in the Spring Farm urban release area. All the dealings we have had have been with Landcom, who own large tracts of land. They can move the wells around. They have leeway where they can place the wells. All of the wells located in the Spring Farm urban release area are located in future reserves and those will be taken over by council. We have long term leases with AGL. We own some of the land already and some of the land will come to us. You can go within 20 metres of a house. It has been our understanding that they are like electricity substations, they buzz a bit and there is no problem whatsoever. If you go through the environmental assessment and the stuff we have relied on through the department of planning and all the Government agencies, we have been fairly relaxed with it.

However, there have been so many questions just recently. The whole focus has changed and I have been within the area working since they first started. When they first started in the Cawdor Valley area the big focus was landowners concerned about the flare-up when they first get the gas, sterilising land for future urban potential with the pipe work going through, and the actual dealing with the dirt roads going on to a property to access wells. Very much to do with land tenure and ownership: Some people would let people on and others would not. You have those sorts of things. As far as pollution and groundwater it was never an issue. Over the last couple of years it has been a hot issue. We have not got the backup, the expertise to come up with that information. All the wells are out of sight out of mind. There is nothing untoward happening but we are concerned about the ongoing monitoring.

**The Hon. RICK COLLESS:** Could I explore a comment you made a little while ago: You said the water sits on top of the coal, is that correct?

**Mr WHIPPER:** That is my understanding.

**The Hon. RICK COLLESS:** I was going to ask you are you aware of what separation there is between the aquifer and coal seam?

**Mr WHIPPER:** Very little. It is Hawkesbury sandstone. I believe it is a 150-metre depth.

**The Hon. RICK COLLESS:** The coal seam or the water?

**Mr WHIPPER:** Both, they are close, so they are both in that proximity. Any intrusion into the seams would mean you have to go through groundwater to do that. That is a real concern to us. There are some companies saying they will not be fracking, but from all the evidence I have seen and what I have heard you have to frack to release the gas in some form or other. I am not a scientist, I listen, I have my ear to the ground and this concern is growing. Again we have concerns about water being released from these activities in drinking water catchments. It gets back to an issue of compliance and people regulating and policing that. We do not know what goes on out there, particularly in special areas and sensitive water catchments in the shire.

**The Hon. RICK COLLESS:** Have you ever had access to or been addressed by an industry hydrogeologist or Government hydrogeologist to explain what is happening under the ground in this area.

**Mr WHIPPER:** There have been a number of studies done of the Kangaloon aquifer proposal and one of those was done by the office of water. I have seen reports from the scientists at the Sydney Catchment Authority. I am not a scientist, so do not ask me to repeat what I heard. Very clearly there are concerns there and there are substantial groundwater reserves in this area and the connectivity is obvious so it will have an impact across a large part of the Shire if there is any damage to connectivity in the area.

**The Hon. Dr PETER PHELPS:** Just going down the line, if I can start about Camden and work my way down. As a bit of background: The mayor of Lismore in evidence to us said words to the effect of: I do not care about the science, coal seam gas is not for Lismore. Is the view of your councils one of: We will acquiesce if the science shows it safe or coal seam gas is just not us?

**Mr LALOR:** To be perfectly honest Camden council has not considered that question.

**Mr LAWRENCE:** The science is very important to Campbelltown council, but there other implications for biodiversity, proliferation of well infrastructure and changes to landscape character: they are the issues.

**Mr WHIPPER:** We have to listen to the science.

**The Hon. Dr PETER PHELPS:** That was her view; even if it was proved safe Lismore does not want coal seam gas.

**Mr WHIPPER:** We would not stand on that. We would need conclusive science that without a shadow of doubt there will not be an impact on our groundwater—there are other issues such as social et cetera—and we would reconsider possibly.

**Ms DENCH:** Wollondilly has the same stance. We would want to see the independent scientific evidence that there is no impact on the environment.

**The Hon. Dr PETER PHELPS:** That brings me to the question I asked earlier, which has arisen in previous circumstance and that is: Presumably you do not want that independent science from the companies themselves. Would you have concerns about State Government leading the investigation or would you rather it goes to universities in Australia or foreign universities? Where would you see that scientific peer review coming from? Some have said: We do not trust the State Government because they have a pecuniary interest in it.

**Mr LALOR:** I do not think the company should do it.

**The Hon. Dr PETER PHELPS:** I will take that as a given from everyone.

**Mr LALOR:** I trust the State Government. I would assume the State Government would engage a suitably qualified person.

**Mr LEE:** I think the key there is some sort of reference or panel who does that. But the point I would make is that it is really a community and strategic planning issue first and a scientific issue second. As I said before, we have not had the proper community and strategic planning exercise to establish a framework for this and the science will be the science. The important thing is that it is done independently and that the people who need to rely on it have confidence in that process. But we have not had the proper community and strategic planning debate.

**The Hon. Dr PETER PHELPS:** Surely the trip-wire is if it is safe or not safe? If it is not safe then everything else follows in its wake. But the trip-wire has to be if it is safe I would have thought.

**Mr WHIPPER:** I know that in the Hunter they have a water advisory group and they have sitting on it the Nature Conservation Council and the Environmental Defender's Office [EDO] as well. I think that the Government needs to be a stakeholder at the table but I certainly do not believe it should be steering that process because I think there would be much more confidence in the community if it were seen to be outside of politics and if it was based on genuine science and not agenda.

**The Hon. Dr PETER PHELPS:** I agree with that, but by the same token the Nature Conservation Council and the Environmental Defender's Office have already expressed strong concerns about this. You do not want to slant a committee one way and you do not want to slant it the other way. Surely you would go to an external reference group if you wanted—

**Ms DENCH:** We would be advocating an independent assessment commission that would be neutral but equally representative of the affected communities, some industry experts and, of course, local government and the independent science community would need to be involved on that. That is what we will be advocating for.

**Mr LAWRENCE:** I think I personally would support an independent assessment panel or commission. At the same time, the Department of Planning or government could engage its university professors or what have you. But I think the absolute lay-down misère that has to happen is that the community has to retain the right to appeal a decision of a commission or of a Minister or of a government or of a council in the Land and Environment Court, and that needs to be tested. Under the old part 3A legislation and what have you that right was taken away from third parties. So to test the validity of the science behind the determination of any project application let it be tested in court. That will surely be the closest you will get to an independent umpire's decision.

**CHAIR:** Unfortunately, we are out of time. I thank all the representatives of local government for taking the time to come today. Thank you very much for your detailed submissions. Detailed submissions making recommendations are what we are after: it makes our job a lot easier.

**(The witnesses withdrew)**

**CAROLINE GRAHAM**, Vice-President, Rivers SOS Alliance, sworn and examined:

**CHAIR:** Before we proceed to questions would you like to make a brief opening statement?

**Ms GRAHAM:** Madeline suggested I say something about my personal involvement. I notice no-one else has done so. I can do it in two minutes. I have six grandchildren, which focuses your mind rather on the issue of intergenerational equity and not leaving them with a trashed-out, clapped-out quarry. On the work front I was a journalist in a former life and then when I took full-time employment I became an academic. I ended as the senior lecturer in politics in the Faculty of Humanities in UTS, which is why I am going to focus a bit more on politics than about science today because although I am trying to follow the science I am certainly not a creditable scientist by any means.

On the political front, my parents were dyed-in-the-wool Liberals and I voted Liberal but, like many of my generation, the Vietnam war turned me leftwards. I think everyone agrees with me—even Robert McNamara, who was in defence in the United States government at the time. I joined many things in the hectic seventies. You are probably all too young to remember the seventies but I was a founding member of the Women's Electoral Lobby in New South Wales and I was involved in all sorts of other causes—one of the environmentally focused ones was the green bans movement, which was very exhilarating, and that was my first brush with environmental politics. I joined the Labor Party. I left my branch after about 20 years because my Picton-Bargo branch rejected my motion not to allow mining under rivers, which was a very moderate motion I thought. The ironic thing is that BHP Billiton a few years later agreed not to mine under rivers in future; so they were ahead of the Labor Party, surprisingly enough. Later on I joined The Greens because The Greens was the only party that wholeheartedly supported—

**CHAIR:** You were going good until then.

**The Hon. Dr PETER PHELPS:** Next stop is Shooters.

**Ms GRAHAM:** Could well be. The Greens were the only party that wholeheartedly supported the issue of protecting rivers and water systems from mine damage. By then BHP Billiton had trashed not only my river where I live, the Lower Cataract, which was completely wrecked by mining going underneath during the nineties, they then went ahead and trashed the Georges River near Appin where the local swimming hole, Marhneys Hole, was wrecked. Then they were going to mine under the Nepean but there were such public protests by then—no protests from the Government or the establishment or the parties, only from locals who organised all sorts of things—that is when BHP came out and said they would not mine under rivers, which was a welcome move.

By then though we realised that this was happening to rivers and water systems all around New South Wales so we formed Rivers SOS Alliance. It started with 13 groups and it has now got 47 groups in the network and we have regional meetings around New South Wales. We are confined just to protecting river systems, aquifers, water resources of all kinds, from mine damage and now, of course, from coal seam gas extraction damage, which Professor Pells, who is a groundwater expert and geologist, said the other day at a meeting that he thinks coal seam gas extraction is a worse problem for groundwater and water systems in the State than even longwall mining.

**The Hon. RICK COLLESS:** Who said that?

**Ms GRAHAM:** Professor Philip Pells, who is a geologist. He has just done a year-long study of Thirlmere Lakes to do with coalmining, so it is not really on the coal seam gas issue. But it was surprising to hear him say that coal seam gas extraction was a worse problem for the rivers. We make no apologies in Rivers SOS for confining ourselves to asking for the protection of rivers and water resources with a buffer zone around them, because although we support Lock the Gate and their emphasis on protecting good agricultural land we think you cannot have good agricultural land without a good water supply. So we keep to this niche of protecting rivers.

Our submission has seven sections and I will be happy to enlarge on them. As I say, I have got a political focus due to my career in the past. There are a few things that have come up since we wrote that submission. One of them I think is a huge elephant in the room that has not been mentioned, and that is the undue influence that the mining companies and the coal seam gas multinationals have on the political processes

in our country. That was certainly brought out in Guy Pearse's book *High and Dry* about how mining executives were going into the Cabinet rooms and physically writing mining policy. I have no doubt that sort of thing would still be happening with coal seam gas, although there is no proof of that. There is this undue influence that is happening because the companies are so powerful and so influential; they hand out money right, left and centre. I know in my community they have given a community hall, they have given money to the local primary school and so it goes on. At that level they are influential buying support and certainly at the government level. I have only seen figures about the enormous amounts of dollars that the companies are giving to the United States Administration. I have not seen total figures for Australia.

The allegations of corruption I find fascinating because there is a man with the delicious name of Mr Barry Carbon who was head of the Environmental Protection Agency.

**CHAIR:** I remind you that we need to be careful about making adverse mention of particular persons.

**Ms GRAHAM:** Mr Barry Carbon made a public statement to the Environmental Institute of Australia and New Zealand, which was reported in a Perth newspaper, about how there were too many government snouts in the trough. He claims that millions of dollars has been given to government agency employees in order to give approvals. It has been printed—I would not dare say anything that had not been put in black and white that I could not support with a bit of evidence.

At the moment ICAC is investigating 110 employees of Hunter region councils—none of our councils down here of course—and other government agencies. It is nothing to do with coal seam gas, but I am just saying there is this general air of corruption and the undue influence happening in our processes.

