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SENATE

ENVIRONMENT, COMMUNICATIONS AND THE ARTS
REFERENCES COMMITTEE

Reference: Impact of mining in the Murray-Darling Basin

TUESDAY, 29 SEPTEMBER 2009

OAKEY

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SENATE ENVIRONMENT, COMMUNICATIONS AND THE ARTS

REFERENCES COMMITTEE

Tuesday, 29 September 2009

Members: Senator Birmingham (*Chair*), Senator McEwen (*Deputy Chair*), Senators Boswell, Ludlam, Troeth and Wortley

Substitute members: Senator Siewert for Senator Ludlam

Participating members: Senators Abetz, Adams, Back, Barnett, Bernardi, Bilyk, Mark Bishop, Boyce, Brandis, Bob Brown, Carol Brown, Bushby, Cameron, Cash, Colbeck, Jacinta Collins, Coonan, Cormann, Crossin, Eggleston, Farrell, Feeney, Ferguson, Fielding, Fierravanti-Wells, Fifield, Fisher, Forshaw, Furner, Hanson-Young, Heffernan, Humphries, Hurley, Hutchins, Johnston, Joyce, Kroger, Ludlam, Lundy, Ian Macdonald, McGauran, McLucas, Milne, Minchin, Moore, Nash, O'Brien, Parry, Payne, Polley, Pratt, Ronaldson, Ryan, Scullion, Siewert, Sterle, Troeth, Trood, Williams, Wortley and Xenophon

Senators in attendance: Senators Birmingham, McEwen, Ludlam and Williams

Terms of reference for the inquiry:

To inquire into and report on:

- a. the potential impacts of current and projected mining operations on all environmental values in the Murray-Darling Basin and, in particular, the potential impacts upon surficial and groundwater flows and quality in the alluvial flood plains at its headwaters in the Namoi Valley and the Darling Downs catchments; and
- b. evaluation of the potential impacts in the context of the Murray-Darling Plan and agricultural productivity.

In these terms of reference, 'mining operations' includes all minerals exploration and all minerals extraction including exploration for and extraction of gas.

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Committee met at 12.02 pm

CHAIR (Senator Birmingham)—Welcome to you all. Thank you very much for coming along. It is my pleasure to declare open this public hearing of the Senate Environment, Communications and the Arts References Committee in relation to its inquiry into the impacts of mining in the Murray-Darling Basin. The committee's proceedings today will follow the program as circulated. These are public proceedings and we do have members of the media present. If any witnesses appearing have concerns about being filmed or the media presence, please let us know and we can discuss that with you. The committee may also agree to a request to have evidence heard in camera and may determine that certain evidence should be heard in camera.

I remind all witnesses that in giving evidence to the committee they are protected by parliamentary privilege. It is unlawful for anyone to threaten or disadvantage a witness on account of evidence given to a committee and such action may be treated by the Senate as a contempt. It is also a contempt to give false or misleading evidence to the committee. If a witness objects to answering a question, the witness should state the ground upon which the objection is to be taken and the committee will determine whether it will insist on an answer, having regard to the ground which is claimed. If the committee determines to insist on an answer, a witness may request that the answer be given in camera. Such a request may of course also be made at any other time. A witness called to answer a question for the first time should state their full name and the capacity in which they appear. If witnesses could please speak clearly into the microphones to assist Hansard in the recording of proceedings, that would be appreciated. Mobile phones should be switched off.

With those formalities over, I warmly welcome witnesses and those in the gallery today. At the outset, can I record the thanks and appreciation of the senators on the committee for the assistance we have had this morning from local community groups in showing us some of the regional impacts around the local area of the issues that we will be discussing today.

[12.04 pm]

BIDSTRUP, Mr Jeffrey Walter, Chair, Haystack Road Coal Committee

CHAIR—I welcome representatives of the Haystack Road Coal Committee. Thank you all for joining us today. We have received a submission from you, which is submission No. 61 to the inquiry. Do you wish to make any changes or amendments to that submission?

Mr Bidstrup—No.

CHAIR—Would you like to make a brief opening statement to the committee before we proceed to questions?

Mr Bidstrup—Thank you to the committee for coming to Oakey today. Haystack Road Coal Committee was set up in September 2008 to resist a plan by the Queensland government owned Tarong Energy to sell their recently acquired mineral development licence 383 for an open cut coalmine. Since its inception, the group has become interested in the broader picture of the unnecessary destruction of prime farmland everywhere and the attendant flow-on socioeconomic effects to the community and the current and future generations. Haystack Road is an area of premium flood plain at the Murray-Darling headwaters and is characterised by its extremely uniform and low slopes, with grades averaging 0.02 per cent—which equates to a one-metre fall for every 5,000 metres in distance. The slope allows floodwaters to spread and beneficially wet the soil for future and current crops and prevents fast run-off and erosion. Any diversion or surface disruption creates serious flow-on effects downstream and for surrounding farmers. The higher subsoils contain 31 tonnes per hectare of sodium, and open-cut mining will expose this sodium through the risk of flooding or leaching to enter the Murray-Darling in the 30- or 40-year mine life.

Given the disastrous impacts of mine flooding on Central and North Queensland rivers over the last two summers, our group has no confidence that the EPA is capable of producing a plan robust enough to ensure the safety of the Murray-Darling. Many submissions have concentrated on the effects of salt from the coal seam methane extraction, with suggestions that 2,000 tonnes per day will need to be managed over the 30-year period. None of the companies we have spoken to appear to have any firm plan for how to dispose of this salt. Again, it is an extreme risk to allow the Queensland EPA to control its management, given their disappointing results with two consecutive, devastating, one-in-100-year floods in the north. We believe there is a real need for the Commonwealth to ensure that the processes at the head of the Murray-Darling are secure. With 300 years export supply of coal in Queensland, it is surely inappropriate to unnecessarily destroy our premium food bowls before we have exhausted our poorer soils. Given the daily reports of the need to double our food production in 40 years and the declining production in the Murray-Darling, we need a federal policy that protects our best food production assets until we decide that we in fact need energy more than food.

I note with interest that the submissions from the Minerals Council of Australia and the Queensland Resources Council both call for a planning process, as do we. In fact, at the Senate

committee hearing on 9 December 2008 Melanie Stutsel from the Minerals Council of Australia said:

We therefore consider that a more appropriate role for the Commonwealth would be in strategic bioregional planning, pre-emptive of development pressure and across larger time frames. Individual projects would then be approved by states and territories, which would have responsibility to ensure that the project fits within the remit of the bioregional plan. The Commonwealth's role would then be to assess, list, monitor and report on ecological entities of national significance, to develop regional plans that cross-cut natural resource portfolios—for example, biodiversity, water, minerals and socioeconomic values—and audit states and developers on the subsequent implementation and compliance with these plans and approval conditions.

We agree. Since our submission, the Queensland government has released a blueprint for Queensland's LNG industry, and the website is there. We do not see that this blueprint provides a satisfactory solution to the issues of the Great Artesian Basin, salt management, food bowl management or socioeconomic activity for when mining finishes. We commend our submission to you and we would be pleased to answer any questions.

CHAIR—Do any of the other people giving evidence wish to make any make any opening remarks? No. Thank you very much. I should record an apology from Mr Geoff Hewitt, a member and the co-chair of Future Food QLD. We had him listed today as appearing but he has sent his apologies. We have a submission from Future Food QLD. We note the remarks of Mr Hewitt in that regard. Mr Bidstrup or others, firstly, you indicated that the committee had taken a broader role in relation to mining developments in the region than perhaps it was initially set up to do. Could you provide us—so that we have it on the record—with a summary of what those developments are? Could you include both those that have been undertaken and the proposals as well as the range of issues that you will be considering?

Mr Bidstrup—The initial proposal from Tarong was for an open cut mine, but then they suggested that for the area it could be used for coal seam methane, underground coal gasification or possibly underground coalmining. Our group have had to consider all of these issues. We have since been advised by mining engineers that the chance of underground coalmining, coal seam methane or underground coal gasification in our area is slim, so we believe that it is probably only open cut coal that is likely to affect Haystack Road. But it has catalysed the group, I guess, to understand the larger issues that are faced by the whole Murray-Darling Basin and all the premium flood plains. We have taken a broader view. We have looked at all the issues, even though we do not believe—on the best knowledge that we have—that anything bar open cut is likely to affect our particular area.

CHAIR—At present, the development around Haystack Road is at what stage? Is it at the exploration stage still?

Mr Bidstrup—No. It is a mineral development licence. It is one stage ahead of the exploration stage. I am not sure about the other states, but in Queensland we have an exploration permit for coal or for other minerals. Once a company believes it has a minable resource, it can either apply to go direct to a mining licence or it can go to a holding stage, which is a mineral development licence. If the government sees fit to grant that mineral development licence, as I understand it, it precludes anyone else from going in there with a licence to mine gold, diamonds or petroleum. That is because it is a bit like a probationary licence. You have the right to move

ahead with your plans for a mine. Tarong never intended to mine. They intended to sell the resource to get the money. They explained that to us very frankly and very clearly and we believe very honestly. I put on the record our appreciation particularly of the honesty of Mark Turner from Tarong, who was the General Manager Mining Operations.

They originally got the licence when they bought another licence nearby called Glen Wilga. They were planning to mine and rail coal to Tarong because they had issues with the ownership of the mine at Tarong. They have decided that they do not need Glen Wilga, and they never needed Haystack; it just happened. With financial pressures, the government have said to them, 'Sell your assets.' That is the understanding we have. They have moved ahead to a mineral development licence with the intention of selling it. The global financial crisis obviously intervened and coal prices came down by half, so it has not yet been sold.

CHAIR—The situation that you as a community face at present is one of uncertainty, I imagine—that is, that this mineral development licence exists over the land and the site but you do not know if or when somebody will come along and agree to purchase it and actually proceed with development.

Mr Bidstrup—Absolutely. That is exactly the case.

Senator WILLIAMS—Mr Bidstrup, the Queensland government sold that licence 383 to Tarong. Is that correct?

Mr Bidstrup—No. My understanding is that Tarong acquired it from Shell. My understanding is that you cannot sell an exploration permit. You can acquire one and they are often bundled with mining licences and whatever else to get value. When Tarong got that exploration permit, it was probably valueless because of the world price of coal. They got that exploration permit in the nineties. As coal went up, it became a valuable resource.

Senator WILLIAMS—You mentioned in your opening statement the disastrous flooding in Queensland on mine sites. I think you said that was in Central and Northern Queensland. Can you expand on the disastrous flooding, as you said, and on what were the effects on the environment of those floods?

Mr Bidstrup—The effects in Central Queensland on the Fitzroy River basin were these. Some towns had to drink bottled water for quite some months because the water supply was totally ruined. The Ensham mine in particular—

Senator WILLIAMS—So because of the flooding in that area contaminants were washed into their local town water supply?

Mr Bidstrup—They were washed into the water supply and then the mines had to be dewatered, and the only way they could dewater them was to pump the water into the river. Ensham obtained a permit from the EPA to dewater the mines into the river.

Senator WILLIAMS—So these were open cut mines and a lot of water went into the cuts themselves. They had to pump it out of the cut and they pumped it into the river system?

Mr Bidstrup—Yes. They were massive open cut mines. Most of you probably would have seen photos of a dragline with just the tip of it pointing out under 300 or 400 feet of water. The mine was another 150 or 200 feet below that. They pumped water from one mine into the river for, I believe, well over 12 months. But there was not just one mine; many mines were affected.

In North Queensland, there are photos on record of rivers running blue from, I think, the Lady Annie mine, which was a copper mine that had gone broke, and the tar water dam. So the copper sulphate was in the river. I do not have the photos here, but the photos are on record in *Country Life* and elsewhere. There are literally dozens of results of rivers being polluted from mines flooding.

Senator WILLIAMS—I am not sure of the names of Queensland departments but in New South Wales we have the Environment Protection Authority. You have a similar body in Queensland obviously.

Mr Bidstrup—Yes, we do.

Senator WILLIAMS—And they allow pumping out of mines into the river system?

Mr Bidstrup—Yes. That was the only way they could recover the mine.

Senator WILLIAMS—I find that amazing. For example, an open cut mine was set up at, say, Haystack Plains and the flood occurred here, as is likely in summertime in the subtropical area where you can get some very heavy thunderstorms. If that were to be pumped out with the same sorts of activities carried out as what you are saying happened in Central and North Queensland, then those contaminants would contaminate the river and would flow down the Murray River?

Mr Bidstrup—Absolutely. That is the reality of what happened in Central Queensland. Towns had to rely on bottled water for months and months—I do not know how long—because they could not use their own water supply for drinking.

Senator WILLIAMS—Were there any other effects on the river system in relation to fish, the vegetation around or irrigators pumping out of the river? Do you know whether there are any other effects of the contamination in those rivers from the emptying of the mines?

Mr Bidstrup—Anecdotally there are a lot of effects. I do not have proof positive of the other effects but there is a lot of anecdotal evidence of changes in aquatic creatures. I do not have the evidence, I am sorry, Senator, to be able to nominate it, but there is much anecdotal evidence of the impact on the stream all the way down to the mouth of the river.

Senator WILLIAMS—You mentioned in your opening comments that a federal policy is needed to protect these sorts of areas. Can you expand on that? As legislators that is our interest, of course, if things are wrong. We look at the legislation to see whether it needs amending or adding to. Can you make some suggestions about what federal policy you think is required as far as you are concerned in this area?

Mr Bidstrup—We read Melanie Stutsel's comments and we think that is a fairly good outcome. We need a broad plan. From where we sit with the Queensland EPA under the control

of the government, it is very difficult for a community like ours to see that there is enough differentiation. We are told that the South Australian EPA sits outside government control and so is somewhat independent. We think that for Queensland that would be a much better situation, but obviously the Senate has no control over that.

Senator WILLIAMS—So what you are saying is that there may be a conflict of interest the way the current system is set up in Queensland. When you have one government body, the EPA, and another government body, the minerals department, whatever it is called, do you think there is a conflict of interest there?

Mr Bidstrup—Given what happened in Central Queensland it is very difficult from my point of view not to personally think that that is what must happen. I guess we see that given the relevance of the Murray-Darling, the fact that it runs through four states, there really does need to be some overarching national body that ensures that the same things cannot happen as happened in Central Queensland because, quite frankly, under the current legislation, as we understand it, they can.

Senator WILLIAMS—I know in New South Wales two companies on the Liverpool Plains—BHP Billiton and Shenhau, a Chinese company—paid the New South Wales government something like \$400 million in total for exploration licences and then they require a mining licence to proceed to full scale mining. How does it work in Queensland? Do they pay the government for their exploration licence or do they pay for the mining licence? Are you familiar with the payment system, if I could put it that way, in Queensland?

Mr Bidstrup—I am not authoritative enough. My understanding is that they do not pay for an exploration permit. They are granted an exploration permit on the basis of their ability to explore and maybe to bring that to development. Then I believe they do not pay anything for the mineral development licence. As far as going to a mining licence is concerned, I cannot comment.

Senator WILLIAMS—Obviously the Queensland would receive a royalty from the mining of those minerals and resources.

Mr Bidstrup—My belief is that that is where the Queensland government sees the value—the royalties from the mine, plus the employment and the economic activity that goes with it. We accept that they are all extremely valuable. We only contest the fact that we are wasting one asset for another asset when we can have both.

Senator WILLIAMS—You make a very good point. There are two things that Australia does very well: one is agriculture and one is mining. They have both delivered enormous wealth to this country. It is a pity they come into conflict at times.

Mr Bidstrup—Our premier says that we have 300 years supply of coal at last year's record export levels. She stated that at the community cabinet. Most people would say that we will not be exporting coal in 300 years time. We say that we probably will still be exporting food, so why don't we keep that asset secure and do both?

CHAIR—Mr Bidstrup, for the sake of a bit of clarity about the region and what we are dealing with here, can you explain the connectivity between the Haystack Road region and the Murray-Darling system?

Mr Bidstrup—The Haystack Road region is a flood plain which Cooranga Creek, the Jandowae Creek, the Jingi Creek and Dead Man Gully run through. They then flow into the Condamine River, which then flows into the Balonne and down the Darling. It is not the headwaters but it is near the headwaters of the Murray-Darling.

CHAIR—And the mineral licence that has been granted is over an area that affects some or all of those creeks in terms of the catchment zones?

Mr Bidstrup—It affects some of those creeks, yes. It affects the Jingi Creek and the Jandowae Creek.

CHAIR—Have any conditions been placed on that licence, that you are aware of, that would directly impact those creeks?

Mr Bidstrup—I am not aware of any.

CHAIR—You have highlighted in your submission some particular concerns about the impact of operations on aquifers. How important do you see that as a community?

Mr Bidstrup—The aquifers on Haystack Road for our community are not significant. We do not have an aquifer of irrigation water—like where we were yesterday. Haystack Road is all dryland production, bar one little irrigation farm at the end of it which very seldom gets water. The only water that we have ever had when we were stock was water out of the coal bed. It was salt water, which is the issue with the coal seam methane. It is the same water that they extract. As we said in our opening, we have broadened our focus because we believe it is a community issue and a socioeconomic issue, and we are interested in what happens with the coal seam water.

We understand the massive economic potential that is there that cannot be left untapped, but we do not believe it should be tapped at any cost. The concern we have for other people—not for ourselves—includes the interconnectivity of aquifers, which we do not believe is understood and we have never found anyone who does understand it very well. Water is a very hard thing to measure. Whilst they can be a different aquifer, the pressure in one aquifer, I am told, can hold the pressure in another aquifer—so that there may be interconnectivity. When we are talking about the Great Artisan Basin, which goes from here to the other side of the country, it only takes a rift or something in one place we will never even find to change that interconnectivity.

I note in the blueprint—and I have given you some pages in the handout—that it says that the gas companies have to make that good if something happens. Our question is: how in 50 years time if a bore at Oodnadatta goes dry is a gas company in Queensland that has left and gone somewhere else going to ever make that good? Who is going to make that good? So there are the potential impacts down the track. The blueprint is just an outline—and we commend it as being a start; it is something—but it is not answer. We have real concerns about how this happened. It has only come out. I think it came out the day the submissions closed. We commend the

government for addressing it, but it is just a beginning and this industry is happening. It is not beginning; it is happening. There are massive ponds out there now and there is tremendous sale. There have been issues already—without any plan. We need a plan.

