CLEAN ECONOMY JOBS, RESOURCES AND TRANSPORT COMMITTEE

Members present:
Ms KE Richards MP—Chair
Mr PT Weir MP
Mr BW Head MP (virtual)
Ms JE Pease MP (virtual)
Mr TJ Watts MP (virtual)

Staff present:
Dr A Ward—Committee Secretary
Dr K Kowol—Assistant Committee Secretary

PUBLIC BRIEFING—INQUIRY INTO THE MINERAL AND ENERGY RESOURCES AND OTHER LEGISLATION AMENDMENT BILL 2024

TRANSCRIPT OF PROCEEDINGS

Friday, 24 May 2024

Brisbane

FRIDAY, 24 MAY 2024

The committee met at 3.00 pm.

CHAIR: Good afternoon. I declare open this final public briefing for the committee's consideration of the Mineral and Energy Resources and Other Legislation Amendment Bill 2024. My name is Kim Richards. I am the member for Redlands and the chair of the committee. I would like to acknowledge the traditional owners of the land on which we meet and pay my respects to elders past, present and emerging. In this country we are very fortunate to have two of the world's oldest continuing living cultures in Aboriginal and Torres Strait Islander peoples, whose lands, winds and waters we all now share. With me at the table is Pat Weir, the member for Condamine and deputy chair. Via videoconference we have Mr Bryson Head, the member for Callide; and Ms Joan Pease, the member for Lytton. Mr Trevor Watts, the member for Toowoomba North, is appearing via teleconference. Mr Les Walker, the member for Mundingburra, is a late apology.

This briefing is a proceeding of the Queensland parliament and is subject to the parliament's standing rules and orders. Only the committee and invited witnesses may participate in the proceedings. Witnesses are not required to give evidence under oath or affirmation, but I remind witnesses that intentionally misleading the committee is a serious offence. You have previously been provided with a copy of instructions to witnesses so we will take those as read. I also remind any members of the public that they may be excluded from the briefing at the discretion of the committee. I remind committee members that departmental officers are here to provide factual or technical information. Questions seeking an opinion about policy should be directed to the minister or left to debate on the floor of the House.

These proceedings are being recorded and broadcast live on the parliament's website. Media may be present and are subject to the committee's media rules and the chair's direction at all times. You may be filmed or photographed during the proceedings and images may also appear on the parliament's website or social media pages. I ask everyone to please turn their mobile phones off or to silent mode.

FERRIS, Mr Shaun, Deputy Director-General, Georesources, Department of Resources

McCARTNEY, Ms Roisin, Director, Georesources Policy, Georesources, Department of Resources

PANDEY, Mr Sanjeev, Executive Director, Office of Groundwater Impact Assessment, Department of Resources

WENCK, Ms Amber, Acting Director, Georesources Policy, Georesources, Department of Resources

CHAIR: Welcome. I will hand over to you for a brief opening statement and then I am sure the committee will have lots of questions for you.

Mr Ferris: Thank you, Chair and committee, for the invitation to provide a further briefing on the Mineral and Energy Resources and Other Legislation Amendment Bill 2024. I would also like to begin by acknowledging the traditional owners of the land on which we meet today, the Turrbal and Yagara people, and pay my respects to elders past, present and emerging.

I will start by saying that it is clear from this parliamentary committee process that many of the stakeholders were not satisfied with the extent of consultation undertaken prior to the bill being introduced. Although no consultation draft of the bill was released prior to introduction, which our stakeholders have come to expect, the department did undertake detailed consultation with stakeholders that has informed the drafting of this bill. Initial consultation started almost 11 months ago, culminating in the release of a suite of consultation papers in September of last year inviting feedback on the proposed legislative reforms. Public consultation ran for a period of eight weeks. In addition, the Department of Resources received a total of 148 submissions to these papers. It was very comprehensive. Submissions were received from landholders; community members;

representatives of the agricultural, resources and energy sectors; the legal and local government sectors; and community and environmental groups. The department has also held 24 briefing sessions on the consultation papers for the agriculture and resources industries, including peak bodies, landholders and environmental and local government groups. Of course, as is our normal operating style, Resources will continue to work with all of these important stakeholders to develop the necessary regulatory and technical requirements for implementing the amendments in the bill should, of course, the legislation be passed by parliament.