We in Rivers SOS have been into the Department of Planning. Just on Monday we spent an hour and a half with one of our environmental scientists. He has got a bee in his bonnet about corruption in the consultancy process, that consultants are writing favourable reports or removing items that the companies do not like in order to submit them to the Government and get approval. He has given chapter and verse to the Department of Planning. I do not know if any of you can follow that up. I have not seen his written evidence but it is there, and people are raising this is a major concern.

Rivers SOS has also been concerned about the Planning Assessment Commission [PAC] because it has been weighted, on the panels of experts that are appointed to the PAC with, often, people who work regularly as consultants to the mining industry. I do not know if that is going to happen with the much newer coal seam gas extraction industry, but I note we have made a great fuss about that since 2008 when we went to see Kristina Keneally about it, and we have put it in submissions ever since, that we are not happy, that we need independent scientists to go on these panels, not people who get regular work with the mining companies.

We notice in the most recent PAC panel's hearing into coal seam gas down at Apex in the Woronora catchment they tend to have retired public servants as panel members, which I think is a step forward. But we would like to see actual scientists who are independent, and we have handed them a list of independent scientists who would be willing to be on these panels. I guess they are thought of as too risky. So far none of our nominees have been appointed. We should be watching to see who is appointed to the panels to present reports and recommendations to Ministers. Not enough attention has been paid to that.

We welcome the changes that the O'Farrell Government has been making. There are some really good things happening. We have a few of our people in the strategic land use policy area, on the Stakeholders Reference Group looking at these things and the Aquifer Interference policies. We are not happy with what we are hearing about the draft aquifer interference policy. It does not deal with pollution of water by coal seam gas mining or high water usage. I hope that people are already alerted to this problem. I think we will be able to make submissions to the government on the Aquifer Interference draft.

Many of the things that the Government has done are very welcome reforms. Abolition of part 3A was fantastic. We would like to think they will continue. However, we are worried that the Government has not accepted the notion of no-go zones. Certain areas like major river systems and prime agricultural land should be red zones with absolutely no mining or coal seam gas extraction. Apparently that will not happen. That is a worry because we understood before the election that the O'Farrell Government would definitely approve no-go zones, but things are getting grey around the edges.

We are also horrified that the Murray-Darling Basin plan allocates more than 600 gigalitres to mining. That is appalling. Irrigators and environmental flows are being cut back. The recommendation was at least 3,000 gigalitres and now it is down to 2,800 gigalitres. That is not good enough. The fact that mining companies will get an enormous increase from an unsustainable river system is appalling. The other appalling thing that the O'Farrell Government has done is to approve gas wells in special areas of the Sydney drinking water catchment in both the Woronora catchment near Darkes Forest—the Apex Energy drill has been approved with A119—and the Warragamba catchment, but I am not sure exactly where. We are talking about contaminating Sydney's drinking water supply and depleting it. That will only expand unless we put a stop to it somehow. Our political leaders are not being firm enough.

As people have said today at great length, we must have proper site-specific research for every gas well drilled. We have Special Areas, which are gated and have padlocks and you and I get fined \$11,000 or more if we set foot in them, but they are apparently being approved for coal seam gas extraction that may contaminate the drinking water and cause all sorts of problems in what should be a pristine environment. It is being protected because it filters water flowing into rivers and into the catchment. We are allowing this to happen. What sort of mad society are we? I wonder sometimes. Why is it not being stopped?

In the past couple of months three very credible whistleblowers have spoken out about this. They are not entirely against coal seam gas mining and we in Rivers SOS are not against it as long as it is done in a sustainable way. Two of the whistleblowers are hydrogeologists with decades of experience. Roy Michie was fracking things in Western Australia for many years. They have all spoken out very strongly about the risks of coal seam gas mining and extraction.

I do not know whether members have heard of Gundi Royle. There was a report about her statements in the *Sydney Morning Herald* on 28 October. She is an Australian-trained hydrogeologist who has worked for most of the major companies, including Santos and Halliburton. She has an international reputation and she is now working in France. She says it is happening too quickly in Australia and that the taxpayers will end up paying the bill. These companies will roll over the country, we will not know what has hit us and we will end up holding the baby. John Hillier, another hydrogeologist, worked for 45 years in groundwater in Queensland and was quoted as saying the same thing in a 2 September report in *Queensland Country Life*. Roy Michie, the fracker, said after many years of working at the coal seam gas face that the industry is full of cowboys who do not care what they do and that the regulation is pathetic. He said that he left the industry because he could not stand the lack of control and the cowboy attitude. More whistleblowers will speak out as time goes on.

**The Hon. SCOT MacDONALD:** Your submission relies fairly heavily on United Kingdom, United States and South African experiences. There is a paucity of anecdotes about Australia. Is there any evidence that you are comfortable with about cross contamination of systems in Australia?

**Ms GRAHAM:** There are 500,000 gas wells in the United States with 32,000 being drilled every year. We have 2,800 fairly recent wells in Australia. The groundwater contamination issue takes years to show up. We do not have the evidence here, but we have it from overseas. I can give you chapter and verse.

**The Hon. JEREMY BUCKINGHAM:** My question relates to cumulative impacts. It is my understanding that you are an expert on the impacts of longwall mining on the Lower Cataract River, the Georges River and the Nepean River. What is your view about the special catchment areas that have already been impacted by longwall mining? Do you think there should be a complete prohibition? Would it be relatively easy for the Government to rule out that area and to protect it now? Should the Government immediately move to rule out coal seam gas exploration in those areas?

**Ms GRAHAM:** I cannot believe that we have been allowing both coalmining and coal seam gas extraction in our drinking water catchment Special Areas. The whole of Sydney's catchment area stretches from Goulburn to the Blue Mountains et cetera. I am talking about the Special Areas that are gated and padlocked and kept pristine because they filter Sydney's drinking water. The fact that we are allowing these industries to trash our Special Areas is appalling. Of course we should stop it straightaway. The only problem is that there are 13 catchment authorities throughout New South Wales dealing with country drinking water. Members might know that MidCoast Water, which supplies drinking water to 75,000 residents, has complained about contamination as a result of independent water testing. It will be a problem around the country. Drinking water catchments should be protected. Because Sydney has by far the biggest population of course our Special Areas in the metropolitan catchment should be protected. No mining or coal seam gas extraction should be allowed. That should be the bottom line.

**The Hon. GREG DONNELLY:** I refer to the earlier part of your presentation where you said that two rivers had been trashed—they are your words. I invite you to forget the emotive word "trashed" for a moment and to describe what you understand has happened to those rivers.

**Ms GRAHAM:** I have a photograph taken 12 years after mining stopped on the Cataract River below my house. The person in the photograph is Gary Brassington, who is a BHP environmental officer. I like showing this photograph because it has credibility because he is in it. He took us there to see what has happened. As members can see, 12 years after the mines went underneath that section of my river it is still horribly polluted. When you fracture sandstone in the bedrock, those thousands of fractures cause all sorts of nasty things to leak out, including sodium, iron oxide and so on. The awful thing is that it is still there so many years later. Will it ever go? I do not know and no-one can tell me. You can see the weird algal growth and the horrible colour of the water. There are no fish and it is not getting much better. It is a myth that rivers heal themselves almost immediately after the mining cracks them.

**The Hon. GREG DONNELLY:** Thank you. That is helping to inform us. Was that a pristine waterway before there was mining under the riverbed?

**Ms GRAHAM:** It was absolutely beautiful. There is a weir above it. The New South Wales Canoeist's Association handbook of 1979 described that area as a "thrilling rapids run" when the river was in full flow. We have not seen that in recent years. A Cataract River taskforce looked at the problem straight after the mining happened. It reported a 50 per cent depletion in flow because the water was going down multiple cracks and fractures. The Georges River suffered likewise and Marhneyes Hole was also destroyed. There was a rock pool where kids dived off the rocks, and they even rode bicycles into it. There is now a rock fall there and they would break their neck if they tried that now. In fact, BHP had to hire a security guard for six months to warn people not to dive in. Mind you, the water is so polluted you would not want to dive in.

The upper Nepean was also cracked. We took photos of thousands of methane bubbles there in January 2008 when they went too close. It was not underneath. BHP will not go underneath, which is great. However, it goes so close that the bedrock cracks anyway. The Upper Cataract was also badly cracked. That is in the Special Area. It had iron oxide flows, methane bubbles and fish kills. That is in the special area and it should not be allowed.

**The Hon. JEREMY BUCKINGHAM:** What about the Waratah rivulet?

**Ms GRAHAM:** It is a shocker. I believe that the Hon. Jeremy Buckingham was there the other day. Many of our people have been down there. The River SOS brochures have some photos of the Warratah Rivulet, which supplies about 30 per cent of the drinking water in Woronora Dam for the residents of Sutherland Shire and the northern Illawarra. In periods of drought it provides 50 per cent of the water for those residents. The fact that this river is allowed to be so badly damaged is a shocker. Rivers SOS went to court against the Department of Planning and the mining company involved—Peabody Energy—to try to put a stop to mining in the Woronora catchment, but we lost the case. At least we were given a hearing.

**CHAIR:** It looks as though you have exhausted the Committee. Thank you for appearing before the Committee today. Are you happy to answer any questions on notice?

**Ms GRAHAM:** Yes, of course.

**(The witness withdrew)**

**PETER MICHAEL MARTIN**, Southern Highlands Coal Action Group, and

**ALAN ROBERT LINDSAY**, Southern Highlands Coal Action Group, affirmed and examined:

**CHAIR:** Good afternoon, we have a quorum, I can proceed. Prior to commencing questions from the Committee would either or both of you like to make a brief opening statement? If your statement is extensive could you table it for *Hansard* at the end?

**Mr MARTIN:** First, I would like to explain my background. I have to admit I spent 13 of my early years as an engineer in the oil and gas industry building offshore oil platforms in different locations around the world. I am not an expert on coal seam gas but I do understand how the industry and big projects work. I also spent a significant period of time working for Rothschild, who has funded major resource projects around the world. The Southern Highland Coal Action Group has 4,500 members, most of them resident in the Southern Highlands. We put the group together only 18 months ago because we were very strong in our views that the insidious invasion of coal seam gas exploration and coal mining had the potential to cause inestimable damage to the Southern Highlands.

We are extremely concerned about the unholy rush by governments in Australia to embrace the technology that is not yet proven. We are very concerned about the way this industry has been pushed through via inadequate legislation to get it up and running without proper concern for the community, the environment and the future generations of people both in this area and other parts of Australia. We have observed that part of it is driven by the global rush to get liquefied natural gas up as an export energy source and Australia's leading position in the world market for liquefied natural gas which looks like, if present projects are approved, will be the major exporter of liquefied natural gas in the world within seven or eight years.

We are concerned with the business as usual approach of Government and Government departments, despite the rhetoric. We have had personal experience dealing with bureaucrats in New South Wales and we have heard many of the statements made about moratoriums of new activities when, in fact, the majority of the State is covered with existing leases and existing activities which are a major concern. We do not believe coexistence will work in many instances. We are actually very concerned, from our perspective as people who have been in these sorts of industries, about the resources the Government can throw at both assessing and monitoring these projects. It has been mentioned before.