Senator McEWEN—Mr Bidstrup, you talked at some length about the possible impacts of mining on aquifers and water. Are there any other impacts on the local community that you could envisage being problematic if the development was allowed to go ahead? I am thinking in terms of traffic, noise, dust, rail usage et cetera.

Mr Bidstrup—We are already seeing impacts there. I think the community has accepted those impacts with goodwill because we understand the value that is there. Road traffic in the area has very significantly increased—manyfold—which then flows onto the council and which then flows onto the ratepayers, which is us. It is only in recent times that the council have begun to have any ability to actually get some of that money back. Because most of the coal seam methane wells are on private property, they have not been able to rate them differently. I cannot give you a figure but I am going to guess that it is probably tenfold traffic on many of the roads. But we live with that. We accept that because economic activity is good.

Housing prices have gone through the roof. That is very good for the council worker who wants to retire but it is very poor for the council worker who is renting. It has caused a very big social issue in the communities. I have friends who are school teachers who tell me that the children who were living in town in the cheaper houses are disadvantaged. They are no longer cheap houses, so they have had to basically go out into the countryside. They have less support from the social services and they come to school less because no-one can just walk around and see what has happened. All those are downsides to it.

The Deputy Premier of Queensland, Paul Lucas, has, to his credit, stated on many occasions that communities like ours need to ensure that when mining goes—because mining is a temporary industry; it will only last for 30 or 40 years—we still have a community structure to maintain our communities. So the issue that we have tried to address is the fact that, if you take out the prime agricultural land, which is the basis of the bulk of the commerce for Dalby and Chinchilla, you do not have the backbone of those communities and they become ghost towns. We are saying that when there is an alternative—and there is an alternative—do not ruin the backbone of our communities.

Senator McEWEN—You mentioned the potential economic benefits of mining. Do you have any sense of what kinds of jobs could be created if the mine went ahead and whether they could compliment the existing jobs in the area of whether in fact they might take people away from other occupations?

Mr Bidstrup—Unfortunately, most people in the area have found that they do tend to come in with the glamour and the wages. Well, it is not the wages. We believe the wages we pay and the conditions we give are equal, but there is a certain glamour with all the new industry and so forth, so people tend to move there. One of the major electrical contractors in Dalby had 32 staff and he lost 16 to the mine. So they come and they take the best. They target the best. The Condamine Electric Co. in Dalby will openly tell you that. With our farming businesses, we have had to reassess how we employ people. We do not have the massive wealth that they have. So somehow or another we have to have other benefits. We do that but it is difficult. There are side

benefits. Brendon, who is beside me here, is a farmer who actually works at the mines on weekends. So there is a benefit there.

Because the mines come in in such a hurry and they need such a massive workforce, they do not tend to do apprenticeships or anything else; they just come in and suck the skilled people out and leave existing businesses to train apprentices—knowing full well that, as soon as they get trained, these guys will come along and offer them \$150,000 a year or whatever the figure is. I should not quote that, because I do not know what they pay. So it is a massive impost on the existing industries. For industries like the farm machinery dealers, their mechanics go. They are set in a wage structure that equates to Toowoomba, Gatton or anywhere else that does not have a mine. So if they start paying more it creates a fair bit of mayhem.

Senator McEWEN—Is it perhaps the case that mining will keep some of those skilled people in the region at least instead of seeing them go to Brisbane or to major centres?

Mr Bidstrup—I guess so, except that they come and the first people they target are the ones who were already there and probably planned to stay. So those people probably would have stayed anyway. There is no doubt that it brings skilled people to the area and that is good for the people at hotels, shops, houses, real estate agents and so forth—it is great. But there is a whole other world out there that is paying a significant price for it.

Senator McEWEN—You said that you thought there should be a federal plan. Is that for the management of the Murray-Darling Basin? Is that what you are talking about?

Mr Bidstrup—I think there is already a certain plan for the management of the Murray-Darling Basin and, again, I refer you to Melanie Stutsel's comments about an overall bioregional plan. We have been keen to see the state government set up a plan that actually says: 'These are the prime farm lands that should not be mined until there is no option. This is the area where we would like to see mining. This is the area where we would like to see gas. This is the area where we should maintain farming.' We do know that the state government is considering these things, so I need to preface that by saying that it is not without hope but it is not here and we are still under threat. I think that the federal government should have an interest in what is happening. There is the possibility of 2,000 tonnes of salt a day coming to the surface without a plan of how to dispose of it in the headwaters of the Murray-Darling.

Senator McEWEN—Are you saying that the federal government should require the states to have those sorts of plans, rather than saying the federal government should take over the whole legislative framework for mining?

Mr Bidstrup—Yes, I do not think the federal government should take over the legislative framework for mining, but I am not a legislative expert to know what should happen there. I believe that what we have seen now has happened because there is a void of any control now. It can probably happen in New South Wales the same as it has happened in Queensland. Queensland has just exploded. It was stated at the Surat Basin Energy Conference that the Surat Basin is possibly the third largest energy precinct in the world—not just in Australia but in the world—behind Saudi Arabia and I cannot remember where else. We run a poor third. We are not close to them, but we are third. We are actually ahead of Canada's tar sands, which is a massive production area. So it is a massive production area that is being developed at breakneck speed.

We understand the reasons behind it; we just believe that if the state government does not have the ability to catch up then the federal government should have something in there, a catch net, to stop it happening.

Senator McEWEN—Thank you, Mr Bidstrup.

Senator LUDLAM—Thank you very much for coming in and for your evidence, Mr Bidstrup. You spoke earlier about keeping mining out of prime farm land. How do we define that? What kind of criteria would you want to see, in this region at least, to determine where coexistence is possible and where it is not?

Mr Bidstrup—That is always going to be a sticky issue. There are many definitions of prime farm land around the world. We see it as areas with a proven production history and with support infrastructure. So, if you look at Haystack Road at Warra, we have grain silos and the railway line—we have the amenities. A plain of whatever size in the middle of nowhere that has never grown anything may have produced some fat cattle and that is great. We understand that is also valuable. We believe the community should have some say in it. When we discussed this at one of our first meetings with the Deputy Premier, Paul Lucas, he came up with the view that there are ways of mapping such that we can have two per cent or three per cent and dial it up and maybe the community can have some input into how much we want to say should not be mined. We do not have the skills to say, ‘This is the line,’ and that is going to be difficult. We recognise that that is going to be difficult, but the government has maps for everything else and we believe that is possible.

Senator LUDLAM—You also said before that you are not completely without hope because some of these processes are underway. What are the risks of two large mines in this area—the proposed site that we visited this morning in the valley and also the expansion of the mine at Ackland? What is the possibility of both of those projects going ahead in the absence of any of that kind of regional planning?

Mr Bidstrup—My personal view is that, in the absence of that regional plan, the Ackland mine is probably a fairly strong possibility. I am out of my depth; I do not know the real answer to that.

Senator LUDLAM—I will just rephrase the question. In terms of the timelines, as you understand them, for the mining proposals and the timelines for what the Queensland government is telling you about the state of the regional planning, are the projects going to come down before that regional plan has been put in place? Is that the concern?

Mr Bidstrup—I do not know the answer to that.

Senator LUDLAM—That is fine. Is there anything in Queensland law, either in the mining act, the Environmental Protection Act or anywhere else, that sets aside agricultural land or provides any way of assessing it or is our legislative framework blind? In a sense, it is not blind to ecologically sensitive communities. We have a way of evaluating that. What do we have for agricultural land in Queensland?

Mr Bidstrup—We have a definition of good quality agricultural land that is very broad. It is basically a definition that covers a very broad area of land. As I understand it, it is the good quality land in an area, not necessarily the best quality land in the state. The government says that it has the power to stop anything because of that, but a mine has never been stopped, so we have minimal confidence. The government owns Tarong and the government has been suggesting to Tarong that they need to sell Haystack Road for a mine. So we do not have a great deal of confidence that the government is this time going to pick up \$400 million for Haystack Road and then tell whoever buys it, ‘You cannot mine it because it is prime country.’

Senator LUDLAM—We were told yesterday in the Liverpool Plains hearing in Gunnedah that there is actually no possibility of coexistence in that particular region. Either you can have the mine or you can have the farming country but not both. You are sort of proving up here that there is some form of coexistence because obviously you have got mining operating already. As far as those two projects that I am talking about go, is there a sense in your view or in the view of the group that coexistence is possible or is that not the case?

Mr Bidstrup—An open cut mine and farming are mutually exclusive. There is no coexistence. We regularly see people who are opposed to us talk about coexistence. We believe it is a furphy. You cannot have a hole in the ground and farm; they are mutually exclusive. In our case, with the impacts that would be cited on diversions of floodwaters and so forth, it is going to impact a very large area. So in that area of open cut mining they are mutually exclusive. They cannot coexist. However, just a couple of weeks ago, I visited some of the coal seam methane facilities on grazing country where they coexist very admirably and very well because the footprint is minor—it is a well here and there. That would create some impact on the way we farm because we use GPS steering, the flood plains are so flat and roadways have an impact. I believe that with coal seam methane we probably could live with it. We would prefer them to be somewhere else. But, having said that, our advice is that we are not suitable for coal seam methane anyway. That is not set in stone; that is what we believe. Underground coal gasification creates dips in the ground and when we are so flat that would then create a swamp or a diversion, so we see major issues with that. Yes, you can coexist in some areas with some types of mining. Obviously, with underground mining, you can coexist. We are too shallow for underground mining, so we do not believe that any of the mining that is proposed for Haystack Road is compatible with farming.

Senator LUDLAM—Getting back to that point, which a few folk have made, about how flat the country is and the little bit I have read in the submissions about how the farming community started taking out some of the roads and some of the things that had been diverting water and channelling it, if you wanted to install a dam on your farm of the scale of some of these mining proposals, would you be allowed to do that?

Mr Bidstrup—No!

Senator LUDLAM—For the benefit of the *Hansard*, the witness laughed.

Mr Bidstrup—No, absolutely not. We are not allowed to build anything other than about a 5,000 metre dam for stock and domestic use. A 5,000 metre dam is half a megalitre. We are talking about hundreds of thousands of megalitres in total here.

Senator LUDLAM—How was that assessed? If you did propose to do that on a farm, who would tell you that you could not.

Mr Bidstrup—The government. There are very strict laws in place, partly because of the Murray-Darling legislation with overland water flow harvesting and so forth.

Senator LUDLAM—Are mining activities regulated to the same degree of strictness, or is there a separate set of rules?

Mr Bidstrup—They probably are. It would be very easy for me to say, ‘No, they have a separate set of rules,’ but I believe they do work to the same set of rules. But they are talking water from an aquifer, not from overland flow. That aquifer is still part of the Murray-Darling. They will eventually treat that water for the blueprint and either return it to the Murray-Darling or to some other beneficial use within the catchment. I believe they are subject to the same rules as us, but obviously they have the knowledge, the experience and the money to do offset counts and all the things that are not open to a farmer.

Senator LUDLAM—To what degree is the town united? We saw the demonstration out the front when we came in. I was looking around for a banner for the friends of coal with a black triangle on it or something, and I could not see any such group. Is the town more or less of one mind as far as these projects are concerned, or has the issue become polarising?

Mr Bidstrup—No. In our case it has not been polarising at all. We have one or two farmers who say, ‘They wouldn’t be so silly; it would never happen.’ They would be the furthest out that way. Almost everyone is extremely concerned. We considered coming here with our flags and banners today, but we thought that it was a Senate hearing and it might show disrespect, so we didn’t.

Senator LUDLAM—It would have been entirely appropriate. Thanks very much for coming in.

ACTING CHAIR (Senator McEwen)—On behalf of the committee I would like to thank very much all of the representatives from the Haystack Road Coal Committee both for your submission to this inquiry and for taking the time and making a considerable effort to appear before us today. The committee appreciates it very much indeed.

[12.45 pm]

NEWTON, Mr Wayne, Councillor, Agforce Grains, Agforce Queensland

WAGNER, Mr Drew, Senior Policy Officer, Agforce Queensland

CHAIR—Welcome. Thank you for coming along to talk to the committee today. We have received your submission as submission No. 53. Do you wish to make any amendments or alterations to your submission?

Mr Newton—No, thank you.

CHAIR—Would you like to make a brief opening statement before we go to questions?

Mr Newton—Thank you for your time. As I personally see it, I am a farmer on the Darling Downs and a farmer that is going to be affected by coal seam gas production in the very short term. We have been fighting an awareness campaign with the wider community about some of the issues involved. There are three main sectors. There are the national or wider community issues, such as environment and food security; regional issues; and farm-level issues.

One of the real problems we have is the lack of appreciation of the cumulative effect that all of this mining activity in the Surat Basin is going to cause. In the next three to five years we are going to see 36,000 wells drilled. That is just in the next three to five years. This development will keep occurring for probably the next 30 years. As the previous speaker, Jeff Bidstrup, said, this is probably going to be the third largest energy province in the world. But we caution that we must see some care taken in this development, because we could see the third largest environmental disaster in the world come along with it.

In Queensland we have heard prime agricultural land represents only a very small part of the state. It could be in the order of less than five per cent. In fact, really top-quality agricultural land such as represented on the Darling Downs is probably less than two per cent of the state. In Queensland our politicians tell us that there are between 300 and 700 years supply of coal, 300 years worth of methane gas supplies and who knows how many years of Syngas that could be produced from underground coal gasification.

The issue of salinity is certainly one of our biggest issues and it is my personal biggest issue. If people take the time to read the Queensland government's own blueprint for the LNG industry and also the Australian Petroleum Production and Exploration Association's submission to your own committee, the total amount of salt that could be being produced in this region could reach as high as 50 million tonnes over 30 years. A lot of people have put in their report numbers much smaller than that. If you simply look at the maximum potential water production, which is in the order of 280 to 300 gegalitres per year, with 6,000 parts per million salt—and that is a reasonable average given the fact that it varies from two to something like 10—you can very quickly do the sums and get to those numbers. That represents 130 B-double loads of salt that are being extracted from their entombment hundreds of metres under our country, where it was safely locked up and out of the way, being brought to the surface, when our state government and these

mining resource companies have no plans for the safe disposal, containment, storage and handling of this product. This product is able to totally poison the agricultural ability of our farmland. It can totally destroy it. One only has to travel to parts of southern Australia to see the damage that salt can do.

We also have issues with chemical residues. We know that there is a nasty concoction of chemicals that is used in the process. One of the more recently highlighted processes is what they call 'fracking', where they fracture the coal seam beds with a concoction of quite nasty proprietary chemicals. The industry will not tell us what they are, but reports from the US point out that they do contain a number of quite toxic and carcinogenic chemicals.

One only has to do a search on the internet of the Powder River experience in the US to see that around the world coal seam gas extraction has led to serious damage of groundwater reserves. In our region, these water reserves are critical for farmers, for stock and domestic water and for our rural communities, because often towns depend on these subartesian water supplies to supply their communities.

One of the other new, impending problems is underground coal gasification. There are a number of reports of the dangers to underground water reserves from that process. Uzbekistan is a prime case in hand. Everywhere around the world where they do it they have issues with contamination of underground water.

The Haystack Group have already outlined some of the issues with flood plain management. Our prime agricultural lands cover a very large area of very deep alluvial soils. They are highly productive, they have an extremely high water-holding capacity and they make farming in this part of the world, where we have always had a very unreliable climate, reliable. Without these soils, we would not be in business. Cropping production in most of Queensland is not possible because they do not have this asset. If the soil is all to be turned over and pushed into great hills and heaps or poisoned with millions of tonnes of salt, we will all be out of business.

We all know Australia is very blessed because, since the first days of settlement and the first major drought years, we have always had an abundance of food. This has bred total complacency in Australians regarding food security. Everywhere else in the world this is now a major issue. But no-one in Australia even knows about it let alone cares. Burgeoning world population will see a need for us to increase or double our production in the next generation. And yet we are here on the Darling Downs, as part of the Murray-Darling Basin, actually putting at risk one of our greatest food baskets.

Governments make much about the make good provisions in the legislation. That is fine when you are dealing with a small opal mine out the back of nowhere or a small mining development, as has historically been mainly the case in Queensland. But no-one can tell me that any government or any mining company will be able to make good if they totally cause the catastrophic collapse of one of our major water reserves in Queensland or poison literally millions of hectares of our prime farmland. You cannot do it.

We also have issues with the Queensland government not even enforcing the current requirements in relation to reporting. Under the current Petroleum and Gas Act they are required to receive reports from the resource companies about water production from their wells. Until a

few months ago not one of those reports had been lodged. The lack of independent monitoring, auditing and oversight of this industry, which has been raised earlier, is a major concern. The EPA is now within the same department as the department of mines. We have seen over the years a number of issues where lack of independence has been a major problem.

I will quickly move on to community. These developments are occurring at the cost of our local community for the benefit of the nation and the state. The mines and their activities, the explorers, the people who run the drilling rigs and the thousands of utilities that drive up and down our roads now are destroying our local community roads—yet there is only one group of people who pay for it: us. The state government, which stands to make hundreds of millions of dollars in royalties, still has not shelled out to fix it—and does not seem to have any inclination to do so.

Then we can move down to the farm level. We are going to suffer from loss of amenity. We are already seeing mental and physical health problems with the landowners caused from stress; devaluation of their capital assets; health and safety issues; loss of productive land and revenues; impacts from construction such as dust, noise and light; potential loss of water supplies, which is already an issue; traffic movements, as I mentioned; and the imposition of infrastructure and pipelines on properties.

I would like to thank the Senate committee for coming along and listening to our problems.

CHAIR—Thank you very much, gentlemen. I apologise for missing the beginning of your presentation. We have been provided with some information and a document called *Blueprint for Queensland's LNG Industry*. It goes through some of the changes that the Queensland government has decided to enact when it comes to coal seam gas. I take it from the comments you have made that you think those changes are inadequate?