Coexistence of agricultural and resource interests is challenging but vital. It requires the balancing of interests to support both industries, each of which is very important to people's livelihoods, their communities and the broader Queensland economy. When issues like CSG induced subsidence emerge, coexistence may be strained. CSG induced subsidence poses a complex challenge that requires careful management to balance economic development, the environment, agricultural lands and community wellbeing. Most stakeholders have indicated support of a framework to address CSG induced subsidence but, of course, have some concerns about details in the framework in the bill. These have been addressed in full in the department's response to the committee but I would like to take the opportunity to clarify one particular issue that has been raised.

An issue has been raised a number of times through this inquiry, which is how the proposed subsidence management framework interacts with the Regional Planning Interests Act. The subsidence management framework is a risk-based framework designed to manage the impacts of CSG induced subsidence. It is has tended to work alongside existing legislation and resource activity approvals. It is not intended to bypass protection of priority agricultural areas or strategic cropping areas under the Regional Planning Interests Act. While both frameworks remain separate to each other, both will apply where relevant.

Also, the bill has not made any changes to the Regional Planning Interests Act relating to CSG induced subsidence, including the exemptions under sections 22 and 24 of the Regional Planning Interests Act. The Department of Housing, Local Government, Planning and Public Works, the department responsible for administering the Regional Planning Interests Act, will work with us as the Department of Resources and also the Department of Agriculture and Fisheries to consider the interaction between the regulatory frameworks to ensure the proposed subsidence management framework complements the existing protections and assessment processes relating to subsidence under the RPI Act.

The department has also released feedback concerning the proposed strategic land release amendments. Some stakeholders have raised concerns that the amendments will disadvantage junior explorers or make exploration more costly and time-consuming. The department is committed to fostering a robust critical minerals industry, exploring new and existing mineral deposits in an expedient and responsible way and a way that maximises investment and economic development opportunities. The current framework, which requires the automatic release of relinquished land after two months, may on some occasions pose a challenge to achieving these objectives. The proposed amendment simply provides the minister with flexibility to decide when and how relinquished land should be re-released. This will allow for a strategic release of land when it is in the best interests of the state to do so. This does not mean that in all circumstances where land is relinquished it will become part of the land release. I think that is an important point to note. It is not intended to disadvantage specific groups of explorers either.

In conclusion, thank you again for the opportunity to appear today. My team and I would be happy to answer any questions that the committee have.

CHAIR: Terrific. Thank you very much, Mr Ferris.

Mr WEIR: Obviously, you are well aware of the issues that have been raised. You said that there has been extensive consultation. What we are finding is that the consultation probably has not been widely agreed to or people are not happy with the outcome based on the consultation that happened. They believed that the consultation was going in a different direction. OGIA has come up a lot, particularly around baseline assessments and where we start from there and the role that OGIA will play. I have expressed my concerns for Sanjeev and his team without the support of a board or some other body to go back to with that evidence, whether it is going to have an impact on that area or not. I have my doubts as to how this is going to work. If you can explain to me what support OGIA is going to get and the baseline monitoring that people can trust and believe in, that would be helpful.

Mr Pandey: There are two different questions: one is about baseline and the other is about the governance arrangement. I think that is the way I take it. Maybe I can touch on the governance side first.

In the groundwater space, because subsidence is the proposed framework, I can explain how the governance arrangement is working as of now. Maybe I can break it down into a couple of different elements. When it comes to all non-technical matters, like corporate or finance or HR support, we are sitting within the Department of Regional Development, Manufacturing and Water, DRDMW. They provide all the corporate support to us. Because we are an independent office, all the technical work that we do does not go through the DG and the chief executive of DRDMW. The work that we do goes to the Department of Environment, Science and Innovation, so the chief executive of the department of environment and science is the one who signs off on the reports that we do and they approve the reports. That is on that side. That is also the logic for OGIA sitting away from DESI, to maintain that independence.

On top of that, we also have, which effectively works as a de facto board, an expenditure advisory committee. This is a statutory committee that has been set up. That committee has members from the agricultural sector as well as the CSG sector. It is chaired by an independent chair. It has members from AgForce, QFF, QRC and APEA, now AEP. It has all of those members. We actually present the different activities that we are doing to that committee and I seek endorsement for the budget saying, 'This is a research program.' Being a non-scientific committee, they do not interfere with our scientific programs. They are there to look at whether the budget is being spent where it should be spent and whether we are properly funded. That is on the non-technical side.