The other side of it is the resources that are available in industry to execute the projects. I do not think anybody has talked about that. The number of wells projected to be drilled around Australia; the number of qualified drillers and qualified companies to undertake the work which is technically complex if it is going to be executed well. There is no linkage between projects set up to go and capacity to execute. We are very concerned about the execution risk. We can give you a couple of vignettes or case studies of experiences we have had in that regard. We really do support the Government's promise to bring in regional strategic land use plans but as yet we have seen no evidence of what they comprise. We like the idea of a triple bottom line analysis but we have not seen any evidence that the Government understands what they mean: Truly taking into account the cost of these projects on the environment, on communities, on water, on land, measured against the benefits. We have not seen any evidence of an algorithm to do that and we are waiting with bated breath. We believe some areas of the State must be ring fenced: Not should be, must be ring fenced because of the characteristics of those areas and we believe the Southern Highlands should be one of them.

**Mr LINDSAY:** Our group does not deny the claims made by the coal seam gas industry that there are a number of landowners who support their activities. Generally speaking they can be classified as large landowners in marginal agricultural areas and the communities in those areas where they are seeing benefits, financial, job-wise and certainly for the farmers themselves in the form of supplementary income. It must also be said that the industry does not get support, in fact there are many people diametrically opposed to it, and these include the farmers of productive lands where I do not think the industry understands the issues involved in the farming of highly productive land. Another large group own small parcels of generally valuable land with special scenic value or with special agricultural value and these areas are often closely settled. They are the defining characteristic of the Southern Highlands. We have vineyards, olive groves, people grow truffles, and berry farms, which are small scale agricultural investments that are potentially valuable for the proponents of those enterprises and depend on the water that is available from the aquifers in this area.



Our main concerns in the Southern Highlands are the serious threat to the aquifers that either coal seam gas mining or underground coal mining can pose to us. There are commercial activities and lifestyle activities that rely on the water that is underground here. We are concerned about the proposed methods of handling the contaminated water that is produced as part of the coal seam gas extraction process. We are increasingly concerned about the impact that the coal seam gas mining will have on the landscape and the tourist industry and the effect that it is already having on real estate values in this area. Peter has mentioned, but I emphasise, that we believe the Petroleum (Onshore) Act 1991 which governs coal seam gas extraction and the Mining Act 1992 which governs coal mining should be revisited with a view to redressing the power imbalance that exists between the miners and landowners regarding these types of developments.

Finally, the Southern Highlands lie within the Sydney catchment area. We have some of the special areas mentioned earlier as part of our area here. We cannot understand why there is a rush to produce coal seam gas or to undertake the coal mining in this area where the catchment is under threat. The coal seam gas industry is a few years old, there is no shortage of gas, there is plenty of gas in noncontroversial areas where people want it and we cannot understand why there is this rush to production at this point in time, when a little bit of examination of the details, allowing the technology to mature, would be of benefit to all.

**The Hon. GREG DONNELLY:** Thank you for coming along this afternoon. Could I take you to the final page of your submission where you make some concluding remarks? The fourth last dot point on the back page you state: adequate security provided by miner to landholder from outset. I will give you a chance to read it. Could you elucidate on that point?

**Mr LINDSAY:** These points were developed by us to make some of the suggestions that we think need to be incorporated in any review of the legislation that is under way, that should be under way, but we are not seeing very much of it at the moment.

**The Hon. GREG DONNELLY:** The issue of security, are you talking about financial security?

**Mr LINDSAY:** It would be financial security, yes.

**The Hon. GREG DONNELLY:** In your opening comments about impact on land value.

**Mr MARTIN:** Yes.

**The Hon. GREG DONNELLY:** I took from your comment that there is already some evidence of there being impact on land value. I am wondering for the benefit of the Committee could you provide a bit more detail about that comment?

**Mr LINDSAY:** The impact at the moment is that no land transactions are taking place. We do not know what the final impact will be. Talk to any real estate agent around the Southern Highlands—we know there is a potential global recession—but before these issues came up, the coal seam gas and coal mining issue, properties were being transacted without any degree of difficulty. The process has ground to a halt.

**The Hon. GREG DONNELLY:** The coalmining issue has been around longer than the coal seam gas issue.

**Mr MARTIN:** Theoretically, but the recognition of both problems occurred about August last year. We only found out about those almost at the same time. So the community has been aware of coalmining and coal seam gas essentially from the same point in time. It is like a big cloud has come over the area: no land is being transacted and the negotiations are at such a level you would say there has been a serious diminution in value because there has been no land trading. It is hard to say whether it is 30 per cent, 35 per cent or properties just will not sell.

**The Hon. GREG DONNELLY:** Can I press you a bit harder on that? Is this just anecdotal or can you be more specific? For example, have you spoken to real estate agents?

**Mr LINDSAY:** We certainly have.

**Mr MARTIN:** We have spoken to a number of agents in the area and they will all universally say the same thing.

**Mr LINDSAY:** I have even more personal experience. We have part of a property on the market at the moment and have had for about three or four years and we are getting nobody to see it even though it is a very attractive parcel of land. There is just no throughput of people looking to buy that sort of rural land at the moment.

**The Hon. GREG DONNELLY:** At the end of our deliberations this Committee will be making recommendations to government for its consideration in terms of dealing with this policy issue. Would there be any specific recommendations that you would have in mind for this Committee to make to the Government in relation to the issue of the coal seam gas industry?

**Mr LINDSAY:** I think the first thing the Committee should take into account and recommend is that a very close examination be made of the particular circumstances in each area. There are a number of unique features within the Southern Highlands that would say immediately to anybody who looked closely at them that this is an area that should not be touched at the moment. I am not just talking about the attractiveness of the area; we are really talking about the geology of the area where even the coal company admits that the Hawkesbury sandstone that sits right on top of the coal seams both for coal seam gas extraction and for underground coalmining if they want to proceed down that path, that the water is right on top of the coal.

We have a coalmine here already, the Berrima coalmine, which produces about 220,000 tonnes per year of low-quality coal that goes to the Berrima Cement Works. They are trying to get their lease extended or their permission to operate extended. At the moment they have produced some reports and those reports say categorically that the operation of mining the coal, dewatering the coal seam, is affecting the aquifers above. Right at this moment they put about a gigalitre a year of water after treatment into the Wingecarribee River. This evidence is right here before our eyes and yet the community that we live in is being affected by these plans which came out of nowhere. We know that coalmining has been a potential here for about 40 years but it was not being acted upon because the coal was so poor. Now the price has gone up to \$300 a tonne suddenly everybody wants a part of it and we have had to face up to it. We knew nothing about the coal seam gas until about 18 months ago and we have had to react accordingly to that.

**Mr MARTIN:** They are the specifics of our concerns in this area but, more broadly, I do not think there is any doubt that the legislation is so heavily weighted in practical terms in favour of the mining companies in many direct and indirect ways that it needs to be completely rewritten, and a number of people have talked about that. We can talk of some practical examples. We have recently been having some discussions with some of the very most senior bureaucrats in New South Wales about how can the coal lease, particularly in this area, be renewed with all the knowledge available about the water issues? The answers we get are "Well, the legislation is actually written to encourage exploration activity". In other words, you have got to put up very powerful reasons why renewal should not happen, which we believe we have mounted legal technical reasons why the legislation has not been enforced for over 25 years in this case, before they will even consider a non-renewal.

If you look back through history I am not sure how many non-renewals have ever occurred in New South Wales. We keep hearing from the politicians, with great respect, that the taxpayers of New South Wales will pay because we will get sued by the miners. It is actually not true. There are provisions in both the Mining Act and the Petroleum Onshore Act that say that the Government is entitled not to renew leases or withdraw leases under certain terms with no compensation payable back to the companies. Yet we continually hear the mantra that the public of New South Wales are going to wear the cost if we withdraw leases. It is an absolute nonsense. I think it is about time that we started to face up to the fact that we have got all these existing leases out there and they are doing incredible damage to communities as we go. We are waiting on a State Government that made a lot of very important commitments to the community and to this State about re-engineering legislation, yet when you go and talk to the bureaucrats now operating under yesterday's road rules they will say, quite rightly, "We cannot enforce legislation that is not in place. Therefore, we have got to go with what is there". Then you go through the process of what is there and you say, "This is a nonsense".

I will give you another example. What are the work programs that these companies have committed to that they are obligated to execute during the terms of the lease before the lease is renewed? "We cannot tell you: commercial in-confidence". Who is going to measure these companies against their commitments? "We will". How do we know that the measurement is correct, because in our case one of these leases has run for 25 years and has been rolled over and nothing has happened? "You will have to go and find the information through freedom of information". So you are sitting there saying hang on, we do not believe this company is executing

according to its commitments but we cannot find out the detail, and the department has the ability to make a decision based on information we cannot see to renew the lease. That is an absolute nonsense. We should be ashamed of the legislative process.

**The Hon. JEREMY BUCKINGHAM:** You made some very good points there, Mr Martin. I can confirm that section 22 of the Petroleum Onshore Act allows governments to annul an authority without any compensation. You said that there were some issues about execution risk and that there are vignettes you were going to elaborate on regarding some of the situations that have occurred with some of these companies. Could you just expand on what you have got in your submission about the nature of some of these companies that are operating—their size, the nature of them and what your concerns are regarding the governance, how these companies are operating in terms of their farming arrangements, et cetera?

**Mr MARTIN:** I will say something and then Alan can add something. In the oil and gas industry normally leases are awarded and they are bid for. Like in the North Sea they will allocate a group of blocks and then the big major oil companies bid for them; in some cases smaller companies will bid—sort of wildcatters—whose objective is to find the oil and then onsell or upsell that or have one of the big companies farm in. In this case what we have seen is the former Labor State Government giving out these leases like confetti to companies that I call two-dollar companies.

The protagonist in our area—I do not know whether I should mention it—is a company called Planet Gas; its shares are trading at 3¢. It has got a market value of \$5 million or \$6 million. So what is the strategy of this tiny company with probably two or three people on the payroll? The strategy is to go out and hire an external crew of drillers—in this case they try to hire a crew of water drillers—to drill holes for coal seam gas for seismic exploration, and we discovered before Christmas they were approaching landholders to do that—to actually not drill holes but to do seismic exploration along public roads. Under the Act they have got to get landholder approval if they go within 200 metres of the front of someone's property. My wife was rung by one of the landowners who said, "Do you know who these guys are?" We said they should not even be there because they do not have any exploration permits. We rang the Wingecarribee Shire Council and said, "Have you guys given these people permission to actually do this work on public roads?" They said no. So here they were talking to landholders about undertaking seismic exploration. Seismic is not necessarily an invasive process, so it is not that they are damaging things; it is just that they are playing fast and loose with the law.

Three days before the State election I got a phone call from someone I know who is a driller who said, "I have just been approached by some guys who want to drill some rigs to do down-hole seismic out in Joadja Road". I said, "Who is it?" and they told me who it was—it was the same project management company representing this company. I sent an email off to Kristina Keneally's office three days before the State election and said, "What is going on?" I got a letter back from Tony Burke saying these guys had not got any exploration permits to do exploratory drilling or seismic. They had already sent a letter to the council saying they were going to start drilling in April and in the letter it did not say specifically, it infers, they had approval to go ahead.

What I am saying is who is watching what these companies are doing? These are tiny companies. With the volume and scale of activity going on across this State you have got numerous examples of this sort of behaviour, where are the policemen? Where are the people with the knowledge auditing and monitoring both their submissions and what they doing? And they will play fast and loose with the rules. We have opened the doors to these sorts of people across this country. The big companies are much more disciplined, much more process driven, and we are even seeing some of the big companies bending the rules. Imagine what all these little guys are doing. What is their ambition? All they want to do is find some gas and upsell it to Santos or Origin. Who will want to see their LNG plants out at Gladstone? That is the game. They are just asset players.