Mr Newton—I feel by and large that this document totally misses the point of addressing the biggest environmental issue facing the region in relation to LNG production—and that is salt. Salt is only mentioned in a cursory way in this document. The immense size of this problem cannot be overstated. This whole industry should be renamed the 'salt mining industry'. We are going to see more salt produced from the Surat Basin in the next 30 years than probably the total amount of grain produced in the next 30 years. We have logistical problems in this state, in this region, moving grain. I do not know how they think they are going to move this anywhere. The industry and the government still have no plans for its disposal. Salt cannot be burnt. Salt cannot be just flushed into the ocean; it is contaminated with a number of other products. It has to have a commercial use. I suggest that, if you land that much salt on the commercial market, there will not be any value; and the value of freight is going to far exceed what the salt is worth, anyway. We just do not see any plans for the salt. It is the biggest problem here. The water is going to be great; there are all sorts of things we can do with water. We have communities, towns, cities—the whole of this part of the state is crying out for water. That is fine. But we need a solution for the salt.

CHAIR—Has industry got a solution as to what they are going to do without evaporation ponds?

Mr Newton—We are told by both government and organisations that are responsible for some of these rules that evaporation ponds are to be done away with. All of those that are there are to be fully rehabilitated within two years. The only use of any ponds will be just for water management or balancing flows et cetera. I believe their main idea at the moment is to use reverse osmosis to desalinate the water. Some of the companies are exploring this technique, but I have been told by one of the people in the industry that the development is occurring so fast at the moment that the lead time for the construction of such major plants is not going to allow this to take place. At the same time, from talking to people in my community, I know that local construction companies are still going at breakneck speed building major evaporation ponds. I do not care what they call them; they are evaporation ponds. They are clay walled structures just like we use for irrigation and water storage up here in this part of the world. We are not allowed to build any of those anymore, but these construction firms are still building evaporation ponds at breakneck speed.

CHAIR—Your submission, in talking about salinity, estimates production of approximately 62½ thousand tonnes of salt per annum. Where are those figures derived from?

Mr Newton—I did elaborate with my own figures. I would like to say that that is a very conservative number. If you look at the APPEA document you will see that they mention that the annual production of salty water will be in the order of 280 to 300 gegalitres. That is in the industry submission. At 6,000 parts per million, that means there will be the annual production of 1.6 million tonnes of salt. It has a maximum, but that is in their figures. If you look at the range of their figures, the minimum will probably only be a third of that. So we are still talking about an extreme amount of salt that is going to be produced right across this region.

Mr Wagner—Can I explain some of those figures. The unfortunate reality of what we are dealing with here is very much like trying to grasp a column of smoke. Every second day we get revised figures on how many wells, how many sites, how many areas, how many gegalitres of water and how many parts per million that water carries. The figures we put together were based on information freely available at the time of writing the submission. The information that we presented there was extrapolated to show a minimum standard. At no point in time did we want to overestimate what that number is. But, considering that number is still very large, looking specifically at the Murray-Darling Basin, they are the figures that we ran with. With information that has come to hand since the posting of this submission, we have extrapolated some of those numbers across the state and they are the figures that Mr Newton is using there. But the figures within the submission were what we had to hand at the time. They show not so much what was proposed but what was in the approvals process or already under management structures of some degree.

Senator WILLIAMS—Mr Newton, you mentioned 1.6 million tonnes of salt being produced each year. It will not be able to be sold because of the desalination plants in the cities et cetera.

Mr Newton—It is going to be a product that is much more acceptable to the market because it does not contain any contaminants.

Senator WILLIAMS—So what are they going to do with 1.6 million tonnes of salt per year?

Mr Newton—That is what we would like to know too.

Senator WILLIAMS—If you put it in a heap and it rains on the heap it is going to dissolve and go down the river system.

Mr Newton—The only chance we would have is that we might actually get it high enough to put some snow on it!

Senator WILLIAMS—It will have to go high in Queensland.

Mr Wagner—If I could just expand on that, there has been some discussion too about the water usage that comes with that salt. We are talking about very large volumes of water. There are positions at this point in time that water must be utilised for beneficial use, as per the decree the previous senator was talking about. That means having no more evaporation ponds.

The price of the treatment of that water cannot be passed on in any way. That has to be borne by the resource company. The prices for the transfer, the holding and the delivery of that water to a landholder can be taken into account. But it also can be a very short timeframe as far as that resource is concerned. A lot of the extraction processes for these mines can take anywhere between five and 12 years. Therefore, you not only have to wean yourself on to the water resource but also wean yourself off it in a short period of time. The unfortunate reality is that the water comes and goes but the salt stays there for a very long time. There has been some discussion about putting it into very large pits and capping them under compressed clay. That is a very interesting concept for anyone who has tried to build a very large storage capacity for anything within this area. Most of the water storages will still have a capacity for leakage, regardless of what the compression ratios of their clay walls are within this region. Indeed, having that sort of sleeping giant within an area just because it has a cap of clay over the top of it could be a very interesting environmental scenario further down the track as well. As to what they want to do with the salt resource post this process, hopefully this inquiry can find those details out. We would dearly like to know the result of that.

Senator WILLIAMS—No doubt when we hear from Santos later on we will hear their side of the story. It is interesting to note that in the Queensland government's blueprint for LNG they say that evaporation ponds are to be discontinued as the primary means of disposal and that transitional arrangements are to be developed in consultation with industry. It would be interesting to know what the transitional arrangements actually are.

Mr Wagner—It would also be interesting to know what they are actually doing with their water in the meantime, considering the fact that a lot of these sites are already operational and that there is a lot of water being held in a lot of storages right now.

Senator WILLIAMS—If we get flooding rains through the summer, especially heavy rainfall—and, as you know, you can get 100 millimetres of rain in an hour or an hour and a half in these sorts of areas, as we do in Inverell on the odd occasion—that can fill a pond very quickly. I want to take you back to where you said coal seam gas has had adverse effects in the US on groundwater. Can you expand on that? Can you tell the committee what has happened in the USA? What can we learn from that? Can you expand on that, please?

Mr Newton—The experience from the United States is particularly well documented. Probably the best known experiences were in the Powder River Basin, which is in parts of

Oklahoma, I believe. In that area, coal seam gas development and the extraction of the water from the coal seam led to the total draining of the surface aquifers in those regions. The entire water resource drained down into the coal.

Senator WILLIAMS—I will just hold you there for a tick. So they might have gone done one kilometre, for example.

Mr Newton—Probably several.

Senator WILLIAMS—Perhaps 1.5 kilometres. There might have been two or three aquifers above that. They have drained them dry. Some of those aquifers had bores and pumping for rural stock water et cetera.

Mr Newton—The main source of both stock and domestic water in all of these regions were those aquifers. In this case, the companies were forced to make good, which meant that they then had to pipe potable water to all of the towns and the individual farms that had been drained of their water resource.

Senator WILLIAMS—What about the salt that they are producing there? Do you have any reports?

Mr Newton—In this particular area, by and large they were extremely lucky because the salt content of this water being extracted from their coal seam was quite low and so it was able to be used as a potable water supply. That is not the case in Australia. We are finding that generally some of the best water supplies still have 2,000 parts per million salt and it ranges right through to almost a third the salt strength of seawater.

Senator McEWEN—In your opening statement you said that you are going to be affected in the very near future by coal seam gas production. You said that there would be 36,000 wells in three to five years. Is that in the whole of the state or in the Surat Basin or in Darling Downs or what?

Mr Newton—That is in the Surat Basin.

Senator McEWEN—Do any of those wells exist at the moment?

Mr Newton—Oh, yes.

Senator McEWEN—Can you describe what one of those wells is like and, presuming that it is on an agricultural property, what it means on that property?

Mr Newton—Currently most of the development of this resource has occurred on non-agricultural land—that is, it is on grazing property—so the direct effect on the primary producer has been rather minimal. In fact, sometimes its presence has enhanced the property. The problem is, as they are moving now onto the high-value, high-production land that I have, for example, and that constitutes most of the Downs, they are going to put infrastructure at approximately 900-metre intervals. This consists of a well that is drilled down 300, 400 or 500 metres, depending on the depth of the coal seams. It is equipped with a pump that is electrically

powered, and the generator for the pump runs on gas that they extract from the well. They simply have some of the gas diverted from their production in the well and run it through a filter and a screen to remove all the moisture, rocks and so on that might happen to be in the gas. It runs what is basically a petrol motor that drives a generator set, and the generator set supplies power.

Most wellheads that we have seen would cover an area of approximately five or six metres by anything up to 20 metres long. In the grazing lands they are usually fenced off to stop the intrusion of livestock. If we are going to have that sort of infrastructure dotted right across our farming lands, it is going to be a major problem for us carrying out our normal day-to-day farming operations. A lot of the Darling Downs is in a conservation farming system these days. It is all zero or minimum tillage. Ploughing has been replaced by herbicide usage to control weeds. More recently, most farmers have adopted controlled traffic, which is where we drive our tractors, our harvesters and our spray rigs on the two same sets of tracks every 8, 10 or 12 metres, depending on the individual farmer's farming system. These machines are all guided by GPS. Basically, the object is to keep all of the heavy contact with our farming soils to an absolute minimum and to keep what does occur confined to well-defined areas. This aids us getting more water into our soil, increases yields and increases the reliability of our cropping production.

Senator McEWEN—When the mining company comes saying, 'Mr Newton, I want to put a well on your property,' can't you just say no?

Mr Newton—I wish I could. The answer is no. I do not own the resource. The state government gives the right through a petroleum lease, in this case, for the development of that resource. The mining companies are allowed to come onto my property with five days notice to do exploration. They have to compensate me for damages that occur on the small area of ground they affect. If they go to the production phase then we have to enter into more negotiations to come to an agreement about compensation. Traditionally the amount of compensation that the companies are talking about does not reflect either the true hindrance to our overall farming operations or the fact that they are always there. Again, in some of the grazing lands further out they have actually put in infrastructure for the landowners. They have built gravel roads and have even put in water supplies and other things at times, and some of those compensation arrangements are quite acceptable. But this infrastructure is going to stand approximately two metres high and will be dotted all across my farming land, which I have gone to great deal of care to clear up to get rid of all the hindrances and things that can divert and change water flow across our flood plains. Then they need access roads that I do not want that are going to cause problems with weeds and security on my property, and there are going to be all sorts of potential biosecurity hazards there. It is just not currently being reflected in the compensation being talked about.

Mr Wagner—It is not just the impact of the actual wellhead pad that Mr Newton has mentioned. It is not just the hundred square metre pad that we are talking about. It is also then pipeline easements, storage dams and the ability for them to come onto your property any time they want. Some of the pipelines we are looking at at this point in time are being proposed as exclusion zones. Regardless of the fact that you may only have a one hundred square metre pad in the corner of a paddock, you might have a pipeline that goes directly through that paddock that may have a 30-metre exclusion attached to it, which allows for no farming whatsoever over

the top of it. There are also the large storage facilities. Regardless of the fact that these evaporation ponds will no longer be determined or entered into, that water has to be at least stored somewhere prior to any treatment process. Obviously post that treatment process there has to be transfer and storage capacity as well. Regardless of the fact that we might see 36,000 of these hundred square metre wellheads sitting around, the overall implications of the resource impost, regardless of the land access itself, still go far beyond just that pad.

Senator McEWEN—You said there are not any on agricultural land at the moment.

Mr Newton—Only a few.

Senator McEWEN—Why do you think there has been such a small take-up, if you like?

Mr Newton—On agricultural land?

Senator McEWEN—Yes.

Mr Newton—This is a very new industry, Senator. It is really only five years old. I would think that when they were doing the early parts of the development they stuck to the lower value country, because if the industry did not work out they were not going to be making such a big impact around the place. I also suspect now that there is a major push for them to move on to some higher value country because of two other reasons. They could be related to tree clearing, bearing in mind that our land is already fully cleared, except for the roadways where they keep going through and knocking down the remnant vegetation just for pipelines. Of course, Aboriginal native title has been totally distinguished on our land. A lot of the other land they have been working in is state government forest reserve and would still have native title rights.

Senator LUDLAM—How are the cumulative impacts of multiple overlapping projects like this assessed in Queensland?

Mr Wagner—The very short answer there is that at this point in time each of the resource companies will tell you that they are sharing their data, though anyone with any commercial-in-confidence knowledge as to how these projects work would find that notion quite ludicrous. It has only been in very recent times—when I say that, probably the last two or three months, looking specifically at the water issues or the aquifer issues—that any of these companies have admitted to having any capacity or even possibility of impacting on aquifers. But the death by a thousand cuts or the cumulative impact that we are constantly referring to is at no point in time actually monitored, measured or verified by anyone other than the resource companies themselves. As mentioned by my colleague earlier, at this point in time the state government has the capacity to require that monitoring to be done under two specific sections of the petroleum and gas act. But until very recent times, regardless of the fact that some of these sites have been operational for several years now, that information has not been made available to the government, nor has the government actually chased it. So the overall knowledge about what that cumulative impact is, regardless of an action plan if there is an impact, is null and void at this point in time because it does not exist.

Senator LUDLAM—You say until very recent times they were not calling that information in. Has there been a bit of a shift?

Mr Wagner—There has been, mainly because of some possible lobbying work by various industry players. As I mentioned, there are two very specific pieces of legislation—I believe, from memory, sections 265 and 256. You might realise where some of that lobbying work may have come from. That position is being fought for at this stage so that we can gain an understanding, holistically, as to what is going on rather than just being reassured by a resource company that they are not having any impact whatsoever.

Senator LUDLAM—What is the state of consultation? Are they holding town meetings and that sort of stuff or are you just having to find out about this work in the media and with knocks on the door?

Mr Wagner—The reality of a lot of the consultation is, yes, there is quite a bit of it done in the public forum. We are also finding now that there are resource companies that are demanding that these consultations be kept private or completely commercial-in-confidence. Therefore the participants within some those consultative forums are not allowed to divulge any information once they leave those doors. The resource company will tell you that that is for the protection of the participants. Regardless of that, it is very difficult to then provide to a community that knowledge of what is going on. Dare I say, any external observer might see that there would be some issues if that information were not made freely available anyway.

We quite often see the ‘courting’ of a community, if I can use that language, by some of the resource companies. They promise the communities all sorts of events and outcomes. They sponsor everything from a cockroach race right through to the local horse races, car races or whatever to show how much money they are injecting into the communities. But the average salary of one of their production managers would outstrip anything they put into a community in a 12-month period anyway. So, yes, there is some consultation apparent.

Through work that Agforce has done, we have been able to stimulate the government to provide some resources for ongoing consultation processes between government, the resource companies and landholders. We have appointed two deputy mining registrars, who are based in Roma but who also spend some of their time in Dalby. They are specifically there to deal on site with the issues that many of these landholders are having and through a community liaison officer they do have a capacity to provide that consultation. But most of the consultation we get is often through the environmental impact statement process. Unfortunately, those documents now seem to be measured in kilos, not pages, because in recent times we have seen one numbering 13½ thousand pages and one numbering 8½ thousand pages. So that consultation is there, but the format used or process undertaken may not be the most efficient at this point in time.

Senator LUDLAM—That is very diplomatically put. You spent a bit of time in your submission talking about good quality agricultural land and how that is defined. Is it your proposal that that land should simply be quarantined for these sorts of activities, or is it not that simple?

Mr Newton—I think it would be an excellent idea to see the very best agricultural land in this country quarantined from this sort of development. The value from resource extraction is going to be a very short term fix for government coffers and for this country. We are talking about projects with 20- and 30-year life spans. The production of food in this land will continue for

thousands of years, come hell or high water. Australian farmers are renowned for their adaptability, and with all the other issues that we have on our plate at the moment I am confident that Australian farmers will step up and address and manage those issues. We have already managed enormous change over the last 30, 40 even 200 years, but these are external changes where we are getting such massive forces at work in our community, on our farms, that we currently do not have any power to control.

Senator LUDLAM—Would you propose a bit of a moratorium on these sorts of developments until that regional planning can be done? It seems to me from the evidence that we took yesterday that there are moves for regional strategic planning that may see agricultural land quarantined but that the resource companies are moving much too quickly for that work to even be undertaken. Does it feel like that is the case here?

Mr Newton—The word ‘moratorium’ has very interesting connotations in Queensland at this point in time. But Agforce has investigated the process of doing exactly that. We have had some consultation with various government departments as to what the outcomes of that would be, and that is indeed an avenue that we are investigating at this point in time. The difficulty we have at this stage, though, is the unfortunate reality of drawing a line on a map. It has its own vagaries attached to it. We have seen that with such issues as exceptional circumstances. If you draw a line on a map, it becomes a very dangerous issue as to what impacts it has on the ground. So we are also trying to fully understand what that means ourselves before we instigate that type of investigation.

But there is a stark reality at this point in time in talking about some degree of exemption or sterilisation of these works across these lands. Just to give you a very quick example, in the state of Queensland we have nature refuge programs. These nature refuge programs are entered into voluntarily by landholders, and attached to that is what is called a conservation agreement. A conservation agreement goes over their title and is held in perpetuity.

There is evidence that the levels of protection of biodiversity values are greater in some of those protected areas on private land than they are in most state run and managed national parks. Yet regardless of that conservation agreement, regardless of that in-perpetuity protection level, we are seeing mining companies being provided with development licences and extraction exploitation permits on these sites. So if we are going to move to some degree of moratorium or some degree of protection it will obviously need to be at the highest of levels. It will need to have the backing and support that would make that one also be in perpetuity.

CHAIR—Gentlemen, thank you very much for your time and evidence today. It has been greatly appreciated by the committee. The thought and passion that you have put into it is appreciated as well.

Mr Wagner—Thank you, sir, and all the best with your inquiry.

CHAIR—Thank you.

Proceedings suspended from 1.25 pm to 2.17 pm

GREEN, Mrs Vicki Susan, Member, Friends of Felton Inc.

McCREATH, Mr Robert Douglas, President, Friends of Felton Inc.

KENT, Mr St John, Member, Jimbour Action Group

WHAN, Mr Ian, Committee Member, Friends of Felton Inc.