**Mr LINDSAY:** Absolutely. I find it incredibly irresponsible that exploration permits were handed out to companies like Apex Energy and Planet Gas and Leichhardt Resources—companies that have not got two bucks to rub together, and they have got no chance in this industry. This industry is highly capital intensive: You do not make a dollar until you have put all of your investment into the ground and you are producing. So the chances of these companies ever being able to raise the capital on the base that they have was totally out of the question and they should never have been given it. What they do have though is an aggressive approach; they use their aggression to get access to people's properties, they drill a few holes, they bring up the reserves that they think they have got and they flick it onto somebody like Santos or AGL that does have the capability to do it. But they have been given these permits in areas like this, areas like down on the Illawarra coast where they are operating very, very close to the wind with local residents and with people in the catchment areas and it

should never have been allowed. If AGL want gas they do not go to somebody like Leichhardt Resources to go and do the job for them; let them front up themselves.

But just on the whole question of people like AGL, it raises the whole question of why we are exploring in such closely settled areas as we have. You will see Camden there—a lot of that was government land so they have been able to get relatively easy access in places like that. But AGL are saying to everybody that there is a shortage of gas. There is no shortage of gas. In fact, what we are facing now—and Peter alluded to it earlier—is a potential glut of gas, both coal seam gas and shale gas, because the markets that we are going to sell these great export volumes into are looking to produce their own gas in due course. Within 10 years we could find ourselves with an absolute glut, and here we are producing from densely populated areas when it really is not necessary to do it.

Let them develop the technology, sure, and maybe in 10 or 20 years time there may be a good reason for the mining of coal seam gas in these areas around Sydney. But right now there is no reason. The only thing AGL are worried about is that the gas they are selling is not their gas. They want their gas but a lot of people are being upset in the process.

**The Hon. RICK COLLESS:** Thank you for a very succinct presentation. What qualifications do you have? When you were working on the oil rigs were you working as an engineer or a geologist?

**Mr MARTIN:** I am an engineer and I was involved in construction. We were building platforms on land and taking them into the North Sea or wherever and installing them and laying subsea pipelines. I was also responsible for a robotic vehicle that climbed up and down North Rankin A out in the gas fields off the west coast back in the 1980s. I have done a variety of things.

**The Hon. RICK COLLESS:** I was interested to read in your submission about the relationship between the coal seam and the Hawkesbury sandstone. From reading your submission, it is the Hawkesbury sandstone that contains the aquifers.

**Mr MARTIN:** Yes.

**The Hon. RICK COLLESS:** Do you have any idea what is the separation between the aquifer and the coal seam?

**Mr MARTIN:** There is none.

**Mr LINDSAY:** There is absolutely none.

**Mr MARTIN:** It is an interesting question because we have assembled a lot of desktop research about the aquifer. More than 200 water bores have been drilled in the past relatively short 10 or 15 years and 173 wells were drilled prior to 1985 for coal. All of the hydrogeologists and engineers who work in this area say that if you try to mine for coal or exploit coal seam gas in this area you will collapse the aquifer. There is no shadow of a doubt. Every bore log shows that the Hawkesbury sandstone is 50, 60 or 70 metres thick sitting immediately above a coal seam. It is relatively close to the surface. In Belanglo State Forest it is right at the surface and it goes like a dish under the ground.

The contention put by our proponents—or our opponents—is that we really do not know what the situation is with the water in the Southern Highlands. That is absolutely incorrect. I say that independent water benchmarking studies are vital. You can pull together a lot of the publicly availability information. In our case the area is embargoed for new bores. The Office of Water is trying to put a lid on existing bores because people are extracting too much water. We support that because we do not think anyone should extract massive amounts of water from these aquifers, which have thousands of years of old water. The point remains that there is a lot of information you can pull together in a desktop study as long as you have an independent arbiter. You do not want a company-appointed consultant who is theoretically independent. Consultants can be entirely ethical, but the brief they are given leads them to the conclusion that the company can mitigate the effects of whatever exploratory process is being used on the water body. The desktop evidence you can pull together with the proper independent people involved would demonstrate very quickly that that is not the case.

We have proposed to the mining company in our area—not the gas company—and we have put it to the Government that there should be no more exploration in our area until a desktop study is completed. It does not

have to involve millions of dollars. We think tens of thousands of dollars will pull enough information together to say comprehensively not that the aquifer will be destroyed but that there is high probability that significant damage will be done to this water body. If we are serious about protecting our water in this country, we should be going on risks and probabilities not certainties.

**CHAIR:** Thank you very much for your excellent submission and for appearing before the Committee. It is good to hear from engineers. If the members wish to put questions on notice, would be you be prepared to take them?

**Mr MARTIN:** Yes.

**Mr LINDSAY:** Yes.

**CHAIR:** The secretariat would like any answers to be forwarded by the end of January.

**(The witnesses withdrew)**

**JACQUELINE LESLEY KIRKBY**, Scenic Hills Association, and

**GREGORY JOHN BURKE**, Scenic Hills Association, sworn and examined:

**CHAIR:** Before we proceed to questions, would either of you like to make a brief opening statement?

**Ms KIRKBY:** I believe that some of the information I will present today is new and very pertinent. I thank the Committee for allowing us to present our evidence today. We are an association of approximately 50 landowners and residents living in or adjoining the Scenic Hills Environmental Protection area in south west Sydney, on the Campbelltown side of the Scenic Hills. The Scenic Hills is an important cultural asset for the south west. It is rich in Aboriginal and colonial history and protected bushland. It is part of the historic Macarthur area that is now being threatened by Sydney's urban sprawl, making it a rare and important survivor. It plays a vital role in the planning for Sydney's south west, separating Campbelltown from Camden and Liverpool. AGL Upstream Gas wants to push stage three of the Camden gas project northwards into this area of Sydney, the Scenic Hills and the surrounding suburbs against the wishes of the community and the council.

If our system of government was working properly, our association would not need to exist. After an initial battle in 2007, we reformed last year when it became clear that a culture of perverting the course of planning for local communities had become entrenched in New South Wales. We regard AGL's stage three as just the third attempt in almost as many years to override the zoning as part of that culture. Extractive industries and mines are specifically prohibited by the Local Environment Plan. Yet AGL, by dubiously classifying its project as a public utility undertaking and taking advantage of the confusing layers of legislation, can apparently avoid these prohibitions. How can it be that residents in the area who abide by the strict development controls of the protection zoning can suddenly find themselves coming home at night to sleep in a coal seam gas field, which one consultant—Atkinson in 2005—suggests should be classified as a industrial chemical site?

Like many other groups around New South Wales, we have engaged with the process in an act of good faith. We are exhausted but none the wiser. This is a potentially dangerous industry. Yet we honestly do not know what AGL has really done in prior stages of the Camden gas project, what it is doing now or will do in the future. We do not think our government bureaucrats do either. This is an industry that has apparently been allowed to operate without proper controls or monitoring, where breaches of conditions of operation have been ignored, where these are mainly discovered by the community rather than the regulators, and where penalties either are not applied or are inadequate to ensure future compliance. In short, we largely have to take AGL's word for its past and present performance, yet it is hard to pin even that down.

Less than two weeks ago, the Scenic Hills Association attended an open day on the Camden gas project along with staff from the Macarthur councils and New South Wales government departments and agencies. We listened to AGL once again change its facts and figures. Chemicals, or "additives" as AGL likes to call them, in fracking fluids increased by 1 per cent, lateral wells decreased by half a kilometre, 62 per cent of wells in the Camden gas project have been fracked using only sand and water according to the same manager who in a previous meeting told us that AGL could not frack unless it used "additives". Explanations for the Sugarloaf Well 3 incident in May omitted key information that was critical of AGL, and that was done in front of government bureaucrats charged with approving and monitoring AGL's operations.

As a consequence, we do not trust the process or AGL. If the New South Wales Government allows AGL to proceed into the Sydney Metropolitan Area without knowing what has really happened before, allowing AGL to take its own baseline measurements and to self monitor when it has a vested interest in the outcome, and knowing that there is no guarantee that there will be no accidents, it is in our opinion grossly negligent, planning issues aside. The project endangers not only the fragile Hills, but AGL also plans to put wells in residential suburbs and along the Upper Canal carrying Sydney's back-up water supply. It will experiment with groundwater that AGL says it does not know where it goes but "probably into Sydney Harbour". If we take a "precautionary approach" as promised by the Coalition prior to the election, this project application should be denied.

For the rest of the State we have no faith in the broader solutions being proposed by various governments. Industry-funded research is not independent and it is not acceptable to the community. The Strategic Regional Land Use Policy in its current form seems to us to be playing Sophie's choice with communities across New South Wales. We can find no evidence that this industry can operate safely and

economically at the same time. It seems to make a profit by taking shortcuts. We do not believe that it can operate that way anywhere. Until this is resolved, it is morally indefensible to force it onto any community.

Finally, with its greenhouse credentials in doubt, we question the strategic thinking behind wanting to play catch-up with Queensland when we have no apparent natural advantage over that State and given that we are so far behind and have evidence of the environmental damage caused in that State. Since it is generally agreed that our future lies with renewable energy sources, we question the strategic value of continuing to pour our time and research dollars into the past, and do not understand why our elected representatives are still looking for reasons to support an industry that appears to give no net gain to any community or to the State of New South Wales. We are placing our faith in this inquiry to find the answers that can make sense of this.

**Father BURKE:** That gives us much to think about. The Committee has heard again and again how the present legislation under which coal seam gas mining and the expansion into our area is being controlled is part 3A, State significance, which overrides local planning and so on. This makes victims of local councils and it is against what I think is best called the common good. It seems to me that the responsibility of government is to shape the future of our State in the best interests of all its people. That term, the "common good", comes from Catholic social teaching and the foundation of that teaching is the dignity of each human person by virtue of their shared humanity. The common good requires justice, respect and freedom for all, not simply for some or even for most people. It is not about winners and losers; the common good requires that everybody be a winner. When you have a process that is weighted to give the winners—the coal seam gas miners—an advantage, it is grossly unfair.

We in Scenic Hills are concerned about the significant impact on the environment. We are in an environmentally protected zone, which is meant to protect the remnant Cumberland Plain bushland, the landscape, Aboriginal heritage and the present activities, which are farming and religious activities. We are concerned about the environmental, health, legal, economic and social impacts of coal seam gas extraction in our area. The economic impacts affect the price of houses, land and so on. It would be imprudent and reckless to proceed with the expansion of coal seam gas extraction unless the negative impacts that affect people's lives are equitably resolved beforehand. Many of the things that I have spoken about that have a home in Scenic Hills are not necessarily economically quantifiable; they are the spiritual assets that add value to life and involve social capital. I certainly believe that some things are more important than money.

In our dealing with AGL one of the things I would like to say is it is certainly a long established big business, but what comes with that is this sense of entitlement that they are absolutely convinced that what they are doing is for the best benefit—certainly of AGL and its shareholders—and therefore they do not really listen to the concerns of the local residents, landowners and councils. The message we receive is "trust us." Upon serious inquiry and checking figures their figures change continuously upon questioning. Concerns about the impacts of coal seam gas extraction are simply brushed aside. The residents of Scenic Hills will be profoundly affected by the northern extension of the Camden gas field into our area. There is Catholic and orthodox religious communities in Scenic Hills, two contemplative convents, three religious communities, three schools, a retreat centre and a parish church will all be affected. It is contrary to the common good to ignore or downplay the impact on us, the residents of Sydney's south-west and the people of the city of Campbelltown.