CHAIR—Welcome back. I trust everybody enjoyed some of the fabulous Oakey sunshine out there during the brief lunch break. I welcome our next group of witnesses, representatives from the Friends of Felton and the Jimbour Action Group. Thank you for joining us today. We have received your submissions as submissions No. 2 and No. 30 respectively. Does either group have any changes it wishes to make to those submissions?

Mr McCreath—We do not have any change to make, but we would like to make a short statement if that is possible.

CHAIR—Certainly. If there are no changes then please proceed with a short opening statement—or others may do so.

Mr Whan—I have a supplementary statement, which I will read to make sure that it is exactly what we intend to say. Your inquiry has received several submissions from pro-mining groups, including the New South Wales state government, the New South Wales Minerals Council, the Australian Petroleum Production and Exploration Association and the Queensland Resources Council. Time and again, these submissions claim that agriculture and mining coexist. Typical of the references to coexistence is the following:

The NSW Government has a strong commitment to the successful coexistence of agriculture and mining. Mining and agriculture have coexisted in NSW for over 200 years. Today there is no reason this coexistence cannot be successful.

Apart from the inappropriateness of a democratically elected state government pitching on behalf of just one sector, the claim of coexistence is not supported by what happens in reality. Agriculture is conducted by real people, known professionally as farmers. These people work on the land and live in communities defined by many things, including the inherent quality of the area's natural resources, distance between households, enterprise diversity, local history and culture, aspirations for family and continuity, belief in due process and fair play and a strong attachment to place.

Where target farms are relatively large, as they are in Central Queensland, for example, coexistence might indeed be possible because the miner can properly compensate everyone directly affected. In some cases, there might be only two or three landholders who would suffer the mine related externalities and, after due process, everyone might feel as if they were no worse off. But, if a large, open cut coalmine were established at Felton, literally hundreds of households would be adversely affected by mine related externalities and it would be impossible to compensate them in any meaningful way. Thus, the issue of coexistence is complex. Every situation is different and, in many cases, mutually beneficial coexistence will not be possible.

Thus, we have a key finding for your inquiry: coexistence between agriculture and mining is not always possible. As a general rule, the more closely settled a rural community is, the more opposition there will be to the entry and establishment of mining.

Offsite pollution caused by mining activity amounts to market failure because regulation is needed to force miners to contain or offset their externalities to a socially acceptable degree. The externalities associated with mining in the Murray-Darling Basin are meant to be addressed via a complex web of regulations. Our problem, however, is that the regulations, including the environmental impact assessment process, are all designed to make it happen. Thus, the miner's clever consultant can always devise a mitigation strategy so that, despite all the counterfactual evidence and legitimate protest, surprise, surprise, the project is found to be socially acceptable and gets the go-ahead. So why is the process so biased?

In its submission, the New South Wales government said that it is obligated under its mining act to 'ensure an appropriate return to the state from mineral resources'. When the government's dominant constituency is a state capital city, with an insatiable appetite for new infrastructure projects, it must be a blessing to feel obligated to license and, subsequently, to tax every mine that wants to start up. We suspect that, if it were not for the royalties that state governments can extract from mineral production, the scrutiny of new proposals would be a lot more critical, balanced and democratic—not to mention more cognisant of Australia's obligation to make meaningful reductions in greenhouse gas emissions.

The fact remains, however, that the public good stemming from mining comes via the collection and subsequent disbursement of royalties by government. In this case, it is difficult to see how a mine at Felton would generate a public good of any consequence because the land that would be mined at Felton was freehold before 1910, thus causing the payment of any royalties to stay with the prevailing landholder. I have referenced section 8 of the Queensland mineral resources act 1998. We presume that the 9,000 hectares of land acquired by New Hope Coal at Acland was also freehold before 1910. If this is indeed the case, we would be interested to know how royalties from New Hope's mine at Acland have been distributed among landholders who owned the land pre New Hope, the Queensland government and New Hope Coal itself.

Notwithstanding the anomalous situation applying to the collection of royalties, prime agricultural precincts in the Murray-Darling Basin need a form of protection that goes beyond the measures that might ideally reside within the EIS process. The reform sought by Friends of Felton is formal land use planning that delivers absolute protection from large-scale mining of farmlands, characterised by relatively high population density and high productive capacity. Thus, a second key point finding and reform that your inquiry might contemplate is that large-scale mining activities should not be attempted in agricultural precincts typified by the Felton Valley. Such a reform would give greater certainty to both farmers and miners.

My summation is based on the fact that mining does not and cannot coexist within particular farming communities. Accordingly, the regulatory system that is meant to control the various market failures associated with mining must include the ability to lend absolute protection to rural communities characterised by such things as relatively high population density, high productive capacity and high environmental importance. These are indeed the characteristics of Felton Valley and they must be preserved for use by incumbent and future generations of

farmers, for the enjoyment of the population at large and for the self-respect of our nation. Thank you, senators.

CHAIR—Thank you, Mr Whan. Would anybody else care to make some opening remarks?

Mr Kent—I come from the Jimbour flood plain, which is further down the Condamine River. Our situation is a little bit different in that the country is predominantly flat and treeless. And, if you imagine that the country is this table, with a telephone book under each side of it, it is gently sloping from the Great Dividing Range to the east of here and on to the Condamine River, which are the headwaters of the Murray-Darling River system.

Our point is that we are not anti development. We are farmers, and that is what we do: we develop something. However, we are anti mining on the flood plain for the simple reason that it has never been demonstrated that that is practical or that after mining the land can be rehabilitated to its former state. That is our simple point. It has never worked before and, under current legislation, it will not work now because there is no precedent set to determine what the country will look like after it has been mined. Current examples of failures are in Central Queensland, the Bowen Basin in the last wet season, and around Mount Isa with the copper mines polluting the rivers there. The Ranger uranium mine has constant problems. The star of the lot is the OK Tedi mine in New Guinea. It has ruined a whole ecosystem. That is our simple point. We are not anti development but we are anti environmental vandalism, and this would be vandalism on a grand scale.

CHAIR—Thank you very much for that. I made this request of the Haystack Road Group earlier: for the benefit of the record and the committee, could you please outline the connectivity between your particular sites and the Murray-Darling system.

Mr McCreath—The Felton Valley is approximately 30 kilometres south-west of Toowoomba. The Hodgson Creek runs through the Felton Valley. It joins the Condamine River 15 kilometres downstream from Felton. The Condamine River then flows on into the Balonne River and off down into the Darling River system. That is where we are in the Murray-Darling system. We are quite close to the headwaters.

Mr Kent—The Jimbour plain is north of Dalby. We are only one plain in a series of plains from Dalby to Chinchilla that are drained by three creek systems. The rest of it runs overland into the Condamine River.

CHAIR—The proponents of the Felton coal project have already outlined a fairly detailed series of stages to their development, as we saw this morning. What do you understand to be the water requirements of that development?

Mrs Green—Our understanding, based on the initial advice statement from Ambre Energy, is that stage 1 of the project, which is 800,000 tonnes of coal, would require 1,000 megalitres of water. Stage 2 is an expansion of the coalmining from between two million to three million tonnes per annum. They are very coy about their water requirements there. But when asked about them at a meeting in Felton, they said, ‘You could assume it was in the order 3,000 to 4,000 megalitres a year.’ We have asked where that water will come from. The water at Felton is allocated completely to landholders. You would have seen in the submission, as an attachment, a

map detailing the number of bores in the area. There are 586 registered water bores within a 10 kilometre radius of the mine site.

There is no free water in that area and they have indicated at this stage that they are investigating bringing in the coal seam gas water from the Dalby area, piping it 80 kilometres to Felton. They had an alternative, which was to come from Ipswich. We asked, 'What water from Ipswich?' They could not tell us, but it would be piped and pumped up over the range. The other option was from Toowoomba and they indicated that they were talking to Toowoomba Regional Council. We have made inquiries of Toowoomba Regional Council as to the nature of the discussions and they outright deny that they are having discussions with Ambre Energy regarding sourcing that water.

CHAIR—With 586 bores in the local area you obviously would have some concerns not just about the surface water flows but about the potential impact of mining operations on groundwater.

Mrs Green—Absolutely. Ambre Energy are very coy about releasing their information. In fact, they are not releasing their information at all about the impact revealed by their studies. They have indicated that they have intersected water in the coal seams. That of course is a great concern because anyone who is currently drawing water from those by way of a windmill to water stock might be quite happy with 200 gallons an hour to keep their cattle enterprise running. But if that is gone it is gone. Ambre have already indicated that they have intersected water. They plan to store that in turkey nest dams on the site and reuse it, which makes it unusable for anyone else in the area.

Mr McCreath—With regard to water in the Felton project, it is important to consider that there are a couple of different aspects here. One aspect is the threat to underground water from the mining pits. We are very concerned, as Vicki has said, that digging a mining pit in this area will lead to potential drainage of our local bores and contamination. The other aspect is the water demand for the company's petrochemical plant. The company intends to mine this coal and then put it through a petrochemical plant to produce liquid fuel. That is a process which requires a large amount of water. We attached a slide which the company provided us with, with a flow chart of their process. There are no figures there for the amount of water required, but there certainly are figures with regard to CO₂. I am sure we will come to that in a minute. If they are going to start off with a demand of 1,000 megalitres for stage 1 then the multiplication factor for the project's full-scale capacity would be 16 times. That is a usage of 16,000 megalitres a year. Just by means of comparison, the city of Toowoomba uses a bit less than 6,000 megalitres a year, and that is a city of 100,000 people. So it is a very significant demand on water.

CHAIR—This open cut mine and the processing facilities and petrochemical plant that you speak of are all within about a 15-kilometre radius of Hodgson Creek?

Mr McCreath—If you look at the initial advice statement that the company has put out, there is a map of their planned layout. They plan to build a dam right next to Hodgson Creek with a 30-metre high levee bank.

Mrs Green—It is 150 metres from Hodgson Creek.

Mr McCreath—The petrochemical plant would be alongside that, with the turkey nest dams, and the mine pits would go from there. So there are major concerns on a lot of fronts.

CHAIR—And this is sloping land that is very clearly a catchment zone for Hodgson Creek.

Mr McCreath—The land next to the creek is fairly flat, but as you go back you go up the slope a bit and into the ridges. Perhaps they can build a levee bank 30 metres high to protect the site from flooding from the creek, but what are they going to do about the water that will come charging down the hills behind? We had an instance in the summer last year where there was huge rainfall over a weekend and the banks of a lot of local dams were broken by the rush of water coming down the hill. The company have not really explained how they would deal with an event like that.

Mrs Green—The other fact that is quite significant when we are talking about water is that the area that they intend to mine is the hilltops. They say that they are not going to affect production in the valley because they are not mining on the valley floor. But it is well known and well documented that those basaltic hilltops are the recharge areas for the aquifers in the bottom of the valley. If you remove those hills where the coal is then suddenly you have part of the system that does not work anymore. You do not have anywhere where the water will infiltrate and underpin the productivity of the flats. There is a grave concern about the cycling of water in that system when it is so severely altered.

CHAIR—Thank you. We will proceed to other questions.

Senator WILLIAMS—Mrs Green, you are saying a mine in the Felton Valley would require 1,000 to 2,000 megalitres of water. If they were to bring the water from Dalby, it would be the by-product of a coal seam and may well be salty.

Mrs Green—Yes.

Senator WILLIAMS—In your opinion, what are they going to do for water if they cannot bring salty water from there? Toowoomba has obviously got a water shortage. Do you think they are just going to build a large dam and look to the catchment for the water for their project?

Mrs Green—It just will not happen. I very much doubt that you would get the water they would require for their operation from simply building a dam. On the other side, I guess that is completely banned and prohibited under an agricultural system, so the fact that a mine could come in and do that seems absolutely ludicrous from where we sit. We have talked to them about whether coal seam gas would be treated before it was brought to Felton, and that is the way they are talking at the moment. I guess one of the big stumbling points we are seeing with this project is where they are going to get their water because it is a major component of their project.

Senator WILLIAMS—Mr McCreath, has Ambre Energy sat down with your organisation and discussed the plans? Have you had an open meeting with them?

Mr McCreath—There were a few meetings early on in the process when they first arrived. I honestly think they thought we would welcome them with open arms. They thought we would be delighted that they would come to our valley and bring us a big industrial plant. They got quite a

surprise when they discovered that was not the case. These mining companies have a lot of money and they can employ PR consultants. Their plan is very dirty, it is very filthy and it promises huge impacts in a lot of areas. So they really have to try and dress it up as something that it is not. They call it a clean coal plant when there are no plans for carbon capture and storage. They say they are liaising with the community. They have set up a community liaison group, which has had a couple of meetings, but they have refused to tell us who is on the committee because they have decided to keep it confidential. What a farce that is. How do we know who to talk to if they will not tell us who is on their committee?

Senator WILLIAMS—Have they approached the landowners there to purchase land?

Mr McCreath—They have bought one 96-hectare block of land. The full scale of their project would be 2,800 hectares. They have applied for a mining lease for the first stage, which is approximately 355 hectares. So they have purchased 96 hectares at this stage.

Senator WILLIAMS—Going on the statistics in your submission, the Felton Valley is obviously a big producer of food—summer crops, winter crops, hay, 4.3 million litres of milk, 320 tonnes of onions, 150 tonnes of organic mixed vegetables and four million lettuce heads. That area is obviously a huge producer of food.

Mr McCreath—That figure for lettuces is just within a 10-k radius of Felton. If you take the area from Felton to Toowoomba, there are eight lettuce producers growing 750,000 lettuces every week in the season, plus 60,000 bunches of celery and 60,000 cauliflowers. They employ 400 people and I think they have got a gross turnover of over \$23 million. So that is a significant industry that will be under threat if this thing is allowed to go ahead because it is in the direct firing line of prevailing winds that blow through the autumn and winter.

Senator WILLIAMS—Has your group done any research on dust from open cut coal mines and the effect that may have not only on pastures but also on horticultural industries? Have you done any research or dived into that area to see what the effect of that would be?

Mr McCreath—Yes, we have done research. We have spoken to people in the Hunter Valley. There are obviously big concerns there and not just about the effects on agriculture but also about the effects on people's health. I think there is talk of a class action in the Hunter Valley, in Singleton, New South Wales, because of the health impacts of mining on people. We are very concerned about that.

Senator WILLIAMS—Surely your state EPA has regulations when it comes to dust from a coalmine?

Mr McCreath—It has regulations. I think there are a few people in the audience here from Acland. If you ask them about that I think you will hear that the EPA is up there quite a lot. They get a phone call and nothing much seems to happen. I think the mines tend to do their own monitoring. A common complaint is that the results tends to be averaged over a monthly period, so you can have a couple of really windy days with terrible dust levels and then a few calm days after that and, as long as the average is under the maximum limit, the EPA does nothing. There have to be changes there, I would say.

Senator McEWEN—Mr Whan, you mentioned in your evidence that large-scale mining should not be allowed in the Felton Valley. Does that mean you believe that smaller scale mining or some level of mining is okay?

Mr Whan—Mining is a multitude of things. We already have gravel mining and things like that. We are at pains to say that we are not antidevelopment. We are not retarded in terms of all sorts of development, but it really is the scale of this mine that scares us most. We are absolutely convinced that, were it to go ahead as proposed, it would create an enormous amount of externalities which would have very unfortunate effects for the hundreds of people who live within 12 kilometres of the mine site. I do draw attention to the large scale. It is part of Friends of Felton being fair about this whole thing. We know that Australia is a progressive country et cetera, but this mine definitely crosses the line as far as its acceptability to the community in which we live.

Senator McEWEN—The community does live side by side with some kinds of mining though. You mentioned gravel mining.

Mr Whan—That is minuscule by comparison. That sort of mining is necessary just to support the community itself and the city of Toowoomba. There is no mine of the scale proposed anywhere around here. Our point is that it is just totally incompatible with this community. This community is densely populated. It is close to Toowoomba, which is very much a lifestyle city. It is growing very rapidly. It is seen as a very desirable place to live. While we still have the chance to make a choice on this we should make the right choice.

Senator McEWEN—Maybe Mrs Green or Mr McCreath could answer this one. In your discussions with Ambre, what benefits have they held out to the community were the mine and the petrochemical plant and power station to go ahead? What do they say to you will be the benefit to the community? What is your answer to that?

Mr McCreath—They are promising a jobs boom. They say there would be 600 jobs involved in construction, which is significant. But they say that would be for 15 months. After that, they say there would be 120 ongoing jobs. Our conclusion from that is that there would be no net gain in employment because so many people would be forced off the land and farms they are working presently. I realise that when mining development goes into sparsely populated areas often there is a huge boom in jobs, but I do not think that applies in areas such as Felton.

They are promising all sorts of things, but we are quite cynical about their promises because we only have to look at what has happened at Acland. You were at Acland this morning, and I am sure I do not need to say any more about that. You have probably made up your own minds about the situation there. We are some distance from the Acland mine. Talk to people in Oakey about what boom there has been. One of the consequences of the Acland mine was that the saleyards shut down. There used to be a weekly livestock sale here and a large number of people came to town and brought their business to town. But since the Acland mine has bought out so many farmers, the saleyards have shut down. That has had a big impact on the town, even on the local tyre-fitting business. You would think they would get a bit of business from a mining operation, but the mining company gets all its tyres and supplies from Ipswich and Brisbane. The mining company says it would bring a boom to Pittsworth, Cambooya and Felton, but we are very cynical about that. We do not believe them.

Mrs Green—I have a comment there, if I may. Ambre Energy distributed a pamphlet indicating that they had already spent \$800,000 in local communities. They sponsored the Pittsworth Show. That is fantastic for the Pittsworth Show committee, who every year have to pull their hair out to get a sponsor to make their show happen. Ambre Energy just came and handed over a chequebook, but that is not real because at the end of the day, if mining families come into these small towns, they will generally come in with big pay packets. A lot of people live in small towns because they can afford to live in small towns. Rentals are lower. It is a nice place to bring up your kids. You do not have the issues of a centre even the size of Toowoomba.

There is a great concern that, if mining comes to Felton, there will be a discrepancy in incomes between families that would typically live in a town like, say, Clifton and mining families who will live there. It will not create a boon to those communities; it will actually create a fair amount of angst and conflict within those communities. We see towns like Millmerran whose average weekly rental is \$350 plus. That wipes out a lot of families who would typically live and be happy to live in those rural communities. It changes the dynamics completely.

Senator LUDLAM—Thanks very much for your evidence and for showing us around the region this morning. Can we start with the community liaison committee which meets in secret. Maybe I misheard that. Do we know anybody who is on that committee or how often it meets?

Mr McCreath—I think it would be surprising if we did not know who was on it. The point really was that the mining company refused to tell us who was on it, which seems a very strange way to run a community liaison group. Of course we have a pretty good idea who is on it, but it took a little while, a bit of asking around. But the people who are on it are sworn to secrecy. They had to sign a confidentiality document to go on it, which just makes the whole process a farce.

Senator LUDLAM—I am not sure I have ever heard of a community liaison committee that operated that way before. Does it have a timetable? Will it provide anything to anybody else, or is it really just for them?

Mr McCreath—I am not sure. I think perhaps they have been told to do something like this by the state government and they are just going through the motions. That is my impression.

Mrs Green—To tick off the boxes. ‘We have liaised with the community.’

Senator LUDLAM—I would not call that box ticked. I want to ask a little bit about rehabilitation. The New South Wales Minerals Council said yesterday—and I am sure we will hear something similar from representatives later this afternoon—that mining is a temporary land use, that it occupies a very small percentage of the landscape and that after mining they rehabilitate and put everything back and then everything is great. What is your experience, either in your research or through direct experience, of how that works?

Mrs Green—Our understanding is that the soil types that exist at Felton cannot be rehabilitated simply by putting the soil back. The fact of the matter is that they are completely removing a hill. The topsoil on that is very complex and can vary every 15 centimetres. They have talked about taking the soil off, stockpiling it and returning it in layers, as it was when they removed it. Evidence suggests that as soon as you remove that soil it will lose its structure. It

will lose its inherent nature, so when it is put back it will not return immediately. It will take significant years, if it happens at all.

Mr McCreath—Another area of interest at Felton is that the company planned to put the waste from the petrochemical plant back in the hole first before scattering the topsoil on top. The coal at Felton is very high in ash. The company say they can mine it at 35 per cent ash. In the early days they told us it was 50 per cent ash. So whatever figure you take you can imagine that a huge amount of waste would come back out of that petrochemical plant which they would then tip in the hole and scatter the topsoil on. Goodness knows what sorts of toxins and contaminants would be in that waste which would then be liable to leak down through the basalt and into the underground aquifers.

Senator LUDLAM—So you have not been made aware of what sorts of contaminants would be present?

Mr McCreath—No, certainly not.

Senator LUDLAM—Maybe the secret little community liaison group knows!

Mrs Green—I think you only have to look at the evidence from other areas—the heavy metals contained within coal are well documented. Certainly, for example, my naturopath says it is going to be horrendous for human health. Coal is underground for a reason and that is where it should stay because of the nature of the product. I would like to reference something else: the voluntary IAS for a controlled action project, and the two do not actually mesh, by the way. This is a document that has been released by Ambre Energy, which I am sure you were sent with the submission. The very last statement says, ‘Secondly, the development of the project has the potential to produce rehabilitated land forms with much lower land suitability criteria than the present criteria.’ So they are openly stating that they do not expect to be able to—even though on the one hand they say that they will rehabilitate the land to better than current land standards—

Senator LUDLAM—They will improve the land.

Mrs Green—Yes, they claim that they will improve the land. But they document in their initial advice statement that it is likely that this will not happen.

Senator LUDLAM—You also mentioned in your opening statement that the water in the valley is fully allocated. How is that assessed? What sort of process have you gone through with the regulators to assess that no further water allocations or licences would be granted here for farming?

Mrs Green—It is widely recognised within the agricultural community that there is no allocation available for irrigation or intensive agriculture.

Senator LUDLAM—Was it over allocated and then wound back? We heard yesterday that they actually cut the quotas on the Liverpool Plains quite dramatically eight or so years ago. Is that what occurred here?

Mr McCreath—They are continually cutting back the allocations. Farmers are on a percentage of their allocation and that continues to be cut back.

Mrs Green—But certainly you are not able to drill a new bore for the purpose of intensive livestock or irrigation production.

Senator LUDLAM—Is there anything in the Queensland mining act that interacts or interfaces with that sort of allocation planning that would force them to buy water allocations off farmers or do those systems not mesh?

Mr McCreath—I am not sure of the detail but very much the impression we get in this whole process is that there is one rule for mining and one rule for everybody else. At the very thought of building a very large turkey nest dam next to Hodgson Creek you would be laughed out of court very quickly if you were a farmer wanting to do that, but for a mining company the rules are different.

Senator LUDLAM—The last thing I want to know, and which I guess is on everybody's mind, is what would you have us do? What are you proposing or what are you recommending that this committee produce or recommend?

Mr McCreath—We would like you to produce a report which calls for legislation to protect prime farmland, to protect areas of high environmental importance and to protect areas with large numbers of people. It is as simple as that.

Senator LUDLAM—Are you concerned that the planning processes or strategic land-use planning processes under way are lagging behind the time lines that the company is on for getting into production?

Mr McCreath—We do not know exactly what the timeline is. The state government says they are looking at the issue of protecting prime farmland. We do not know what sort of scheme they are going to come up with, and we do not know what timescale they are on. So of course it is a concern. But there are lots of hurdles for the company to get through before they get permission for this thing so we will be fighting all the way.

Senator LUDLAM—Thank you very much for your evidence.

Mr Whan—I would like to add something. I guess what everyone would like is greater certainty. So it would be useful if we could have some land-use planning which would quarantine particular areas and stop the encroachment by would-be miners. That would save everybody a lot of angst. But as far as this particular project goes now, it is already into the EIS process and ostensibly it can only be stopped by some failure within that process. That would mean a failure to be given an environmental authority. That could happen, but it has not happened a lot in the past.

As I said in my spoken submission, we are cynical about the underlying motives and the process. An EIS is often just a way of finding a solution rather than looking at the absolute barriers that might exist within a particular proposal. So we remain hopeful that such a barrier will be found. This is a very stressful period of tension and we will wait and see how it pans out.

But we intend to fight this every step of the way. We are going to employ our own consultants to raise the counterargument.

Senator LUDLAM—Thank you very much for everything that you are doing and for coming here this afternoon.

CHAIR—Senator Ludlum touched on the level of engagement and consultation of the companies involved. Perhaps some of that is reflected in the fact that during two days worth of hearings we will only hear from one company later today. None of the other energy or resource companies involved have actually fronted up to give evidence like the community groups have. I wanted to touch on state government consultation and engagement with you. Equally, we have unfortunately not heard yet from either the New South Wales government or the Queensland government in any of these hearings. What level of engagement have you as a community enjoyed from the state government on these matters?

Mr McCreath—It is pretty hard to get a reply to a letter. You have to wait a very long time and when the letter comes it does not say very much. We have had a lot of those experiences. So we have taken different approaches to try and get publicity and to try and get the public on our side. If you start to make a bit of noise and jump around, then people tend to pay a bit more attention. The formal process was not really helping us very much. The Queensland government always say that there is an EIS process and it has to take its course. They always use words like ‘rigorous’ and ‘robust’ and so forth. We asked the Queensland EPA how many mining lease applications had been rejected as a result of an EIS and they came up with four ever—two were in national parks, one was on the Atherton Tablelands affecting a water supply and one was east of Bundaberg that had problems with groundwater. East of Bundaberg is in the surf I think, so it is no wonder there were problems with groundwater! The EIS process is really just a mechanism to legitimise environmental and social impact and harm. That is all it is.

Mrs Green—We were invited to attend a meeting at Felton to discuss the social impact assessment component of the environmental impact statement. Ambre Energy insisted on being there. As a community—and there were over 100 people at that meeting—we were supposed to give evidence to Worley Parsons, the consultants who have been employed to do the independent social impact assessment, in front of Ambre Energy. Ambre Energy stood up after an hour and a half at the meeting and said, ‘We’ve got enough information thanks.’ I then stood up and said, ‘Excuse me, who are you?’ knowing full well that the person was Jason Russell, the geologist from Ambre Energy. I said, ‘Who do you work for?’ and he said, ‘Ambre Energy.’ I said, ‘Who’s doing the social impact assessment?’ and he said, ‘Worley Parsons.’ I said, ‘What right have you to tell us that Worley Parsons have enough information?’ and he said, ‘I’ve been reading the notes they’ve been taking.’ That left the community feeling completely abandoned by the process. We were told by the EPA that it was okay; it was up to Ambre Energy to appoint the consultants that they felt were appropriate. So we have little faith in the EIS process based on that social impact assessment meeting where we were told by the mining company that there was enough information thanks.

Senator LUDLAM—You have written letters to state ministers and the Premier and so on. Have any of them actually come out and met with you or seen the impact on the ground?

Mr McCreath—Not from the state government. We have invited them often enough, but no. They try to avoid getting put on the spot. They say, ‘We’ve got this EIS process and it has to take its course.’ They avoid the issue as much as possible.

CHAIR—You indicate on page 6 of your submission that the Felton Valley includes two endangered ecosystems, three endangered species and six vulnerable species which are listed under the Commonwealth EPBC Act. What are those species and what advice or action have you tried to take to ensure that any development has to comply with that Commonwealth legislation as well?

Mrs Green—It is interesting. Probably the most important is an endangered ecosystem of Queensland blue grass. The hardest thing about this project is that there have been four initial advice statements. This is the second one. It is the glossy one. The first one came out as just something by email. This is the second one. The third one did not actually get given to us. We managed to find one off the back of a truck somewhere. This is the fourth one that has actually gone to the EPA. Each edition has got more vague. The full-scale project in editions 1 and 2 shows the mine going straight through this endangered ecosystem. Their application to the federal government for a controlled action under the EPBC Act only details stage 1 and 2 of the project, which coincidentally stop just short of the endangered Queensland blue grass ecosystem. They say that these stages are viable in their own right and that they will not progress to stages 3 and 4 for another 15 years, so they will apply it again then. But we know from the initial statement that the mine project goes straight through that ecosystem. They are mapped areas. Once again, it leaves us with little faith in the honesty and the integrity of the company that is proposing this mine.

CHAIR—So your application was made and the application, limited though it was to stages 1 in stage 2, was found not to be a controlled action, I assume?

Mrs Green—No. They requested for it to be a controlled action. The mining company said, ‘We would like this project to be a controlled action.’ So, yes, it is a controlled action. So, yes, there is a federal input into this project.

CHAIR—I assume as a controlled action that it has since received ministerial approval. Do you know whether that was conditional or has not been received as yet?

Mr McCreath—No, we have no word on that yet.

CHAIR—It has not been received yet?

Mr McCreath—There certainly has not been a decision made. There is a bilateral agreement with the Queensland government, so I think the Queensland government does the work and then sends it to the federal environment minister for approval. That has not been done yet.

Mrs Green—Just regarding additional species, one that is very significant is a grassland earless dragon. It was believed extinct but was found around the Mount Tyson area. I believe you went through Mount Tyson this morning. It was found about 10 years ago. There were definite sightings in Felton Valley this year—in fact, just last week—by one of the members of the audience. This is in our Valley, definitely. We certainly have a number of other plant species,

such as picrus, which are known in the area. Whether they are actually on the site I personally do not know, but it is highly likely given that they are on our boundary only 2½ kilometres away.

CHAIR—Thank you. I am sure those issues of Commonwealth approval are matters that members of the committee will pursue with the relevant minister and department in upcoming estimates hearings and elsewhere. Mr Kent, I will just touch briefly on your part of the world. I understand from your submission that the local community and landholders have taken steps in recent times to reduce their impact on the land, particularly erosion and the like from water overflows, in your region. Could you just outline those for a moment, please.

Mr Kent—Supposedly—and I do not know who works these things out—we are meant to be world leaders in what is considered to be zero-till and control traffic farming in our region. That was probably brought on by the fact that the soils were highly eroded when we had these overland flow events. In the old, conventional farming days they were quite frequent because the soil structure had been destroyed through subsurface compaction and whatnot. Water ran a lot after the high-intensity storms that we get in this part of the world and there were quite frequent flood events with a lot of damage. In the last 20 years we have basically eliminated a lot of that. It has been through changing farming technology but also a complete change in community attitudes. We have had things like the Jimbour flood plain project in the nineties, which won national awards and things. It was an integrated flood plain management project. They started at the top and worked their way to the bottom. Everything was integrated, so if a problem started 10 kilometres away we fixed it there and not when it was causing the real damage. It was highly successful. We were also very successful in getting the councils—there used to be two of them—in our region to work with us and change road design and all those sorts of things. There has been significant work done there. Also, as a result of all that work, yields and profitability have increased.

CHAIR—What risks do you see to the work that you have done if there is erosion of the flood plain from the potential construction of new structures or from changes to the landscape that could result from mining activity?

Mr Kent—The country is not flat, but it is flat in the way that it slopes towards the river. So any change, even a very subtle change, such as a set of wheel tracks running down the hill at an angle or, as was the case in the old days, fence lines and things like that, can change the direction of the flow of the water. When the direction is changed, it usually ends up being concentrated. When it gets concentrated, it flows quickly and that is when the damage happens. If you put a strip mine across this flood plain, you have to build a bank to dig a hole. I do not know how you get around that one. You would be diverting water on a huge scale compared to what is happening now with the roads and things that we have fixed.

The other thing is that, when you rehabilitate that site, you will still have a hole. You might have taken out five metres or 10 metres of coal or whatever, but is it going to go back to the way it was? I do not think so. They have never been able to demonstrate that they can achieve that. Likewise, it has been floated that they will mine it underground. They will longwall mine it. The Central Queensland experience will tell you that that is not successful either. Because of the slumping effect that occurs as they go through, the roof collapses, the ground slumps down, and you have got a hole again. You will have taken something that is a billiard table and turned it into hills and valleys, which we currently do not have, and created significant erosion problems.

Because of the nature of our soils, if water flows at more than 0.3 metres a second—to be technical—it dissolves and washes away, straight into the river and all the way to Adelaide, if you believe the rhetoric.

Senator LUDLAM—Earlier, one of you mentioned the DME plant sitting behind a great big bund or a bank. Is it intended that that plant will be sited below the maximum flood level of these flood plains? Is that what the levee bank is for?

Mr McCreath—The reason the company gave for building the levee bank was to protect the site from flooding. You can draw your own conclusion from that. If it is to be built above the flood level, they would not have needed to build the bank, would they?

Senator LUDLAM—Do you have any information or research as to what would happen if a DME plant were to flood?

Mr McCreath—A petrochemical plant and heaps of water—use your imagination. It does not sound too good to me. There would be major concerns, would there not? And not to mention what would happen if their storage dam, with whatever nasties were in it, burst its banks and ran off down into the Hodgson Creek and then off down into the Darling River.

Senator LUDLAM—I guess that was the direction of the question: do we have to use our imaginations, or has the company provided some information about what their contingencies are?

Mr McCreath—The company has provided very little information. I think appendix 1 was their initial advice statement for the first stage of their project. There is very little information in there. Surely to goodness, they will give more information in their environmental impact statement, but we wait to see what that is. Anyone who looks at that site can see that there would be major problems in building a safe plant there.

CHAIR—Gentlemen and Mrs Green, thank you very much for your time and evidence today. Again, on behalf of the members of the committee, I want to place on record our thanks for your assistance, particularly with this morning's excursions to some of the sites in question so that we could have a far better appreciation of the landscape that we are talking about here and the potential issues that the communities face or, indeed, in some instances, the issues that they are already facing. We very much appreciate the time that you have all put in to campaigning and the information that you have provided to us today. Thank you very much.

Mr McCreath—We would like to thank the committee for coming. We appreciate it very much that you have actually come here to have a look for yourselves. On behalf of our community, thank you very much.

CHAIR—Thank you, Mr McCreath.

[3.11 pm]

HARCH, Father Gary, Vice-Chair, Queensland Murray-Darling Committee Incorporated

PENTON, Mr Geoff, Chief Executive Officer, Queensland Murray-Darling Committee Incorporated

TODD, Mrs Elizabeth, Policy and Planning Project Support Officer, Queensland Murray-Darling Committee Incorporated

CHAIR—I welcome witnesses from the Queensland Murray-Darling Committee Incorporated. Thank you very much for joining us today. We have received your submission, which we have marked as submission No. 28. We have also received some further information provided today which I believe is an updated or revised submission, is that correct?

Mr Penton—Yes, that is correct.

CHAIR—Is there anything else that you wish to highlight or any other additional information you wish to provide or to change?

Mrs Todd—In the submission we have included pages 13 and 14, which include detail on the institutional assets and Aboriginal and cultural assets. We have made amendments to some of the maps and information provided in the mapping area. There are a couple of additional maps as well.

CHAIR—Thank you. I invite one of you to make some opening remarks.

Father Harch—The Queensland Murray-Darling Committee is a community committee. It is community based. In this part of the world we look after a large slab of the area around the Queensland Murray-Darling—from Chinchilla to St George in one section and around Texas, Stanthorpe, Warwick and out to the border rivers in the other. We have community people from a wide range of industries—there are catchment management associations; there are Indigenous people; there is local government, Landcare and rural industries. Those people come together in this community based organisation and their role is natural resource management and improving natural resource management.

We are funded by both the Commonwealth and the state governments to help make a difference on the resources here. We support and manage a whole variety of programs. We have spent years working with the community in developing plans that have been approved by the Commonwealth and state governments for natural resource management. We have recently updated those, particularly on the impact of mining, and got community input.

At the present time we are responsible for about one-third of the land area around the Queensland Murray-Darling. We have people with sub catchment planning. We have a huge area of people involved with us. So we believe we are a good voice for the big picture. You heard just before about a small part. We look at the broader context across the whole group. You were

asking about underground and overland flow waters. They are areas of particular concern to us. We have a voice for the whole natural resource management biodiversity, which you have asked about in your inquiry, and all the environmental impacts across the region.