**The Hon. SCOT MacDONALD:** A couple of times you made the statement that the industry was not safe or economic, have you any evidence for that?

**Ms KIRKBY:** We put a quite lot in the submission about that. If we look at the environmental assessment done for the northern expansion you will see AGL attempted to cut a lot of corners to get that environmental assessment through before the last election—and probably hoped to be able to get away with it. In the preliminary environmental assessment the consultants had said that the area should be referred to the Federal Government under Federal environmental legislation and that was removed from the one that went on public exhibition; presumably because it would slow the process down.

If we look at the Sugarloaf well 3 incident, that seemed to us to be corner cutting and what was not said earlier with the councils was the Environment Protection Authority found that they did not follow proper procedure. I do not think we know what damage was done there. In a situation like that where there is too much waste water in the well it is easier to vent to the environment rather than make sure they have adequate facilities there to contain something like that. The Hunter Valley Protection Alliance reported a similar incident where in drilling a bore in a paddock—we talked to AGL about it so I can talk about it—the Head of Operations, in response to my inquiry about that issue, said they got a rush of water and there was too much water. It was just

salty water, not out of the coal seam, and they had to make a decision as to dump it in the paddock or close the well down and so they dumped it in the a paddock. There are plenty of incidents like these where there is corner cutting.

**The Hon. SCOT MacDONALD:** You do not want to expand on the comment about "uneconomical"?

**Ms KIRKBY:** I can expand: If you look at all the things that should be done with this industry to make sure that it can operate safely, assuming that can be done once the science is in place, the cost of doing that will be so huge that I doubt that the industry will be viable. We do not know because there is no cost benefit analysis and those costs have not been put on the industry. We think the industry has to be properly policed and based on what we have seen I think you need someone out on site every time they have an activity on the well. So if they are drilling, fracking, doing maintenance, someone needs to make sure they are doing the right thing otherwise the corners get cut. Who is going to pay for that? It should not be the taxpayer paying; it should be put back on the industry. There are a lot of things like that. I think if you said: Okay, in order to make this safe let us make sure we have this in place—will the industry still be viable?

**The Hon. SCOT MacDONALD:** You mentioned a couple of times social justice. Would you acknowledge that energy and electricity prices to New South Wales people is an important social justice question and if we do not have gas we have to face the realisation that we will probably have higher electricity prices?

**Father BURKE:** That is an important issue to do with social justice. At the day with AGL that I attended a week and a half ago we were told that the price of gas is going to go up exponentially very soon: If that is the case gas will go up. We are told electricity will go up. It is certainly an issue. I do not think from what AGL told us the other day that coal seam gas is the answer. That is what they told us.

**The Hon. JEREMY BUCKINGHAM:** It has often been put forward that there is no evidence of contamination of water or exchange of polluted water between aquifers in the Australian coal seam gas industry. There are few examples, if any, of that happening. Your excellent submission goes to the heart of the most advanced coal seam gas development in New South Wales and actually raises some significant issues about how the monitoring, assessment and regulation of potential pollution is or is not being conducted. On page 41 of your submission you make the serious claim that the company is operating in breach of section 75J of its conditions of approval; in that it is only allowed to use sand and water slurry in the fracture stimulation. You have a different view. Could you expand on what your views are there in relation to their compliance about conditions of approval?

**Ms KIRKBY:** This would have been a good question to put to Campbelltown Council because they raised this issue in relation to stage 2. They had indicated that the condition had specified slurry of only sand and water. The environmental manager at the time said he would have to take it on notice and come back at a subsequent meeting, which he did, because the officer from Campbelltown Council pushed it again. As I have quoted there, he indicated that they did use "additives", as they call them. There is a dispute as to whether they are chemicals or additives. He said they were not required by Government to specify anything below the level of slurry of sand and water.

**The Hon. JEREMY BUCKINGHAM:** The requirement under the condition of approval was that they were only allowed to use sand and water but they were using an additive or chemical.

**Ms KIRKBY:** Yes, they say they use "additives". Again, that changes. We were told in that meeting that 0.5 per cent of their slurry for fracking is additives. At the meeting the other day that went up to 1.5 per cent which makes a difference to Justin Field's submission when he calculated how many chemicals would go into the aquifers.

**The Hon. JEREMY BUCKINGHAM:** Because Camden has been there for 10 years you suggest that they are in breach of their petroleum production licence, or that they may be in breach, that there is "no pollution." They have to ensure that there is no pollution under the Act. You are suggesting that there has been absolutely no groundwater monitoring to assess that?

**Ms KIRKBY:** AGL will say they have been doing groundwater monitoring because they monitor the water in their gas wells themselves. But according to Dr Gavin Mudd from Monash University, who completed a study for the Hunter Valley Protection Alliance, it was not a scientifically valid way to monitor groundwater.



**The Hon. JEREMY BUCKINGHAM:** They are dewatering the coal seam, depressurising the coal seam, that water is coming out, and they are assessing the water from the coal seam but they are doing no assessment of the overlaying groundwater aquifers?

**Ms KIRKBY:** No. In a meeting with us when we first looked at this, when it first went on public exhibition, AGL managers admitted it. I said, "Have you any lessons to bring from the previous stage of the Camden gas project to stage three?" and they said, "No because we never took a baseline measurement of groundwater."

**The Hon. JEREMY BUCKINGHAM:** So Dr Gavin Mudd, who is an environmental engineer from the department of engineering at Monash University, did a study for the Hunter Valley Protection Alliance and he said it was very concerning that this was the case. What would you like to see done? Would you like the Government to intervene and do that assessment before stage three of this proposal?

**Ms KIRKBY:** Gavin Mudd was suggesting that at any time they can start doing this kind of monitoring. AGL are trying to say, "Well, we will do it for the first time when we go into stage three", and that is just setting up the Scenic Hills in the Sydney Metropolitan Area and also the wells going into suburbs and so on as a guinea pig for future developments in the Sydney Metropolitan Area. We understand that they could go back and do all sorts of testing in the prior stage of the Camden gas project to determine if they had had any impact on our aquifers or if there is any interconnection between the coal seam and overlying aquifers.

Also, since we had that meeting with AGL when they said they had no lessons to bring to stage three on groundwater monitoring they subsequently discovered a report from stage one that had belonged to Sydney Gas. So presumably they could do some studies of stage one in terms of groundwater monitoring since the baseline was taken. The only thing I would say about that is that Sydney Gas did the baseline measurement and I think to the extent that the companies are taking their own baseline measurements you have to take it with a little bit of a grain of salt.

**The Hon. JEREMY BUCKINGHAM:** But there is some data—

**Ms KIRKBY:** There is some data there that they could use.

**The Hon. Dr PETER PHELPS:** Given the existence of pre-existing agricultural bores there, does the Department of Water not have baseline data? Have they not been doing monitoring?

**Ms KIRKBY:** There are very few bores in the Scenic Hills; it is mostly above groundwater. So the small rural allotments there are mostly using dams. Some of these dams are historic, by the way, because Captain Charles Sturt put dams right across a large part of Scenic Hills—

**The Hon. Dr PETER PHELPS:** I grew up in Campbelltown. As a young boy I can remember when all that area was farmland.

**Ms KIRKBY:** In stage two there may be some bores they could use.

**The Hon. Dr PETER PHELPS:** Presumably the one and two areas and the land which is now currently residential as farmland would have had bores and so should it have had baseline data done by the Department of Water? It might have been 20 years ago.

**CHAIR:** We may well be able to ask the Government that question on Monday.

**Ms KIRKBY:** That is something you will have to take up with someone who is a specialist in that area.

**The Hon. GREG DONNELLY:** I do not want to be critical of individuals or have individuals criticised but I want to try and identify what may be systemic problems in terms of structures. In relation to what you had to say in your opening comments, both explicit and implicit, there were some criticisms of dealing with bureaucracy to get answers to questions you had. Is that at a local government level and a State Government level? Secondly, in relation to the difficulties you ran into could you give us a little bit more detail about what

departments or at what level you were running into some roadblocks, if I could use that word, in terms of getting answers to questions you wanted to ask to discover aspects of this issue?

**Ms KIRKBY:** One of the problems that I personally ran into was trying to find out which department is responsible for what part of this industry, because it seems to me that there are at least four. When you ask one department about it they tell us that is with the Department of Planning. In terms of monitoring I had a letter back from the Office of Environment and Heritage telling me that—I cannot remember exactly which one it was—that particular issue of monitoring was to be taken up with the Department of Planning. I gather in talking to other people in the Camden Gas Project who have tried to report problems that they have had the same issue, that they get pushed from one department to another.

**The Hon. GREG DONNELLY:** You said four departments. For my edification can you identify which departments you have had contact with?

**Ms KIRKBY:** What was DECCW, which is now the Office of Environment and Heritage, but I gather that Water has now gone elsewhere so that is now another department, the Department of Primary Industries, then you have got Energy and Resources and then you have got the Department of Planning. They are the four that you need to track down to find out who can answer your question on a particular issue.

**The Hon. GREG DONNELLY:** Once again not looking for you to identify any individuals, when you were speaking to one department, in terms of them directing you to speak to another department were they able to be quite clear about which area of the department to go to? Did there appear to be an understanding with the people that you were talking to across departments that there was a lateral way of engaging with these various discussions you were having to gather the information you were looking for?

**Ms KIRKBY:** No. You just get referred to another department.

**The Hon. GREG DONNELLY:** So you were not told to speak to such and such or—

**Ms KIRKBY:** No.

**The Hon. GREG DONNELLY:** From the point of view of correspondence, be it email or traditional letters, were you able to establish contact addresses of where to send your correspondence and to whom?

**Ms KIRKBY:** No. people expect you to use the internet and find out yourself. I have now taken to putting questions through Parliament instead, and hopefully it finds the right area.

**CHAIR:** Father Burke and Ms Kirkby, thank you very much for coming and giving us your evidence. I concur with Mr Buckingham that the submission was detailed and will be of great value to the inquiry.

**(The witnesses withdrew)**

**JOCELYN ANNE KRAMER**, Sister, Carmelite Nuns, and

**JENNIFER ANNE JONES**, Sister, Carmelite Nuns, sworn and examined:

**CHAIR:** Thank you for coming to give us evidence today. Would either or both of you like to make an opening statement?

**Sister KRAMER:** Thank you very much for inviting us to present to this parliamentary hearing. We have been residents of the Scenic Hills area of Campbelltown for over 20 years. We chose to live there because it provides a setting and ambience conducive to our life of contemplative prayer. Our monastery represents a sensitive land use. AGL proposes to extend the Camden gas project through Scenic Hills despite the zoning which prohibits extractive industries and mining. Up to 12 wells are proposed for Varroville, which is the area which we live in, including six wells on the Serbian Orthodox land adjacent to us. These are likely to be within sight and sound of our monastery and chapel.