Mr Penton—I will just add to Gary's opening statement by identifying some of our key issues. As an organisation we are not opposed to mining; we are looking for opportunities to avoid the impact of the mining and energy sector—and if those impacts cannot be avoided then how can they be minimised or rehabilitated. So that is the position we are coming from. However our main concern is one of the cumulative impact. As Garry said, we are not so much focused on any one individual site—as important as those individual sites are. What we are focused on is what the overall footprint of the industry may be. In recent years that footprint has had the potential to grow dramatically from some of the mapping we have provided to you.

I guess we are also particularly interested in some of the issues to do with the transparency of the industry, particularly in the area of monitoring and the public disclosure of monitoring information right from the start—from some of the bore information, the bore logs, right through to water quality monitoring and other monitoring information—to be able to have a clearer picture as to what the real impacts may or may not be. We are particularly concerned, as I said, about the cumulative impacts and the potential for us to have discharge thresholds for some of our streams to be able to potentially cap what those impacts may be. So that overall cumulative picture is where we are coming from.

CHAIR—Thank you. I note that in your submission you have provided some details showing the Queensland headwaters of the basin. To what extent is mining exploration and mining activity within that region proceeding and what growth has your association observed? How do you view those applications and activities?

Mr Penton—Certainly at the exploration stage the progress of exploration permits for both coal and coal seam gas have mushroomed over the past 18 months. That has dropped off a little in the last six months but for the 12 months prior the growth at the exploration stage has been quite phenomenal—it is in the order of millions of hectares of exploration permits. I think if you go to page 10 of the submission you will see some of the mapping information. You can see the progress from June 2008 to December 2008 and September 2009. There was a jump of more than a million hectares of applications just for coal alone from that June to December to September period. Overall those figures demonstrate a fairly large growth in the mining and energy sector's interest in this part of the world.

CHAIR—And what particular threats do mining activities in the headland areas in the Murray-Darling Basin pose which perhaps those activities would not pose elsewhere?

Mr Penton—What this set of maps tries to demonstrate is the potential impact that the sector could have—for example, the impact of mining on good quality agricultural land, as you spoke a fair bit about with the last witnesses. There is a range of other issues, though, from the impact of open cut mining on groundwater and surface water, the impact on biodiversity, the further loss of what is already a very fragmented set of remnant vegetation, the potential impact on our rivers and so on. There is a range of those impacts that are documented throughout our mapping and our submission.

I guess we would particularly like to point out a few of those which might relate specifically to the terms of reference, and what the Commonwealth government might be able to do about those through the Murray-Darling water plan. A common practice in Queensland when it comes to coalmining particularly is to divert streams to get to an entire resource. So once a licence to operate has been issued a mining company is able to—or required to, in fact—extract that entire coal resource. If there are rivers in the road then quite often they are moved. In the Fitzroy Basin, to our north, there are over 220 of those river diversions already in place. We already have the first one of those in the Queensland Murray-Darling Basin, but only one so far.

So I guess a key issue for us, and what some of this mapping demonstrates, is the potential for the industry to cover a large area of stream. If you go to page 20 in your maps, that demonstrates that, of our larger order streams—our bigger rivers, if you like, which are shown at the bottom left-hand corner of your maps, where it says ‘stream order 5 and 6’—there are over 600 kilometres of coal exploration permits sitting over the top of those major streams. Obviously not all of that is going to be mined, but even if a percentage of that is mined then it opens up the potential for river diversions in some of our major order streams, and right down to the small creeks. As I said, it is currently common practice in Queensland to allow for streams to be physically shifted to get to a coal resource.

An area of potential compromise with the industry is to look at establishing buffer zones for our major order streams and not to allow those areas to be disturbed. From a water planning point of view, that also has the potential to continue to allow irrigated agriculture and water resource related industries in those areas. From a Murray-Darling water planning point of view, the maintenance of overland and in-stream flows on our flood plains and streams is probably one of our priority areas.

Father Harch—One of the things we give significant funding to at the present time is fencing off rivers and streams to improve the health of the riverine area. We have been spending \$1 million of Commonwealth money on fencing off and not allowing things to get into the river, yet the mining industry can just go straight in and cut into the river. It seems to us that there is a differentiation in that one industry can do it and other industries cannot. The federal government is actually spending money to prevent this sort of damage and yet the mining industry can come in and do it.

CHAIR—With regard to groundwater flows rather than surface water flows, how well does the association believe that the community and governments, and regulators in particular, understand the impact of mining on those groundwater flows? What threats do you see in that regard?

Mr Penton—There has been a lot of work done over the last 15 years or more on understanding the groundwater resources of the region, particularly on the eastern downs and the Great Artesian Basin. There are two distinct types of water resource in the region. There are the shallower aquifers, which are more predominant to the east and on the eastern downs, and then there is the Great Artesian Basin, or GAB, water. About 95 per cent of the stored water in our reservoirs in this region is used for irrigated agriculture. Almost the entire rest of the region is reliant on groundwater in one form or another. Stock and domestic needs and town water supply are reliant on groundwater, and predominantly GAB or subartesian water. Quite limited information has been provided by a number of the companies to date in terms of registering bore

logs and so forth. There are some maps towards the back of our submission, on pages 44 and 45, and that is some of the mapping we have been able to add since we made the initial submission. The mapping on page 45 documents where most of the groundwater aquifers are. The production aquifers that are used for agriculture on the eastern Darling Downs are the red hatched area. Although all the red hatching there might look a bit confusing, overall what it shows is that the groundwater aquifers pretty much follow where that darker brown is. That darker brown is our alluvial flood plains. If you have mining activity that is going to cut into those alluvial flood plains, then almost invariably you will cut into a groundwater aquifer in one of those areas. The strip right through the guts of that brown is the Condamine alluvial and that is one of the main irrigation aquifers—the Condamine flood plain aquifer—for irrigated agriculture in this area.

I guess this mapping demonstrates that, if you put the granted exploration permits over the top of that particular map, you get over 800,000 hectares of granted coal permits sitting on top of one of those alluvial flood plains. If you add the further applications that are in the pipeline, it is over 800,000 hectares more. So there are about 1.7 million hectares of coal permits that have the potential to impact on those alluvial flood plains, which is where our aquifers are.

CHAIR—I will go to other questions and come back if we have time.

Senator WILLIAMS—Mr Penton, while we are on the underground aquifers, has your association done any study or research on how deep the aquifers are? With an open cut coal mine or even with subsidence underground, do you know if the mine actually cuts through the aquifers in most cases?

Mr Penton—It is actually quite hard to tell. We have a quite limited amount of current coal activity in the region. One of the maps towards the front of our submission identifies how much current coalmining there is, and it is in the order of 13,000 to 17,000 hectares. So it is currently quite limited. The information we have about the depth of coal and the potential impact that might have on groundwater is relatively anecdotal. We do have information from the Great Artesian Basin strategic plan and from a number of the management plans that exist for these groundwater aquifers. We do know that here in the Eastern Downs there is a particular seam called the Walloon coal measures and those Walloon coal measures sit on top of the sandstones which are the major Great Artesian Basin aquifers. The Walloon coal measures are actually one of the Great Artesian Basin management units—it is not separate. So if you are taking water out for coal seam gas extraction on the Eastern Downs then you are extracting Great Artesian Basin water. It is not a separate system. That much we do know.

Senator WILLIAMS—You said earlier on about the Fitzroy Valley having some 200 creeks and rivers diverted for mine sites. Is that correct?

Mr Penton—Yes. It was over 220.

Senator WILLIAMS—Do you know what the effect was on those river systems, water systems and catchments when those diversions were carried out?

Mr Penton—A number of studies have been done just recently in the Fitzroy following some floods that occurred last November and again in January-February earlier this year. A number of those impacts are of physical damage because of the restrictions of the flood plains. There are a

number of areas where, in order to secure mine sites, a company built levy banks around the mines to reduce the flood potential. As the floods came down, that reduced the width of the flood plain. So, instead of the flood breaking out of a river and spreading out over two, three, four or up to seven kilometres in some places, it is then restricted down to two or three kilometres wide. So that volume of water now does not have a flood plain to flood across; it is restricted. In a number of cases those levy banks did not hold in the Fitzroy and those mines were flooded. There are some fairly spectacular photos of draglines being flooded and so forth. That had a couple of impacts. It was obviously pretty devastating for those mining operations, but it also meant that several of those mining operations were given approval by the state government to pump their mines back to being dry again. That has created a range of issues in terms of water quality in the Fitzroy River.

A report has recently been finalised which looks at the cumulative impact of all of those mining operations on the water quality in the Fitzroy. Earlier this year there were a number of fairly significant problems generated because of those floods and those mines being flooded and the cumulative discharge that occurred. Rockhampton hospital needed to close down or restrict some of their physical operations. They needed to buy in water to run their autoclaves and dialysis machines, because they could not use the town water supply anymore. In fact, the coal fired power station had to buy water, because they could not even use the water for their cooling towers. That has all been documented in a state government report that is available.

Our overall picture is that we do not want to see those similar cumulative effects happen in this part of the world. We have quite small areas of coalmining to date. Of the coal seam gas mining that exists and is possible over the coming years, although there are some significant issues there as well, the overall footprint of coal seam gas is potentially much more manageable than it is of that for coal. I guess our message is that these problems do exist elsewhere. With all of the EISs and all of the assessments and all of the processes that companies need to go through to commence a mining operation, those issues have just occurred within the last six months in the basin just to our north. So the safeguards that are in place are not adequate to stop those issues and we do not want them happening here.

Senator WILLIAMS—What is the one river in the Murray-Darling Basin that has been diverted? You said there is only one.

Mr Penton—It is a small creek nearby as part of the new Alcan mining operation.

Senator McEWEN—In terms of the requirements of mining organisations to rehabilitate the land after they have ceased operations, have you got any experience of the adequacy of the requirements for rehabilitation and whether or not they are met?

Mr Penton—Our observations are that in recent years those obligations are quite often being met, but the obligations are relatively small in that companies are required to put, I believe, eight centimetres of topsoil back and restore the country to grazing status. We certainly have not seen and are quite sceptical about the potential for some of our better soils to be restored to croppable status. In order for a company to put 60 to 80 centimetres minimum back as topsoil to grow crops would be no mean feat to achieve. It is certainly not something we have observed anywhere around here or in Australia that we have heard of. We know of an operation in New South Wales that is back growing lucerne on a property that has previously been mined. But that

is probably not the same as growing grain crops. It certainly would not be. Lucerne is a much more forgiving crop in a lot of ways.

Senator McEWEN—Why is it so difficult to return the soil?

Mr Penton—You would need to stockpile the topsoil in such a way that it did not lose its biology and its structure, and that would be quite difficult. If you stockpiled a pile of topsoil for 10 years, most of it would be anaerobic. It would lose its biology and structure. To put that back is quite a difficult job. At the moment all that is required to be put back is quite a shallow rehab job, and those are being done; there is no doubt about that. But certainly restoring land to croppable status is not being done.

Senator McEWEN—We saw today a rehabilitated site where there is some grass growing. Clearly it does not look like similar landform just nearby. How long will it take to rehabilitate, not necessarily for cropping but perhaps just to bring it back to its former status, perhaps for grazing property?

Mr Penton—That could be done relatively quickly, I would imagine, if all you have to do is put eight centimetres back and have pasture growing. If you get the right rainfall and season and the pasture germinates and so forth then that could be done in a year of that site being finished. The problem we are talking about though is what is underneath the eight centimetres. If all you are wanting to do is grow pasture then that might be satisfactory. But if we are talking about our better cropping soils that have got, in some cases, two to three metres of topsoil, even putting 60 to 80 centimetres as a minimum back is not being done.

Senator McEWEN—Some submitters to this inquiry have suggested that one of the recommendations the committee could come up with is something along the lines of a definition of 'prime agricultural land' and that that land as so defined should be quarantined from the normal applications of the various legislation that deals with granting of exploration and mining licences. Do you have a view about that?

Mr Penton—Certainly the view of our committee is that we should be looking to protect our prime ag land. Some of the mapping you have before you has a dark green layer. That green layer on page 7 is a state government layer and it is what is currently deemed by state government to be the good-quality ag land for this part of the world. The difficulty is that that layer includes all of the classes—A, B, C and D—and to differentiate between those, to pull them apart, is not an easy exercise because those layers are historically applied differently by each local government. It is then up to each local government how the ag land policy is applied in Queensland and how they define that.

We have been undertaking some work—but it is not complete; that is why you do not have it in front of you—with state government to come up with what might be a premium ag land map. Some of the information we have is not state wide. The data sets do not exist, so it is not an easy job to do. But we are looking at soil depth, water-holding capacity, available water, rainfall reliability to whether the country can be cropped eight years out of 10 with reliable soil and reliable water. That type of thing that is what we are attempting to do. We believe that should be a key point of policy change in Queensland to do exactly what you just described.

Senator McEWEN—Just in Queensland?

Mr Penton—Obviously, given this inquiry, it would be great to see that done right across the country and that area preserved for agriculture right across the country. We are probably a little parochial and think we have the better soils here anyway, so here will do to start with!

Senator McEWEN—Has that sort of mapping and declaration of prime agricultural land been done anywhere? I am not just talking about Australia. Is there any other model that we could examine?

Mr Penton—Not that we are aware of. From a planning principle though, what has been done in South-East Queensland recently through the South-East Queensland statutory plan is the designation of areas for urban development and areas that are not for urban development. So historically in Queensland from the point of view of planning legislation and planning controls there have been very little in the way of no-go zones. But that principle has just been created in South-East Queensland where they have designated an urban footprint. Anything inside that is future housing; anything outside that is rural—it does not matter whether it is for mining, housing or whatever else. So we think there is potential for the state government to use that same planning principle in this part of the world to designate areas for agriculture that are not subject to other developments.

Senator McEWEN—Finally from me, could you give us a comment about your view of the adequacy or otherwise of the federal EPBC Act to address some of the issues that have been raised with us in this inquiry—in particular, with regard to protection of water in the Murray-Darling Basin in light of mining activities.

Mr Penton—If you go to page 32 in your pile of maps, you will see that we have created a map of the EPBC Act protected vegetation communities. The map with all the relatively small amount of green-scattered areas on it is the EPBC Act listed communities. If you overlay the coal exploration and the coal seam gas permits, which are the next two maps, and then minerals, you get to page 36, which has some figures on it. What that identifies is that there are about 880,000 hectares of EPBC Act listed vegetation communities in this part of the world—the Queensland Murray-Darling Basin. When you overlay just the coal permits, it is roughly 40 per cent of it. We know that not all of that exploration area is going to go ahead but, if it did, 40 per cent of the EPBC listed communities would be cleared.

The current process that is underway in Queensland is one of negotiating offsets with developments, whereby companies can allow clearing of one bit of remnant in order for another bit of remnant that is not currently protected by the state or federal act to be locked up. That offset policy is in place. The difficulty we have with it is that, effectively, from a landscape point of view, that allows for a 50 per cent loss. Essentially, you get to clear one bit of remnant by locking up another bit of remnant that is not protected by the act but that currently exists. If there is to be clearing of that type of vegetation, we would like to see that any development, including mining development, is required to rehabilitate and revegetate an equivalent area back to remnant status. Even if it means they need to enter into a management agreement with a landholder for 15 or 20 years for that to be managed back to remnant status, that would be better than achieving a 50 per cent loss, which is the current outcome.

We have recently been in a number of meetings and workshops with Commonwealth environment staff, looking at the adequacy of how the EPBC Act is being implemented and how that might be improved. At the end of the day, in terms of the approval process, it comes down to the discretion of the minister as to whether they intervene to stop a development or allow the offset process to run its course.

Senator McEWEN—What about the protection of water resources?

Father Harch—It is a bit unknown at the moment what the Murray-Darling water plan will actually do. It has huge potential to make a big difference, depending on how far they want to go. Some of the information requested is going to be available through the Bureau of Meteorology, because they now have power to request data. The Murray-Darling plan could set very high limits or low limits on water availability. It could set different target levels at different places and it could set different target levels on not only volume of flow but also quality of water. If it does that—and we believe that there is connectivity between underground flow and overland flow—then the potential for the Murray-Darling water plan to have a protection for this is quite large. It may not affect the biodiversity because the Murray-Darling water plan can only deal with the water inside the river. Other federal government acts would be needed to protect the biodiversity outside the streams.

Mr Penton—The EPBC Act has the potential for the Commonwealth minister to intervene if there is a development that has the potential to impact on a significant asset. Those would be listed wetlands. So it would be any of the listed environmental assets under the act, which includes things like Ramsar listed wetlands. For us, that includes things like the Narran Lakes and so forth, which go over the border into New South Wales. There are very few Ramsar listed wetlands in the Queensland Murray-Darling Basin—certainly not on the eastern downs. So it would require the significant threat part of the act to be triggered for a listed community or a listed site to be protected.

Senator LUDLAM—I was looking through the maps as you were talking, and I want to bring you back to some the comments you made before about what constitutes prime agricultural land. For the region that we are in here, your map on page 7 of good quality agricultural land overlaid with your map of page 5 of granted coal exploration permits show that entire strip to be under permit. It would seem to me to be a fairly urgent matter to sort out the different bands. In your work with the Queensland government, I think you classified four different bands within what is considered to be good quality agricultural land. How far away is the completion of that work before you will be able to say that, at least for this region, these are the no-go areas?

Mr Penton—I think the work on that by our little organisation is within weeks of being completed. In terms of our negotiations and discussions with state government, some of those will happen in the next few weeks. It is our understanding, although it is not official, that some work has been going on within state government to try to better define premium or a different class of agricultural land and to look at some policy changes are required in terms of how that might be treated for development. That is as much as we know. Over the coming weeks, it is our intention to try to have some influence in that arena.

Senator LUDLAM—I suppose where it gets political is whether the land that we drove around this morning in Felton, which the plant is just about to bowl over, would qualify as premium farmland in any reasonable scheme?