If AGL's proposal goes ahead the area will inevitably be industrialised, with rigs, wells, infrastructure involving access roads, gas-gathering lines and water pipe lines criss-crossing the hills and heavy vehicle traffic on our local no-through road. Bird song stands to be replaced by industrial noise. There are many reasons for protecting the Scenic Hills from coal seam gas mining, and some of these have already been given to you by the Scenic Hills Association. The Scenic Hills area, described as the lungs of Campbelltown, is itself a finite, non-renewable energy resource providing for the physical and spiritual wellbeing of residents and visitors to the area. It is a much-needed green space in a poorer part of Sydney that is rapidly becoming industrialised along the southern railway line east of the F5 freeway.

The Scenic Hills area has significant Aboriginal and colonial heritage, which includes houses and landscape. In terms of intergenerational equity, we owe it to future generations to preserve such places of beauty and historical value, especially in the metropolitan area. Scenic Hills contains threatened and endangered species of flora and fauna. It is home to over 70 species of birds. In Varroville we anticipate adverse economic impacts for our Carmelite friars, of whom Father Burke is one, and their retreat centre, and negative social consequences for ourselves and for all who engage in sensitive land uses: monasteries, churches and schools and the retreat centre.

Scenic Hills is vulnerable. This is not strategic agricultural land; it is within the Sydney metropolitan area close to AGL's market. We are in a David and Goliath situation: We are vulnerable. But AGL is also vulnerable. Its justification for the project is questionable. Its behaviour to date has lacked transparency and has engendered distrust. AGL audaciously proposes to advance into the metropolitan area without regard for the natural and cultural assets in its path. As a religious community we recognise that economic development is necessary and we welcome research and development into renewable energy sources. We also believe unashamedly that there are important and enduring assets that money cannot buy and that short-sighted, opportunistic commercial enterprises can irrevocably destroy in their haste to make money for the few. For these reasons we recommend that Scenic Hills continue to be protected, that the area be preserved from coal seam gas extraction and that AGL's application to expand the Camden gas project be rejected for the benefit of the present residents of south-western Sydney and for the generations to come.

**The Hon. GREG DONNELLY:** On page 3 of your submission the second last paragraph states, "The Carmelite Nuns live a life dedicated to contemplative prayer". For the benefit of the people who read the *Hansard* of this inquiry could you explain what that means?

**Sister JONES:** Part of our daily timetable is several times we dedicate to community prayer. We also have two hours a day of personal prayers and also try to develop an atmosphere of quiet where that prayer can take place. We see prayer as a personal relationship of the individual Sister with God, so that requires, like any relationship, time and space given. We would see silence and that kind of atmosphere of tranquillity as essential to developing that prayer.

**Sister KRAMER:** It is also prayer in the community aspect because the Carmelites have a balance between solitude for the individual person and the community. So we have, as Sister Jennifer described, community prayer and private prayer, and our presence in the hills draws people to come to us; we have visitors come for mass every day and we have visitors come asking for prayers for support and for various things like

that. We provide a kind of a service in the area in that sense but it is grounded in our relationship with God and our sense of presence and solace and comfort that we offer to people who come our way.

**The Hon. GREG DONNELLY:** In terms of people coming to you, do they come for retreats as well? Do you provide a retreat centre at your facility?

**Sister JONES:** We do not because of our proximity to the Carmelite friars retreat centre. We are on the same property basically, so people who want retreats go to that facility.

**The Hon. GREG DONNELLY:** I note from the submission that visitors to that centre for retreat purposes come from around New South Wales, around Australia and overseas. Do you have any knowledge about the numbers of people who go to the centre on an annual basis?

**Sister KRAMER:** They have 40 rooms in the retreat centre so they can accommodate up to that number at any one time. There are weekend retreats, week-long retreats and day retreats throughout the year. It is quite a busy centre; it is the friars' livelihood and they have been there for over 40 years; it is their main ministry in Australia and it is a significant contribution they make in this area. Particularly because as a retreat centre it is rather basic so it caters for people who could not afford to go to some of the more well-appointed retreat centres in other parts of the State.

**The Hon. GREG DONNELLY:** On the same theme, the second paragraph of the submission states, "The retreat centre could not continue to function and would inevitably cease to operate". That is a view that you have formed?

**Sister KRAMER:** Yes, because it requires an environment that is peaceful and tranquil, and having scenic beauty and space and acreage is helpful for people who come for retreat, which is meditation, reflection, spiritual guidance: they like to walk, they like to have space on their own and we are on a dead-end road so it is at the end of the road, which is quieter, and it offers those kinds of opportunities. But if you have got heavy traffic going up and down the road, if you have got rigs and trucks and wells in the vicinity the whole ambience is industrialised. People do not come to an industrial estate to have a retreat.

**The Hon. GREG DONNELLY:** Have the Sisters had any direct dealings with any of the mining companies in terms of contact and dialogue or communication?

**Sister KRAMER:** We have.

**The Hon. GREG DONNELLY:** Could you explain what that has been and the nature of it?

**Sister KRAMER:** After the exhibition period closed for the northern expansion proposal last year and we made a submission to the Department of Planning on that, AGL came and spoke to us at our monastery. The hydrogeologist John Ross, Adam Lollback and a couple of other people came and they spent a few hours with us going through the difficulties we had, the objections we had and so on and answering questions. For that we are grateful. They also took us to visit one of the wells in the Menangle area. We wanted to go and see the site on the Serbian Orthodox land next door where they propose to locate six wells. It was not pointed out where that site was. It happened to be a rather damp day; it happened to be later in the day by the time we got to that point in the conversation and we did not get over there to see that, and I am sorry that we did not because I would very much like to know where that site is and whether it is visible from our monastery.

To this day I do not know that. Following that, we made a submission to this inquiry. We were also invited to the open day the week before last and I went along to that. Again, it was an opportunity for which we are grateful. But from my point of view it was an unsatisfactory day. I asked why only 59 per cent of the wells in the Camden area were functioning at the moment. Various reasons were given; one was that some wells just do not produce gas. How can you drill a well—and in the case of the land next door to us potentially six wells—and not get gas? What is known and not known about what is there? If you do drill a well and do not get gas, what damage is done underground in the process for no return?

We were taken to see a well site. I asked to see a six-well site because that is what is proposed for the land next door to us. I was told that there are none. That leads me to wonder whether this is an experimental exercise. It is untried, untested. What do they know about six-well sites? I asked what was the maximum

number of wells functioning at one time and the answer was four. I asked if we could see it and we were told no. I do not know why; perhaps it was because it was not scheduled or it was inconvenient.

I was also told that there is one site where five wells have been drilled but that it is not commissioned. I asked why not and the answer was that no approval was given for the infrastructure for the gas gathering lines. How can a company drill five wells without approval for the infrastructure necessary to bring the wells on line? There are a number of questions I think that one can raise about this. It leads us to think the situation is obscure to say the least.

**CHAIR:** We are particularly interested in the question of equity between mining companies and landholders. You say that AGL was not forthcoming in showing you the Serbian Orthodox site. Have you contacted the owners of that site?

**Sister KRAMER:** We know the Serbian Orthodox people.

**CHAIR:** Have they shown you the site?

**Sister KRAMER:** I have not asked them. I have the impression that they are not sure themselves where it is, but I may be wrong.

**Sister JONES:** We understood from the Serbian people that they believe they have not given permission. AGL has said to us that they have. How can these things be done without any written contract? How can they say they did not give permission and the company say that they did? Why is there not some process to establish a clear path? What happens when people say they have not given permission and AGL says it has permission?

**CHAIR:** Are the Carmelite nuns' and Carmelite friars' sites adjacent or combined? How big is the landholding?

**Sister JONES:** It was originally 350 acres, and Father Greg Burke can confirm that.

**Father BURKE:** It is 315 acres.

**CHAIR:** Has the land been developed at some stage from an agricultural point of view, or is it all bushland?

**Sister KRAMER:** It is basically grazing land. There are cattle on it at the moment. It has had more intensive farming in the past, with a dairy and a piggery. It is now grazing land.

**CHAIR:** Do you believe that any of the agricultural pursuits carried out might be endangered by surrounding development of coal seam gas? Is it just basically grazing industry or are vegetables being grown?

**Sister KRAMER:** No, there are no vegetables. I do not see that it is directly threatened in that way. That is why I say that we are vulnerable. Ours is not strategic agricultural land in that sense. But the whole area is strategic in a sense. It is a green space in an area that has an increasing population density. Across the freeway and over the railway line there is extensive industrialisation; it is expanding daily and you can see new things popping up. That makes the green space all the more important and significant for this area. It is said to be the lungs of Campbelltown. It is known to be an allergy belt in this area and is said to be helpful for air quality.

There are gas wells popping up all over the place. As I said in my opening statement, we believe that this is just the beginning. What will follow from this? In stages one and two of the Camden gas project a small number of wells were approved at the beginning—I think the figure was 22 in stage one and 43 in stage two. They are now more than 100; I think there are 138 or something like that. We presume the same will happen in our area. If this project is approved, it looks as though these wells will mushroom all over the place. Whether one particular allotment is intensive farming is immaterial. We have much-needed green space, it is zoned environmentally protected and it is under threat from this industry.

**CHAIR:** You said you felt there could be a direct economic threat to your retreat.

**Sister KRAMER:** Absolutely.

**The Hon. RICK COLLESS:** I refer to your comments about the well sites. You said that the intention was to drill six well sites in close proximity to one another.

**Sister KRAMER:** Yes, on the single well location, as they call it.

**The Hon. RICK COLLESS:** Did they explain how that system would operate? Would they be drilling laterally from there?

**Sister KRAMER:** Yes, and I have read the plans. The proposal is to drill up to six wells. We do not know how it is decided whether there will be one, two, three, four, five or six. That has not been revealed to us. However, it could be six. If it is, each well takes between three and five weeks to drill, so we are looking at potentially six months of continuous noise 24 hours a day, seven days a week on the land adjacent to our sensitive land use and on land owned by the Serbian Orthodox group.

I understand that there is likely to be a vertical well in the middle and horizontal wells radiating out. How that is decided, I do not know. We were told last week that they only frack vertical wells, not horizontal wells. The horizontal wells extend up to 2.5 kilometres into the coal seam. The figure provided the other day was less than that; it was 1.5 kilometres. However, the figure in the environmental assessment report is 2.5 kilometres. We were also told the other day that they have not fracked any wells in the past three years. I thought I understood, but I may not have. I do not understand the science in this area well. However, when they initially drill the well they have to frack to open up the coal seam to get it going in the first place if it is a vertical well. That is what I understand, but that may be incorrect.

**CHAIR:** If you are happy with that, we will conclude there.

**Sister KRAMER:** I have more points I would like to make.

**CHAIR:** You have ample time to make as many points as you wish.

**Sister KRAMER:** I have a document I prepared for members of the Committee. We are concerned about the Scenic Hills area as a whole, not only our own particular situation. We are also concerned about the bigger picture. I have read AGL's submission to this inquiry and there are inconsistencies. As Jacqui Kirkby said, it is hard to understand how AGL can claim that this is a public utility undertaking, which gives the impression that it can sidestep the zoning and also avoid the scrutiny and regulatory controls that industry might be subjected to. By giving the impression that this is a public utility undertaking—that is, an essential service—it appears that it can do as it pleases in the area.

The AGL submission states that it is looking to supply only up to 6 per cent of the domestic gas supplied in New South Wales. How can that possibly be called a public utility undertaking given the relatively small proportion of gas? There are a number of inconsistencies in the proposal. That proposal should be examined closely to see how the figures match up. It is really not credible. That kind of double dealing is disingenuous. It engenders distrust in the people who read this kind of material.

The AGL submission also says that the company wants to guarantee supply. You cannot guarantee supply that small quantity; it is not possible. The company talks about transparency and supply, it being a public utility undertaking and the precautionary principle in practice. How can you drill six wells if you have not done it before, and assume it is safe? You know that when you drill one well the impact on wildlife may be at a certain level because you are only drilling for three to five weeks. If you drill for six months and there is continuous drilling, what effect will that have on the flora and fauna of the area? No evidence has been provided. I wonder about how the precautionary principle is applied in practice.

I also wonder what part sensitive land use plays in terms of government scrutiny. What value is placed on sensitive land use? Does it feature in the Government's strategic land use policy? What about the community consultation? We have had it and so have others, but only after complaints have been made. It does not come up front; it comes post hoc. AGL has displayed audacious behaviour. It is proposing to advance its activities seemingly unobtrusively into the metropolitan area via an environmentally protected area. That suggests a sense of entitlement that is deeply disturbing. Moreover, AGL's assumption that it can build its main spine of gas gathering lines and water pipes along the heritage-listed upper canal in the Sydney catchment and extend gas gathering lines through Mount Annan Botanic Gardens reinforces the impression that it has a sense of

entitlement to do whatever it likes wherever it pleases. I find it gratifying that the public is now calling for independent regulation and accountability.

**The Hon. SCOT MacDONALD:** I suspect that the 6 per cent you are referring to is what New South Wales provides in indigenous gas.

**Sister KRAMER:** Yes.

**The Hon. SCOT MacDONALD:** The rest of the gas supplied to New South Wales is for households, industrial use and so on and 94 per cent comes from all the other fields. I suspect that is the source.

**Sister KRAMER:** Yes, I understand that. However, if they are saying that this project is essential to supply gas into Sydney, it is indigenous supply and it is only going to work towards 6 per cent of the domestic market in New South Wales it does not make sense. Can you explain that?

**The Hon. SCOT MacDONALD:** It is not for me to explain. The aim is to get to a figure of about 18 to 20 per cent and therefore they need to expand the gas field. If we do not, we will be relying on—

**The Hon. PETER PRIMROSE:** I am happy to have a debate on this.

**CHAIR:** We are out of time. I am very grateful to you for appearing before the Committee today and for giving evidence. One important aspect is that we have now found someone who believes that they are facing economic disadvantage. Thank you for that evidence. If the Committee has further questions, perhaps they can be put to you on notice. Would you be happy to receive them?

**Sister KRAMER:** Yes.

**CHAIR:** If we do forward questions, we would appreciate a response by the end of January.

**(The witnesses withdrew)**

**SANDRA JILL MERRIN**, Councillor, Wollongong City Council,

**GREGORY ALAN PETTY**, Councillor, Wollongong City Council,

**PETER WILLIAM KOFOD**, Acting General Manager, Wollongong City Council, and

**RENEE LEE CAMPBELL**, Manager, Environment Strategy and Planning, Wollongong City Council, sworn and examined:

**CHAIR:** Before we proceed with questions from the Committee would someone from the council like to make an opening statement?

**Ms MERRIN:** I and Councillor Petty would like to say something.

**CHAIR:** If your opening statements are extensive I would ask you table them to assist *Hansard* with the transcript.

**Ms MERRIN:** I would like to thank the Committee for giving us the opportunity to appear today. The issues surrounding coal seam gas in the Wollongong area are of particular concern to us because there have been approvals for exploratory activity within part of our local government area within the water catchment area. Up to 50 per cent of the Wollongong local government area is in the Sydney water catchment area, so it is of strong interest to us what goes on there. The council and the local community are strongly opposed to the move of coal seam gas drilling in the water catchment area, given that there is so much still unknown of the impact of coal seam gas on the environment. I will speak about some of the general concerns and Councillor Petty will speak of approval in the protected water catchment areas.

I am not sure how familiar the Committee is with Wollongong, but we have specific landscape features. We have what has been named a biodiversity hotspot in the Illawarra escarpment which was identified by the New South Wales Office of Environment and Heritage during escarpment planning procedures. The urban setting is surrounded by defining natural features including the Royal National Park and bushland to the north, the Illawarra escarpment, State recreation areas and water catchments and dams to the west, the coastline to the east, and the magnificent Lake Illawarra to the south. The natural features and open spaces across the local government area are substantial and create a distinct environment that is unique to Wollongong and of huge importance and value to our residents. It provides a rich resource of flora and fauna to the people of the area and is a huge tourist attraction as well.

The landscape features unstable soils and high rainfall. We have some of the highest rainfall events in this country. With the impacts of climate change it is predicted by the State Government that the rainfall will increase. It provides high quality and reliable water supply to Sydney and Wollongong resulting from the relatively pristine environment, the upland swamps and the rivers and aquifers all within that area. The feeling of people in Wollongong is very strong. It has been demonstrated by the huge number of people turning out to demonstrations over recent months. Over 3,000 people have attended demonstrations in opposition to the coal seam gas industry. Some of council's recent decisions reflect those concerns and that is why we are here today. The overwhelming feeling of our residents is that we do not want increased industrialisation of our pristine areas of landscape. To give you examples, a couple of residents have come to me in the last few months with huge concerns. Even as I was on my way here today Gary, an Aboriginal person from the area, was on the phone to me. He was in tears. He was afraid that the work in the catchment areas was going to destroy more Aboriginal heritage sites. He took part with a local expert in identifying some of the Aboriginal heritage sites and caves and overhangs in the Woronora and Helensburgh areas. They found seven times the Aboriginal sites that had been identified previously in those areas.

Another resident, Sue, is a hydrogeologist. She grabbed me when I was swimming at the local beach. She worked with State Government and one of the local Illawarra councils as an environmental expert and she expressed her huge concerns to me about the unknown impacts on the sensitive aquifers and complex underground systems that we know little about. She thought the State and country were crazy to drill in those kinds of areas. Councils invited our neighbouring councils, Southern Councils Group and those in the water catchment to make joint statements in support of our decisions opposing coal seam gas mining in the water catchment and expressing grave concerns about the unknown long term environmental impacts of the coal seam gas mining. In response to that the Southern Councils Group, which extends to the border, have drafted a



statement in support of our position which will be sent for endorsement to the member councils. When it is endorsed it will then be forwarded to the standing committee. I will not go on too much further—although I have a lot to say.

I wanted to talk about risk management and the fact that the stakes are so high. We are talking about the loss of the water supply, damage to the water supply and pollution of the water supply. We are talking about damage to even more of Australia's biodiversity. We have a world record in loss of species and we are looking at clearing a hectare per well for 200 wells in this area of Darkes Forest which is in the water catchment above the Wollongong escarpment. When you are looking at the stakes and the risks the obvious things to do is take caution about what you do. You do not do this kind of activity when the risks are so high and the facts are so unknown.

**Mr PETTY:** I wish to reinforce what Councillor Merrin has said. I have not had one person approach me and say: You beauty, we have coal seam gas coming to the Illawarra. Thank you for the opportunity to address the hearing. In September 2009 the New South Wales Government approved the Apex exploration drilling project which allows 15 exploration bore holes in the Wollongong LGA. This is an area of the Illawarra escarpment including some protected Sydney Catchment Authority land which is used for the supply of drinking water. Whilst any exploration activity is yet to start an application to add another bore hole to the existing approval has recently been granted. This additional bore hole is also located in the protected Sydney Catchment Authority land. Much of the land in Wollongong's water catchment area that is used for drinking water supply is zoned E2, environmental conservation. This zoning requires not only the viable biodiversity of the area, some of which is protected by the legislation, but also the importance of protecting the land to maintain the quality water supply for a significant sector of Sydney and the Illawarra.

Only a limited number of land users are allowed in this zone and mining and exploration activities are not—repeat not—permitted. However, these activities are permitted under the State Environment Planning Policy (Mining Petroleum Production Extractive Industries) 2007 in any area of New South Wales. Why? These drinking water catchment areas are also subject to State Environment Planning Policy (Sydney Drinking Water Catchment) 2011 which requires any proposed activity to demonstrate that it will have a "neutral or beneficial effect on the environment." Even with the most stringent environmental controls it will hard to argue that coal seam gas activities will have only a neutral or beneficial effect on the environment in these catchments.

However, the requirements of this SEPP are overridden by the State Environment Planning Policy (Mining, Petroleum Production Extractive Industries) 2007 which appears to take precedence. Council is concerned that the sensitivity of the protected catchment area has not been given sufficient recognition in allowing exploration activities to occur and there is not sufficient protection for drinking water catchment areas in the guiding legislative framework. Even if the below ground issues referred to by Councillor Merrin can be dismissed coal seam gas exploration will result in a level of surface disturbance that is of concern. Consideration of exploration proposals in water catchment areas in isolation from implications of further development of coal seam gas activities in those locations is not appropriate. This appears to be the practice currently. If there are impacts, however small or big, with exploration activities, then those impacts can surely only magnify if coal seam gas activities intensify with commercial production. Therefore, it seems inappropriate to allow coal seam gas exploration in drinking water catchment areas when commercial production is unlikely to be approved.

In view of those concerns council urges the New South Wales Government to exercise the precautionary principle and rule out coal seam gas activities in water catchment areas in the city of Wollongong. Section 70 of the Petroleum (Onshore) Act 1991 has provision for certain areas to be exempt from mining activities. Council urges the Minister responsible for this Act to include drinking water catchments in this category. I would like to pass forward council's recent submission to the Public Accounts Committee inquiry on coal seam gas in the Illawarra. I would also like to pass forward my personal submission. I only became a councillor because of my efforts to fight coal seam gas. I have been personally affected by it. I have met many times with the people of Apex Energy. They are cowboys and to quote them: They do not hold the cheque book. I refer to an earlier statement that you have people obtaining licences and the licences are being passed up. Apex is certainly one of those organisations—by their own admission.

**The Hon. Dr PETER PHELPS:** Could you relate your personal experience in relation coal seam gas?

**Mr PETTY:** I became aware of coal seam gas in September 2010 when the Apex Energy proposals became publicly known. It was not publicly known because Apex was a good corporate citizen but because a local researcher found the information on the internet. At that point in time the proposed pipeline ran through

my neighbour's property. When I looked at the mechanisms that had been used to grant approvals I was horrified. I was at the time looking at land rezoning issues in the area and I believe that the land rezoning was only being driven because of the necessary rezoning reclassification of land that was required to enable coal seam gas to be put through. A town like Helensburgh, I do not believe, needed a 415-kilowatt power station.

**The Hon. Dr PETER PHELPS:** It was not a proposal to have a well on your property but a pipeline, presumably from the field to a generator, through a neighbour's property, is that right?

**Mr PETTY:** My concern was the reduction in property values that would occur on my property and the whole township as well. The town is adjacent to the Royal National Park. The consequences on the environment of coal seam gas mining in the area of the Royal National Park and the Sydney Catchment Authority drinking water is a concern.

**The Hon. Dr PETER PHELPS:** You also mentioned the footprint on the land. Could you elaborate on that? Presumably the land which you are talking about already contains fire trails and things of that nature. Why would coal seam gas operations necessarily be more intrusive than the pre-existing fire trails?