Mr Penton—The mapping which identifies that alluvial flood plain area is located towards the back of your maps—I think we were there just a moment ago—at map 45. Map 45 has what is deemed to be an alluvial plain as a land system. Our assumption is that large areas of that alluvial plain would end up falling into what we would deem to be prime agricultural land. As we get further west in this region, some of the other characteristics like plant available water and rainfall reliability come into play, which would mean that, even though we have got deeper soil and flat country and so forth, we are not going to be able to crop that eight years out of 10, and so it would start to fall out of the premium class. As we come further east on the eastern downs country, we have higher rainfall and greater plant available water et cetera. So it is not just the soil depth and the soil quality that turn this into premium agricultural land. If we look at all those little brown areas that duck up into some of those valleys to the south of Toowoomba, where it has the upper Hodgson Creek, Nobby Basalts and King’s Creek—some of those areas through there—then some of those alluvial plain fingers that go up into those valleys would include the Felton area.

Senator LUDLAM—To summarise, you may be a matter of weeks away from defining, to your satisfaction at least from the research that you have done, all these areas as prime farmland and therefore no-go areas—certainly for the very heavy footprint industries of open cut mining. This is at the same time as the Queensland government is signing intercoal leases like there is no tomorrow. Should there be a moratorium on this sort of work? What should happen while this work is concluding?

Mr Penton—Certainly, a moratorium would be nice. At the moment, a lot of what we have provided you is in terms of where the status of the industry, which is at exploration stage. It could be argued that there is still plenty of potential to progress from the exploration stage through to the permit process before the full operation and for the state government to pull up a lot of development. Although, as you said, the map you have there has almost the entire eastern downs covered with an exploration permit. You have also got another map there which shows the current mining operations, which are in the order of 17,000 hectares—quite small.

Senator LUDLAM—You have another map which shows the current mining operations, which is in the order of 17,000 hectares—quite small.

Mr Penton—We feel that we are still at a stage to be able to have some management input into the longer term of the industry and what the real footprint might end up being. I certainly think that one of the issues that has helped put the brakes on the industry somewhat is access to transport. At the moment there are a limited transport options to get coal out of the region. Whilst that is the case, the pace of coal being opened up has been quite checked. There are plans for further railway infrastructure to assist in getting coal through Central Queensland. As soon as that transport infrastructure is more in place, then, as you could imagine, the industry will have greater potential to accelerate. So there is still an opportunity to have some influence, while the exploration permits are at this stage.

Senator LUDLAM—That is hopeful. As to the next stage of your research, where you will provide us with more fine-grained maps of what you constitute as premium land, will that be public or is that being provided to the Queensland government? Where will that data go?

Mr Penton—We are a community organisation, so our intent is that that information is public. Obviously we are in the process of pursuing the state government. We have a number of meetings set up with the state government to have those discussions. It is also our practice to try to have some of those frank discussions with them behind closed doors and not in the media. It will be a balancing act over the coming couple of months.

Senator LUDLAM—Do you have direct contact with any of the resource companies that are active in the area—coal companies and so on?

Mr Penton—We have had contact with a number of companies—both coal and coal seam gas companies—over the last 12 months. Their staff live and work here as well. A number of those companies have been here for years. Santos has been in this region for over 30 years. They do not want to leave a negative legacy. Some of what we are talking about is of a planning and policy nature. We are not talking about fighting individual companies.

Senator LUDLAM—Presumably they are aware, as the public is aware, of the nature of this mapping and the fact that very shortly you might be recommending that the very same country that has been targeted most intensively needs to be out of bounds for very good reasons. What has the reaction been?

Mr Penton—There is no doubt that the issue of good-quality ag land and, as you said, what might be out of bounds is not one on which to easily find agreement—at least not easy ground to find agreement amongst landholders, I might add. Everyone thinks their country is pretty good. Simply the exercise of drawing a boundary around soil type, depth of soil or what have you and saying, ‘That’s premium and that’s not,’ will be a tricky exercise from a community relations point of view, let alone expecting the state government to take some hard decisions. Let’s say good-quality ag land is not an easily subject to discuss. Lots of other issues are much easier to debate. It is not so hard to reach agreement on whether we do or do not have stream diversions. People will think, ‘No, that’s not a good thing,’ as will some of the companies. One of the areas that you might think is sticky is public disclosure of monitoring results. A number of the companies are quite happy for their monitoring data to be made public. It is just that at the moment the process is that they make it available to state government and that data is not utilised in a public fashion. It is not that the companies are not happy for it to be made public—some are. So there are a number of issues on which we are not on different ground, but good-quality ag land is a difficult issue. There is no doubt.

Senator LUDLAM—I guess we are not here to investigate the easy issues. Thanks very much for providing us with all this information.

CHAIR—Thank you very much. I know we all have many more questions we would like to explore with you but time, as always at these events, is limited. If we do have other questions on notice we will certainly be in touch. Thank you for your attendance today and particularly for the very detailed submissions and mapping evidence that you have provided to us. It know they will be most useful in the deliberations of the committee. Thank you again.

[3.56 pm]

BARGER, Mr Andrew John, Director, Industry Policy, Queensland Resources Council

DAVIDGE, Mr Shaun Christopher, Manager, Water Strategies, Santos

CRAFTER, Mr Samuel James, Senior Adviser, Public Affairs, Santos

KELEMEN, Mr Stephen Gyula, Manager, CSG, Santos

LANE, Mr Gregory George, Deputy Chief Executive, Queensland Resources Council

CHAIR—Gentlemen, welcome. Thank you very much for your time today and for appearing. We have received from the Queensland Resources Council submission No. 58. Do you have any amendments or alterations to make to that submission?

Mr Lane—No, we do not.

CHAIR—From Santos we have received some additional information that has been circulated amongst the committee members. Is there anything else you would like to provide the committee with or are there any changes to that information?

Mr Crafter—No.

CHAIR—In that case, would either or both groups like to make an opening statement?

Mr Lane—Thank you for the opportunity to address the committee here today. I have with me our director of industry policy, Andrew Barger, on my right, as well as my colleagues Stephen Kelemen, Sam Crafter and Shaun Davidge from Santos on my left.

Queensland's fortunes remain closely aligned to two major industries, agriculture and mining, and will continue to do so for many decades to come. As our Premier has pointed out on more than one occasion recently, agriculture and mining are portrayed sitting side by side on the Queensland coat of arms.

Working together for a shared future is not simply a motto but rather the vision of the Queensland Resources Council, which Andrew and I represent here today. The QRC represents more than 150 companies with interests in the sustainable and profitable development of the state's minerals and energy resources. We have a membership comprising 72 companies engaged in exploration, mining, minerals processing, site contracting, oil and gas production, and electricity generation, as well as a number of emerging industries, such as the export of liquefied natural gas, underground coal gasification, coal to liquid fuel processing, oil shale and uranium mining.

The future for the environment, employment sustainability and growth is inextricably linked to the economy and the major industries which drive it. Just for the information of the

committee, the resources sector already represents, directly and indirectly, approximately 20 per cent of Queensland's economic output and 12 per cent of Queensland's employment. In 2008-09 the value of our production from our resources sector was approaching some \$50 billion.

Our submission to the inquiry summarises the economic importance of the resources sector to the state and the strict range of legislation and regulation which the industry must meet, at a minimum, in order to gain government's approvals to extract the mineral and energy resources of this state. Almost every aspect of the mining operation in Queensland is regulated and monitored. An initial stocktake confirms mining and petroleum operations in Queensland can fall under the purview of more than 120 different state, national and international regulations. The state government own the mineral and gas resources on behalf of all Queenslanders. They allocate the exploration, mining and petroleum tenures and they design the legislation that literally lays down the law that we must follow as mining operations.

Every resource development in the state must meet strict environmental licence conditions, and these are drawn up after the government's thorough assessment of the formal environmental impact statement or similar mechanism to have the last word on how a mine operates in Queensland. Both the EIS and the development of a company's environmental operating requirements, called an environmental authority, have multiple regulatory requirements and processes in relation to public consultation, objection and appeal rights. In the case of mining, this provides substantial opportunity for community input into what a mine's rehabilitation should deliver. In short, the resources sector in Queensland operates under a strict multistage approvals process, including leading environmental safeguards to identify and recover the resources which belong to the population of the state. This government's accountabilities through its legislation, industry development policies and regulatory framework can achieve this potential.

I do not have to remind the committee that Australia is a trading nation. In just over five years time Australia is forecast to have an annual import bill for transport fuels of around \$26 billion. That figure assumes relative stability in oil supplies, cartel pricing and exchange rates, which is a big ask in anyone's terms. For comparative purposes, by 2015 our national annual fuel bill will be twice the value of Queensland's entire agricultural output, or around half the value of the resources sector's present production in this state. That is why we are seeing the emergence in Queensland of new liquid fuel production concepts such as coal to liquids, underground coal gasification and oil shale. Australia is a minerals and energy supermarket, and Queensland is obviously a major source of those mineral and energy reserves. We all know that by 2030 the world is forecast to be using around 60 per cent more energy than it is today. The fastest growing primary energy in the world today is coal, running at almost five per cent a year, or twice as much as gas and oil.

I hope that my comments to this point will inject some context into the local issues that are occupying the minds of a number of rural communities in Queensland at the present time. There is a view in some quarters, illustrated by the title of this inquiry, that resource exploration and development in Queensland may be a direct threat to the future of the environment and agriculture on the Darling Downs and the Murray-Darling Basin. QRC and its members are neither dismissive of nor deaf to the complaints and concerns that have been voiced, particularly by rural land holders here in the Surat Basin. The fact that the perception of threat exists is grounds enough to address the matter openly, and that is what the QRC has sought to do through

formal consultative processes at the highest state government levels. In addition, we have been engaged and active in constructive dialogue with AgForce, the Queensland Farmers Federation and Future Food Queensland.

You will find no more sympathetic an ear to the call for long-term land use planning in Queensland than from the QRC and its members. Let me be very clear on behalf of the QRC and its members that we fully support the role of the state government in developing a workable long-term strategic plan for the Surat Basin, including land use. Let me also say that we have no problem with the identification and preservation through state government planning instruments of prime agricultural land. All we are asking for is the transparent application of objective criteria to determine what is agricultural land. This is the way that the mining industry is used to doing business: conditions are set, and they are met. It is how we continue to underwrite and preserve our social licence to operate.

One of the other issues causing concern in the basin is the production of saline water as a by-product in the extraction of coal seam gas from depths of up to one kilometre, and the QRC commends to the committee the submission by our sister organisation, APPEA, on this issue. Exploration regulations and land access are complex. However, despite the complexity, I want to leave you in no doubt of the iron law of mineral exploration. It is two words: make good. Our job is to leave the country as we found it. If we cannot, or if we break property or impact on the normal running of the business, then we must make good that impact.

Recently there has been commentary to the effect that Queensland countryside is being overrun by exploration and mining developments. I just need to set the record straight. Queensland has a land mass of 1.7 million square kilometres. At this point in time, actual mining operations are covering around 1,700 square kilometres, or 0.01 per cent of the state. That is one-tenth of one per cent. The widely reported view at present is that an area equivalent to 85 per cent of the state is covered by exploration, but the reality, we believe, is that there is a lot of land being double and triple counted because we have overlapping tenures in Queensland. There are currently four different forms of exploration tenure which can coexist here. Exploration can occur for gas and petroleum, for minerals, for geothermal energy and for carbon storage.

The other thing I want to convey to you is that, throughout the history of Queensland, it has been normal to have large areas of the state subject to some form of exploration tenure; however, at any one time the actual area being mined is a tiny fraction of the state.

In closing, QRC would also wish to leave the inquiry with another two key words: energy security. They hold the key to geopolitical stability and population growth. With the correct policy and regulatory settings, government can make a major contribution to our energy security and the economy while sustaining the environment through the existing and emerging resource industries which QRC represents.

CHAIR—Thank you. Would Santos care to make a brief opening statement?

Mr Crafter—Just a few key points. Firstly, thank you very much for the opportunity to be here and for the committee's visit to our core hole drilling site yesterday. There are four key points for us. Some of these will not be new to you. We see an increasing role for gas in meeting Australia's power generation needs. Our coal seam gas resources will play an integral part in

that. Energy security, which has already been touched on, obviously has benefits to all parts of the Australian economy, including the agricultural sector.

We also think that our operations here in Queensland, in the Cooper Basin, and in Victoria, show that agriculture and gas extraction can coexist. As population growth continues, multiple uses of land rather than quarantining, we think, are the best response to increased demand for food and energy. This is particularly true when both can be provided from the same land, as is with the case with the coal seam gas extraction.

Finally, we are committed to treating the coal seam gas produced water to a standard where it is useful for landholders and the community. We are already doing this on a number of fronts in Queensland, and we can get into more detail. Whilst it is not a permanent supply, treated CSG water has the potential to be used as an addition to scarce water supplies and even in addition to the water being put into the Murray-Darling Basin. We commend the submission of our industry organisation, APPEA, to you as well.

CHAIR—Thank you. Senator Williams may need to sneak off a bit early, so we will go directly to questions.

Senator WILLIAMS—Thank you for your attendance here. Mr Lane, you said that, even though huge areas of Queensland have been marked out or approved for exploration, only a minute amount of land is being mined. Would you agree there is only a minute amount of prime agricultural land in Queensland as well?

Mr Lane—We understand that is the case, from other experts. We do not presume to define ourselves what prime agricultural land is.

Senator WILLIAMS—It is very difficult. I know New South Wales farmers have actually set out to look for a definition of prime agricultural land. It is a very difficult thing to define. The point I make is that, when you have good black soil country that holds moisture magnificently, if it has a full profile of moisture come the end of autumn and can basically grow a tonne-to-the-acre wheat crop without any rain, then that is very good agricultural land. That is what is around here. Of course, you are well aware of that. It is the same as the Liverpool Plains et cetera. With underground aquifers attached to it, surely that land must take some priority as far as preservation is concerned.

Mr Lane—In my opening address, I alluded to the fact that we are quite supportive of planning instruments that identify those lands and how they are to be used in the future. We do not draw a line around those and say that we should put a fence around them. We still believe that, with good planning processes and good control processes through the environmental impact statement, the best decisions can be made around the use of that land moving forward.

Senator WILLIAMS—Fair enough. I would like to make it clear that I am not anti mining. Mining has delivered so much wealth to this nation. The car I drove up in from Inverell last night is not made of gum leaves or bark or something; it is actually made from steel from iron ore et cetera. It is part of the world we live in today. This might be a question for Mr Barger. Has research shown how deep an open-cut mine around here would have to be cut? Would it cut through underground aquifers?

Mr Barger—Thank you for the question. To provide context, it is going back to what Greg said. That is part of the reason we think just a simple ring-fencing solution is not necessarily the right answer. It needs a case-by-case evaluation. In some cases, if you have deep coal, shallow aquifers and fragile aquifers, clearly that is not a recipe for successful mining. What we would say is the best way to bring that information out and make that decision very clear is to have a planning process that provides that information. So you would have some information on the table that says, ‘In this region, we have some clear, objective information on the productivity of the land.’ I notice in the committee’s terms of reference that agricultural productivity is mentioned. It is not ‘total product’; it is ‘productivities’. So it is looking at where the really hardworking bits of land are in the Murray-Darling Basin. I think that is an important point.

It needs a case-by-case assessment on particular prospects. That is again the point Greg made about the broad acre nature of mineral exploration. You need to have a look at a lot of country because a lot will be ruled out immediately. If the land is highly productive, if it is difficult to rehabilitate and you are not confident you are going to be able to return it to the state you found it in or if it is a long way from infrastructure then it will be ruled out fairly quickly.

One of the other messages we would look to give to not just senators but also the community is that having a lot of country under mineral exploration is a good thing because that is a process of whittling away options. It is a process for saying, ‘This country is never going to support a coal mine under the current circumstances, so we will relinquish that. We are not interested in that any more.’ That is essentially what the process of exploration is. It is about casting the net very widely and then whittling that back until you get to some promising prospects.

Some of those variables that you mentioned are really important. The problem we have at the moment is that you cannot go to, say, the Queensland journal of prime agricultural land and say, ‘This block is absolutely premium.’ That information is difficult to get. It is subjective. That is why you heard the previous witness talking about the difficulties even within the agricultural sector of agreeing on a definition. What we say is that, rather than taking the lazy option and trying to ring fence an area, what you should do is have a case-by-case assessment asking, ‘What would it take to get a project up in this area knowing what we know? What else do we need to find out?’ That basically describes the state government’s environmental impact statement process.

Senator WILLIAMS—Mr Lane, are you aware of the legislation that passed through the federal parliament last December whereby for flood plain areas in the Murray-Darling catchment with underground aquifers you cannot proceed to full-scale mining until an independent hydrological study has been carried out on the effects of mining on those underground aquifers?

Mr Lane—I am not personally aware of it, but thank you for informing me.

Senator WILLIAMS—Yes. I just want to bring to your attention that federal parliament has passed that legislation. For example, in New South Wales exploration is being carried out now on the Liverpool Plains. Before they can proceed to full-scale mining, an independent hydrological study on the underground aquifers must be carried out and reported on. I emphasise ‘independent’. I wanted to bring that to your attention.

I have one last question. Mr Crafter, it is good to see you again. I hope things are well with you. With the coal seam gas, we have heard a lot today about the huge concerns about the amount of salt that will be derived from drawing the water out from underground when allowing the gas to run. For any of the projected coal seam projects around here, have you done any surveys of the actual salinity of that water—how dilute it is or how much salt is contained in it?

Mr Crafter—Sure.

Mr Davidge—We have actually done quite extensive surveys on the groundwater quality in the CSG reservoirs that we propose to develop. We are aware that the water quality is normally what we would call brackish rather than saline. It is typically in the vicinity of 2,000 but up to occasionally 4,000 milligrams per litre, and some isolated pockets are higher than that. So this water is actually usable in some cases at the lower end of the spectrum, and in all cases it can be passed through a treatment process to make it a valuable product for beneficial use by the community.

Senator WILLIAMS—So you are saying that, in all cases in the tests you have done in this basin, through treatment the water could be recycled for most uses—is that what you are saying?

Mr Davidge—That is correct.

Senator WILLIAMS—What about the salt that would form in the settling ponds. I think actually having settling ponds or evaporation ponds has been outlawed now in Queensland, hasn't it?

Mr Davidge—What has been ruled out in Queensland is the use of evaporation ponds as a primary means of water management. That does not exclude, at the moment, the need for water management ponds during the process of taking the water out of the ground and managing it prior to its final destination and it does not exclude the potential use of short-term evaporation ponds for the waste solution coming out of the treatment process.