**Mr PETTY:** I had the privilege of going through the Sydney Catchment Authority land. I saw the fire trails on the Sydney Catchment Authority land. In going through it I had scratches on my car to show how narrow the fire trails are. So if we are talking about a fire trail that is two-and-a-half, three metres wide, as evidenced by my scratches, the necessary devastation on the environment requiring the bulldozing through the pipelines, which can be, I have seen, up to 20 metres wide—I do not think 20 metres is the same as two and a half metres. I think the devastation that would occur would be horrendous by comparison to using fire trails as justification for what will be needed to go through.

**The Hon. RICK COLLESS:** Councillors, for the information of the Committee could you tell us what the geographical area is that is covered by the Wollongong local government area?

**Ms CAMPBELL:** It is 714 square kilometres.

**The Hon. RICK COLLESS:** And where does that extend from north and south and west?

**Ms CAMPBELL:** From Helensburgh in the north to Lake Illawarra in the south and west to the escarpment.

**The Hon. RICK COLLESS:** In that area are there already a number of existing coalmines?

**Ms CAMPBELL:** There are.

**The Hon. RICK COLLESS:** Have you got any idea how many coalmines would be operating in that area?

**Ms CAMPBELL:** I could not give you an exact number today. I can provide information to the Committee.

**Mr PETTY:** I would like to add, if I may, that Helensburgh has been traditionally a mining town; it goes back to the late 1880s, 1890s. As an industry and a town they have melded in quite satisfactorily. I think coal seam gas—what we know today—compared to mining, I recognise the point that mining exists but coal seam gas is new, it is a different issue, and to justify coal seam gas in the area because of the existence of mining would be incorrect.

**The Hon. RICK COLLESS:** I am certainly not attempting to suggest that, I can assure you. My line of questioning was that with those existing and I guess some pre-existing coalmines that would be in that area since mining started in that area there would have been a lot of exploratory drilling that was undertaken over the years before some of those mines commenced, would there not?

**Ms MERRIN:** It has been a long-term industry. I am not an expert on this, Mr Kofod might know more, but it goes back to the old pick and shovel days. There has been mining that goes underneath the ocean, it honeycombs quite a large area of Wollongong as well as right up underneath the water catchment and a lot of

the portals to the coalmines are in the escarpment itself and then they travel a long way underneath the water catchment areas.

**The Hon. RICK COLLESS:** I am trying to establish if over the years there has been exploratory drilling that has been completed for the mining industry that would have also penetrated some of those aquifers that we are now expressing concerns about the coal seam gas industry penetrating.

**Mr PETTY:** The best example I can give you is the mining company tells me that they do a core hole that is a 50-millimetre wide hole. In 2003-04 I understand Apex Energy did a bore hole which is 15 millimetres wide, maybe 100 millimetres wide. It goes significantly deeper than the core holes that the mining industry is required to do. That is my personal experience of the difference between a bore hole and a core hole for coal seam gas versus mining.

**The Hon. RICK COLLESS:** I am just trying to establish this important point that the mining industry is accessing the same resource is it not?

**Mr PETTY:** It is not the same resource; one is coal and one is gas.

**The Hon. RICK COLLESS:** But they are accessing the same resource. The gas comes out of the coal and the miners mine the coal.

**Mr PETTY:** It is different levels in the substrata. They go down to different depths of the mine.

**The Hon. JEREMY BUCKINGHAM:** You have raised a very important point in your submission regarding the hierarchy of planning instruments in this State, and that is how your local environmental plan, which is a comprehensive planning document overseeing development in local government, interacts with the State environmental planning policies in the Sydney drinking water catchment and also with the Mining, Petroleum Production and Extractive Industries State environmental planning policy [SEPP]. Is there any indication from the Department of Planning or is there any documentation that you have seen specifically relating to the fact that, as Councillor Petty said, it appears that the mining SEPP has precedence over the drinking water SEPP? Is there a document from the Department of Planning? Have you had correspondence to that effect?

**Ms CAMPBELL:** No correspondence. In relation to the reading of the Mining, Petroleum Production and Extractive Industries SEPP and the Sydney Drinking Water Catchment SEPP, both of those SEPPs contain a clause which indicates that any inconsistency between this SEPP and another SEPP is overridden by this SEPP. Both of those SEPPs contain that same clause. That is why we have indicated that it appears that the mining SEPP overrides the Sydney Drinking Water Catchment SEPP because the recent approval by the Planning Assessment Commission for the sixteenth additional bore hole was in the Sydney drinking water catchment area. The Sydney Drinking Water Catchment SEPP indicates that there must be a neutral or beneficial effect on the water quality. The Department of Planning's advice to the Planning Assessment Commission was that they were satisfied that there were minimal impacts as a result of coal seam gas activities, which is what has led us to believe that the mining SEPP overrides the State Environmental Planning Policy for the Sydney drinking water Catchment.

**The Hon. JEREMY BUCKINGHAM:** It is not clear; it is an interpretation that has been handed back to you from the Planning Assessment Commission?

**Ms CAMPBELL:** That is correct.

**The Hon. JEREMY BUCKINGHAM:** So as planners you are looking at it and saying which one has precedence: They both have the same clause? It is handed off and you are making that judgement on the basis of the fact that it has been approved?

**Ms CAMPBELL:** That is correct.

**The Hon. JEREMY BUCKINGHAM:** It seems almost an inconsistency that they would say there is minimal impact. That is not the term; it is neutral or beneficial. So if it is minimal is it minimal beneficial impact? I am not being facetious; it seems the assumption that there must have been some impact, you would

assume it is a negative impact so therefore it has completely overridden what is a really important planning document. Is that your view?

**Ms CAMPBELL:** That is our assessment, yes.

**The Hon. JEREMY BUCKINGHAM:** In the local environmental plan you have got an area zoned E2 in the template local environmental plans in local government, and you have got environmental conservation, and I think your submission says that there is important biodiversity and water supply. That seems a sensible zoning. What sorts of things are prohibited in that zoning?

**Ms CAMPBELL:** It might be easier to answer by saying what is permitted within that zoning. It is quite limited. Permitted with consent are environmental facilities, environment protection works and extensive agriculture and recreation areas. What is prohibited is business premises, hotel or motel accommodation, industries—and coal seam gas appears to be under the definition of industry—and a range of other prohibitions.

**The Hon. JEREMY BUCKINGHAM:** What about residential development?

**Ms CAMPBELL:** That is not permitted in an E2 zone.

**The Hon. JEREMY BUCKINGHAM:** You can have coal seam gas but you cannot have a house. You can have coal seam gas but you cannot have a small business or bulky goods or any of those things?

**The Hon. Dr PETER PHELPS:** Could you have a rifle range?

**Ms CAMPBELL:** Not by virtue of the local environmental plan.

**The Hon. Dr PETER PHELPS:** Could you have a rifle range? It is a recreational facility.

**Ms CAMPBELL:** The local environmental plan does not allow coal seam gas. It is not by virtue of the local environmental plan; it is by virtue of the mining SEPP which overrides the local environmental plan.

**Mr PETTY:** There appears to be an anomaly that we had the Sisters here as the last speakers. They are not E2 but they have residents and they have coal seam gas. We have E2, no residences, but we have not got coal seam gas. So I would suggest to the Sisters that they get their local environmental plan changed to E2.

**The Hon. JEREMY BUCKINGHAM:** I do not think that will help. Wollongong has been the focus of a large protest. In your experience as councillors have you ever witnessed anything like the sort of community concern in Wollongong to any issue such as this? Some people would suggest that there has been some level of concoction or it has been coordinated, but is this more organic? Is this a legitimate across-the-board community concern?

**Ms MERRIN:** Personally I have not seen very many people coming from outside. Always these kinds of accusations are made when there are public demonstrations like this that people are being brought in from outside the area. But if we look at the over 3,000 strong participants in the so-called Seacliff Bridge Walk, which was held a few weeks ago, those kinds of demonstrations about coal seam gas were held across the State, and I believe across the country, at the same time on the same day, and I think our demonstration was probably larger than most others across the country. So because they were held everywhere I do not think people were brought in from outside. Personally I took part in that demonstration and I knew quite a few of the people there. There was a huge range of people—not your usual environmentalist types that you might expect but a whole range of people from all different areas, people from across the board.

**The Hon. PETER PRIMROSE:** Can I take you to page 6 of your submission where you seek to address specifically item 1F of our terms of reference dealing with the effects of greenhouse gas and other emissions? One of the things we have heard almost as an axiom by many people is that coal seam gas is a transitional fuel, that that is because it is cleaner in relation to greenhouse gas. We know, including from the Worley Parsons report and the absolute debate that has occurred over that in the last couple of weeks, that that is a contested matter. In your submission you also contest that in your questions 17 and 18. Could you talk to the points that you raise in relation to that matter?

**Ms CAMPBELL:** I think you have summarised it quite well, that the impacts are not well understood, and council's submission and position in relation to coal seam gas has been that the short-term and long-term environmental impacts, including greenhouse gas emissions, are not well understood. We do not pretend to understand the science and, in fact, that is why we have put forward the submission and we seek some answers from this commission and further research to be undertaken so that some of these views that are being put forward in terms of this being a cleaner source of energy can be independently researched and addressed.

**The Hon. PETER PRIMROSE:** Would you believe, for instance, that there needs to be a lifecycle assessment? I note that Worley Parsons indicates that the bulk of emissions from coal seam gas occur during the exploration and production phase.

**Ms CAMPBELL:** A lifecycle assessment has been suggested in our submission.

**Ms MERRIN:** I understand that the Worley Parsons study contains a very low estimate of the percentage of fugitive emissions. I have seen other assessments and comparisons with actual measurements of those kinds of emissions of more like 20 per cent to 30 per cent of the overall emissions. I think we have to get that information; we do not have it. I am sure it varies enormously from place to place. We also need to take into account all of the other externalities, such as what you have to do to clean up the produced water and to transport it. There is a lot of land clearing in our case and we have to address the greenhouse gas emission impacts of that. There are a lot of externalities which local environment and the local people suffer and which need to be costed when comparing the efficiency of different energy sources.

**The Hon. PETER PRIMROSE:** I understand that you are calling for a lifecycle assessment and you believe that the concept of coal seam gas being a transitional fuel is contested and that it needs greater scientific assessment?

**Ms MERRIN:** Yes. The technology on renewable energies is so far advanced now, especially in the solar field, that we question whether we need a transitional fossil fuel when we could be putting our resources into developing renewable energies to take over our power needs once the gas fields start to run out, we reach peak oil and so forth. We need to be putting resources into renewables. We can meet our needs using renewable energy. We just need to encourage it and put resources into it.

**CHAIR:** Thank you.

**Ms MERRIN:** I will table the comparison I referred to with the Worley Parsons study. I would like to table a number of other documents.

**CHAIR:** That is fine.

**Ms MERRIN:** I have the Wollongong City Council's sustainable policy, which talks about protecting biodiversity. I also have a letter from the National Parks Association Southern Sydney Branch in support of Wollongong City Council's position. It speaks very strongly in favour of protection of some of those green corridor areas adjoining the Royal National Park. I also have a National Trust article about coal seam gas mining, which makes a few strong statements, and a media article about fracking in the United Kingdom possibly being linked to earth tremors.

**CHAIR:** Please also provide copies of your opening statements either now or in electronic form. Thank you for appearing. I also thank the Highlands Golf Club for allowing us to use these excellent facilities and the audience for giving us such a polite reception. As we have gone around the State holding public hearings most complaints have been about the microphones. I thank our anonymous sound engineer who has done such a fantastic job today.

**(The witnesses withdrew)**

**(The Committee adjourned at 2.33 p.m.)**