Senator WILLIAMS—So what are Santos's plans to dispose of the salt. The committee heard earlier on today that large amounts of salt are formed by the process of retrieving the gas. What is Santos's program? Where are they going to put the salt?

Mr Davidge—Santos has not reached a final conclusion on that topic. We have made good progress on considering a range of options for salt management. Our immediate plan is to contain it in ponds, which will be of an approved design as passed by the government. We are looking at the reinjection of the salt water back into the coal seams from it came. We are also looking at extracting commercial value from the salts to minimise their volume and to get a commercial return for the community. Any salt which cannot be disposed of in one of those processes may be contained in a correctly-designed hazardous waste landfill.

Senator WILLIAMS—Finally, and this will be my last question, can you give me an example from one of your coal seam gas projects that is operating in Queensland now of how many tonnes of salt you are actually getting from that per year? Do you have any idea?

Mr Davidge—We have one operating field—Fairview field—and I could not off the top of my head give you any idea of how many tonnes of salt are produced, but I could probably get back to you after a few calculations.

Senator WILLIAMS—If you could take on notice how many tonnes of salt are produced and forward the answer to the Secretary of the committee, that would be great.

Mr Davidge—Yes.

Senator McEWEN—Whereabouts in Queensland is that field that you were talking about, Mr Davidge?

Mr Davidge—That is to the east of Injune.

Senator McEWEN—So it is not in the Murray-Darling Basin?

Mr Davidge—No, in fact that actually reports to the Fitzroy catchment.

Senator McEWEN—Okay, so that may not necessarily be translatable in terms of the amount of salt that would come out of an extraction here?

Mr Davidge—It would certainly give you an indication of the order of magnitude of salt that might come from a kilometre square of development area, but you are right in saying that it does not report to the Murray-Darling.

Senator McEWEN—I would like to just acknowledge Santos for appearing before the committee today. No other mining companies have, and so we do thank you for appearing. We have had a bit of discussion about salt extraction and what is going to happen to the salt. Some of the things that have been raised include ‘fracking’ and toxic and carcinogenic chemicals that are used in the process of extracting the gas. Can you perhaps give us Santos’s point of view on those issues?

Mr Kelemen—I guess what you are referring to is the drilling of wells. In the drilling of wells we use a water based fluid. We do not use any toxic chemicals—in fact they are certified as non toxic. So everything we use is benign to the environment. We ensure that all wells are case cemented and isolated through the various strata that we drill for the coal seams. In terms of fracking, the process of fracking or fracture stimulation is a method by which you propagate open the coal seam to enhance its ability to flow. You restrict that fracture to the coal seam itself, and in doing so you typically use a water based fluid with some polymers which are biodegradable and which put a prop head in the ground. A prop head can be some sort of sand prop head just to keep the fractures open as you propagate the coal open with the pressure. So there are no toxic chemicals used in terms of the subsurface.

Senator McEWEN—And what do you do with the liquid that arises from that?

Mr Kelemen—It is basically water. You actually recover the liquid and you properly dispose of it.

Senator McEWEN—And what does that mean?

Mr Kelemen—It depends where you are and what the legislation is but it is non toxic. It gets buried back into a proper waste disposal unit.

Mr Crafter—In New South Wales it goes to an EPA licensed waste facility. So that is an example of how it operates in that area.

Mr Kelemen—It is just a typical mud. In the case of Queensland, just like with drilling mud, you would bury it back on-site in a registered pit and cover it up after it dries out.

Senator McEWEN—So in Queensland, unlike in New South Wales where it goes to a proper facility, there is no designated facility? You would just bury it on-site?

Mr Davidge—First of all, to reiterate what Stephen said, the actual additives that are used in fracking are basically a long form of sugar. So there are no carcinogens involved. We pump a small amount of water down into the aquifer during the process of fracking. We recover all of that water during the process of testing the aquifer. Typically that water is retained until after we have pumped the aquifer well and truly clear of all the water and all the degraded products of the sugar. Depending on water chemical analyses, that water may go through a treatment plant. It may be used for dust suppression. But it has to go through a very strict analysis as to suitability under best practice environmental guidelines.

Senator McEWEN—Some claims have been made that, in terms of salt extraction, over a 30-year period for a well there could be 50,000 million tonnes of salt extracted that needed to be disposed of. Is that sort of figure in the ballpark? Is that right?

Mr Davidge—No, that is several orders of magnitude higher than the very biggest numbers we have seen for our project, for example—and we are one of only two or three that may get up.

Senator McEWEN—I think people sometimes arrive at these figures and make claims about chemicals because they are looking at the experience in the United States—because in fact we do not have a lot of experience in this kind of gas extraction here. Is that correct? Are people using a model that may not be appropriate to Australia?

Mr Crafter—I think a lot of the material surfacing in some of the engagement we have in different areas, particularly in New South Wales, does seem to be coming from US information that is around the US experience. I am not sure that is in the context of our operations here in Australia. I think probably a more appropriate comparison is the work that is underway here in Queensland. That is on the same continent at least. It is not the same immediate situation or agricultural circumstances as in other areas but that evidence is much more likely to simulate what happens in the rest of Australia—such as New South Wales versus Queensland, for example. I will probably need to throw this question to Stephen or somebody but my understanding is that a lot of the stuff that comes up is about 40- to 50-year-old history in the United States and events that happened a long time ago.

Mr Kelemen—We have to be careful on this when we talk about experience. We have been producing coal seam gas in Queensland for a little over 10 years now. Fairview was really the

first field, in the mid-nineties. The US experience starts in the mid-eighties so it is about 10 years difference in experience. Some of the things you may be talking about may be conventional. There are a lot of misnomers in the data and you need to get the facts correct. Some of the regulations of today just did not exist in the United States back in eighties. Today there are certain regulations we abide by.

Senator McEWEN—Finally from me, clearly while Santos has been in the region for I think you said 30 years or something your current activities are causing some controversy in the community. So why don't you just go and do what you do away from centres of population like this and away from prime agricultural land?

Mr Kelemen—The resource, the coal seam gas, appears in certain parts. The geology is such that the prime resource of the coal seam gas is through the Bowen, Surat and Gunnedah basins. That is in this part of the country. If you go out further west, the basins do not exist. So you have to be where the coal is—and the gas is on the coal. So we do not choose where it is; it is where it is.

Mr Crafter—If you take it a step further, coal seam gas, as unconventional gas has in the United States, has really changed the energy supply forecast here in Australia. Five to 10 years ago there were concerns about the supply of gas. There were investigations into a pipeline of gas from Papua New Guinea into Queensland et cetera. In the last five years the whole dynamic about the future of gas supply has changed, and we think the comparative advantage coal energy has had is transitioning to gas because of the size of that resource in the coal seam. So it is not insignificant. It is not like the Cooper Basin operations of conventional gas. Whilst there is still plenty of opportunity there, the growth of the East Coast coal seam gas resources is really what is driving energy security going forward. It is an energy supply potentially for hundreds of years for Australia. That is the broader context around energy security and the role we believe coal seam gas is going to play in that.

Senator LUDLAM—I would like to put on the record that I appreciate Santos taking the time to turn up today. BHP, Xinhua and Ambre Energy did not, but it certainly assists us to be able to speak with you face to face. You corrected Senator McEwen before in terms of the total volume of salt but you did not actually provide us with a figure. If you are successful and if you achieve the sorts of extraction rates that you are attempting, what volume of salt will you be dealing with at a maximum during the life of the project?

Mr Davidge—As I advised Senator Williams, that is a number I would need to do some calculations on. I have taken it on notice to get back to you with that number.

Senator LUDLAM—What you undertook for Senator Williams was what volume of salt you are already taking out at your existing fields, so this is a different question.

Mr Davidge—It is a related question. We would need to apply the calculation of how much we are taking out on a daily basis or an annual basis now to the proposed duration of the project.

Mr Crafter—Part of the issue, as far as I understand it, is that it varies from field to field. The fields do not produce water at the same brackishness or salinity, so it varies from field to field. Whilst we will do our best to provide the numbers we can, there is an element of speculation

there as well that we cannot avoid. We will be able to use some information from the fields that we have that are producing, and we can do a calculation for the life expectancy of the field or something like that potentially, but it is getting into speculative territory. The next field may produce very little water. Some of our fields produce hardly any, so there is an element of speculation involved.

Senator LUDLAM—I am not asking for an exact tonnage. But, to rebut the figure that Senator McEwen put to you before, you must have an order of magnitude idea. You must know.

Mr Crafter—Yes, sure.

Senator LUDLAM—So what are we looking at?

Mr Davidge—We will need to get back to you with that number as well.

Senator LUDLAM—It is a little unfortunate for you to tell us that we have it wrong but not be able to tell us what would be correct.

Mr Davidge—I can tell you that it is wrong, but I would like to give you the best number that we can in answer to your question.

Senator LUDLAM—After we have left. I had not come across the concept of dumping the salt back into the formations that the water is coming from. What level of experimentation or planning are you up to with that?

Mr Davidge—At the moment we have done desktop studies on the geochemistry issues and we have looked at technical aspects and costing aspects of it. If we are to take this any further, first we must have a project and, second, we need to do trial injection studies. We also need to explore the regulatory regime. At the moment, the regulations in Queensland make it very difficult for re-injection of any water because they are primarily focused on meeting or being below the salinity of the receiving waters. There are many, many other issues to take into account.

Senator LUDLAM—I guess there are good reasons for that. You will not know until you have a project, did you say? So you will not be able to tell us whether re-injecting the material back into the formation that it came from will be a viable strategy until the project is signed off. Is that correct?

Mr Davidge—We need to know how big the project is and for how long it is going. So, yes, that is correct. It is going to be a technical and a commercial decision.

Senator LUDLAM—So how are the regulators or indeed the community meant to assess the acceptability of the amount of salt that you would be producing if we will not know until the project has been signed off whether you are going to need to leave it on the surface, dump it, bring it out in road trains or re-inject it?

Mr Davidge—The regulators are being informed by the EIS process and a number of other exchanges with the CSG companies, including Santos. One hopes that the many regulatory

agencies who are involved, in their technical interchange, will come to their own opinion as to what is an acceptable method for disposing of the salt.

Senator LUDLAM—I am not sure that I am reading you wrongly. Did you just say that you will not know that until the project has been signed off and approved? Is that correct?

Mr Davidge—We will not know the method of disposal of the salt until the final description of the project is known—

Senator LUDLAM—But that is up to you guys, not the regulators.

Mr Davidge—until we have received firmer guidance from the regulators as to what is on the table and what is not on the table.

Senator LUDLAM—So it is just not possible to say at this stage and maybe not for a little while?

Mr Davidge—We have clearly stated that our preference is to remove the salt from the landscape and, failing that, we will use very best practice measures approved by the regulators for containment of the salt.

Mr Crafter—The method of working with the department in Queensland is collaborative. We do not sit back and wait for these things to be developed across the coal seam gas area. With the remit of regulatory issues that we have, there are a lot of working parties and a lot of working groups that Shaun and his team take part in. It is a joint industry-government information exchange so that the government can make a determination on what it sees fit.

Senator LUDLAM—You said before that you are only one of the major players around coal seam gas projects in this part of the world. There are another one or two—is that correct?

Mr Kelemen—The other major players are Fiji, Australia-Pacific LNG, which is the Origin-ConocoPhillips venture, ARL Energy, Sydney Gas, and Australian Gas Light, AGL. They are the major coal seam gas players.

Senator LUDLAM—So you are one of three, four or five. Are you collaborating with those other companies on some of the questions that they are presumably confronting as well—about what to do with the waste material?

Mr Davidge—We have a regular forum of all the managers—the principal four of those companies, such as us, BG, Origin and Arrow. Certainly one of the topics for regular discussion is collaboration on waste disposal.

Senator LUDLAM—We heard from earlier witnesses that there is not even the trucking and rail capacity to get wheat crops out of this part of the world, let alone very high tonnages of salt. Are you in discussion with some of those other sectors on potential future transport needs for the waste products?

Mr Davidge—No, we are not. We would not consider transporting salt as a commercially viable opportunity for the management of salt.

Senator LUDLAM—So there is no real prospect of raiing or trucking it out?

Mr Davidge—No.

Senator LUDLAM—I have a couple of questions for the other two gentlemen, if I may. I believe you were in the room earlier when we were taking evidence from the folk providing quite detailed mapping. Is it a concern to you that it appears as though areas of prime farming country almost exactly overlap with the areas of coal exploration leases that are being granted at the moment?

Mr Barger—It is a concern, to the extent of the policy framework that those decisions are being taken in. We heard from earlier witnesses that we have four grades of agricultural land identified in a state planning policy that are difficult to delineate between; and where it is difficult to draw clear boundaries on a map. So, in an environment where options like a moratorium are actively being canvassed, that is a real concern. The reason is because of the way the industry operates, which is to say, ‘Let’s have a look at the resource; let’s look at some of the issues you are talking about, such as access to infrastructure.’ Some of the questions that other senators were asking are important, too, like access to population centres and whether there is a workforce that a possible operation could tap into. A whole host of variables need to be taken into a case-by-case consideration. That is a longwinded way of saying, yes, that overlap is a concern.

Part of the reason for that concern is that we are seeing a policy debate getting in front of the scientific debate. We are speculating policy solutions to issues we have not yet resolved. We have not resolved the science of whether we actually have a problem. The clear message from our submission and our members would be that, because any resource companies have a legislative obligation to make good their impact on the countryside, they have the same interests as a landholder in understanding the land value up front. If there is something particularly special or if there is some highly productive land, that will cost you a lot more to rehabilitate. With all else being equal, if you have another resource somewhere else, you will go for that.

The worst possible outcome for the landholder, for the resource company and for the state is that that information does not surface until after you have started damaging it. If you have already started your operations and suddenly think, ‘Hang on, this topsoil just keeps going and going and going,’ that is an atrocious outcome because, from the company’s and also the landholder’s point of view, you have set up a legislative responsibility to fix something that maybe you cannot. You are effectively signing a sort of blank cheque.

The reason that the QRC agrees with what we have heard from a lot of the individual submissions that you have heard today for a rigorous planning process is that, at the front end, you need to get that science, that information, on the table so that you can see where the productive land is, you can do it in an objective way and companies can then factor that in to the EIS process.

Senator LUDLAM—But we have companies drilling like crazy and throwing leases over areas that are quite clearly farming land that is as good as we get in this country. Isn't it blindingly obvious that there is a real collision of priorities here? Wouldn't a moratorium be better? Business is always talking about certainty and so on. Wouldn't it be better, rather than spending money exploring those areas that are clearly unsuitable for open-cut mining, for everyone to just take a deep breath and step back until that science does come in?

Mr Barger—There are a couple of things there. One is that we are talking about exploration leases. That is very different from open-cut mining. Open-cut mining is one of the possible ways of accessing a coal resource. Coal seam gas is another, as is underground coal gasification, and the boffins may well in the future invent new ways of accessing the resource. There is a real risk in jumping ahead from having an exploration permit on a property to saying it is automatic that there is going to be a 300-metre pit there in X years time, because it is not.

The other thing is that exploration is essentially a research and development activity. Mineral exploration tends to be done with a fairly light touch. It does not necessarily need to get in the landholder's way at all if it is managed properly. The exploration industry and the landholder can co-exist quite happily and productively.

The information that is gathered then goes to the state government and it sits in a public database. It is exploration in the old British colonial sense of the word. At the moment there are still chunks of Queensland which are uncoloured—it is like the old cartographer's map noting 'there be dragons'. We actually do not know what is down there. What happens with the explorers is that they drill a hole and they have a look at it. If you have then got a core that shows that the topsoil goes down 60 metres and then there is an aquifer, you will put a big red cross there, as that is not going to be a good place to operate. Both parties that you have heard from—the agricultural industry and the resources industry—have a shared interest in getting an understanding of the resource, and I think that is what the exploration industry delivers.

Senator LUDLAM—That all sounds very benign. We have two projects on the books at the moment that we visited today. One is a very large-scale expansion of existing operations and one is a potential mine on the other side town. They have gone well beyond the exploration stage and are proceeding towards production as rapidly as they can in the absence of the kind of science and mapping that you say is essential for proper regional planning. How do you reconcile those two things?

Mr Barger—How I would reconcile them is what I talked about. A lot of the uncertainty and concern that you heard about today is not understanding that full process that goes through from exploration to the higher forms of tenure and to an actual financial decision being made to go ahead.

Senator LUDLAM—I think people actually understand it quite well, which is the reason that there is a room full of people.

Members of the audience interjecting—

Senator LUDLAM—Mr Barger, had you finished your comments there?

Mr Barger—Yes, thank you. It is always good to finish on a round of applause!

Senator LUDLAM—Very good! I will leave it there.

CHAIR—Thank you, Senator Ludlam. We are running over time, so I am not going to hold the committee and everyone else up with another round of questions. I will, however, set a little bit of homework for Santos—or you might like to outsource it to APPEA. My colleagues have raised a number of issues about coal seam gas, the processes that are used and some of the concerns that have been raised with this committee over the last couple of days. One of the submissions we have received, the submission from the coal seam methane subcommittee of the Caroon Coal Action Group, contains just about every risk that I have heard presented over the last couple of days. A few more are outlined, many of which I suspect come from the issues that Senator McEwen raised about historical problems. I would like to see the industry's response to each of those issues. If that could be provided to us at some stage over the next few weeks, that would be greatly appreciated.

I thank both the Queensland Resources Council and Santos for appearing. I add my particular thanks to those of Senator McEwen and Senator Ludlam to Santos, the only resource or energy company to front up in these two days of hearings. It is greatly appreciated.

Once again, I extend my thanks to the local communities both here in Oakey and the surrounding townships and yesterday in Gunnedah for their assistance in the site visits we undertook and again to Santos for their assistance with a site visit outside Gunnedah yesterday. My thanks to the committee, to the committee secretariat and to Hansard and Broadcasting for their assistance in the operations of the committee.

Does the committee accept revised submissions and additional information provided? Everyone is in favour, so that is carried.

Committee adjourned at 4.41 pm