On top of that, the fourth element is that I do have an informal technical reference group that I have established. The reason I say 'informal' is because we do not name those experts and members of the technical panel. Their names have not been available in public. As you would appreciate, this started around 2010 with CSG, so it is for fear of any intimidation and that kind of thing. We have been running that informally. With all of the technical work that they do, be it modelling and all the technical matters, we seek peer review in the process. In fact, when we do an underground water impact report there is always a statement that, for example, 'this model has been independently audited or reviewed by technical experts'. There are statements along those lines. With that, I think what is proposed in the subsidence management framework is to actually formalise that kind of technical peer review process. That is the way I see it. Those are all of the government departments that I report to. Does that answer your question?

Mr WEIR: It helps. Who does the peer review? Is it Georesources? Who does that?

Mr Pandey: Because we are an independent office to do independent science, the peer review is done by technical experts, not by the department. For example, in the groundwater space, when we submit an underground impact report to the department of environment and science, they have security, in a way, that the science has been done independently and, on top, the scientific methods have been peer reviewed by those who have not been directly involved with that work. On that basis, the chief executive makes a decision whether to approve or not approve that report. Of course, we go through the consultation process as well so all of that work is consulted upon before we finalise the report.

Mr WEIR: Subsidence has not been an issue until it has been on the Downs, on that prime agricultural land. Has a baseline been done through the Central Downs—through the Dalby area—and is it rigorous and does it stand up to challenge?

Mr Pandey: To answer that question I will give a little bit of context on what we mean by baseline, particularly in the context of subsidence. A baseline is actually knowing what a particular landform, or farm field, looks like at a particular time and obviously before the CSG production started or before any subsidence from CSG did affect that farm. In that context we can look at the Condamine area in two broad areas. If you look at the Kupunn area, the CSG induced subsidence in that area did come into play quite some time back—in 2008, 2009, particularly around 2011-12. That area is already affected by CSG induced subsidence. The rest of the Condamine area is not.

Coming back to how we get the baselines, what we have proposed in the work that we did as part of the underground water impact report is to map out landform based on the LiDAR survey. We do have LiDAR surveys going back from 2015. We have a couple of LiDAR surveys starting from 2015 in the Kupunn area as well as the rest of the Condamine, so we can use that. For outside the Kupunn area we would have definitely very good quality baseline information. There is a complication in the Kupunn area because the CSG induced subsidence already did occur there, so all we can do is indirectly make inferences and indirectly estimate what that baseline landform looked like.

What we are doing at this point in time is running a pilot project. From LiDAR surveys we have the current-day surface. From the monitoring and modelling we have established how much CSG subsidence has already occurred since going back from 2005, so we can add that subsidence to

come back to what the pre-CSG landform might have looked like. To do that, we are not actually going to rely on a single landform, because you have multiple LiDAR surveys. Without going into too much technicality, we are running probabilistic analysis so we can get a very good probabilistic distribution of landform before CSG production started.

Mr WEIR: Some are questioning the accuracy of LiDAR.

CHAIR: We heard that on a number of occasions.

Mr Pandey: On the question of the accuracy of LiDAR, it all depends on the purpose we are using LiDAR for. Can I just take a step back, go back to the monitoring and just explain a little bit about monitoring? First of all, you cannot directly measure or monitor subsidence. That is not possible in the majority of instances. What you actually do monitor is how the ground is moving, and that is what we call ground movement. Ground does move because of soil moisture balance, as all the farmers know. In fact, we have seen about 25 to 30 millimetres in movement up and down.

CHAIR: That movement, CSG aside, could happen normally in day-to-day agricultural activity?

Mr Pandey: Absolutely. It does happen. That is one movement. There are climatic factors as well because of atmospheric pressures and things like that. When you superimpose CSG into subsidence, it can all get mixed up. If there is CSG, you are measuring ground movement which has CSG signal as well as non-CSG signal. You have to go and unpack that data.

With that context, coming back to how we monitor ground motion, there are two different techniques. We want to monitor two things. One is how the landform looked at any given point in time—for example, what it looked like in 2016 or 2017 and so on. The other thing we want to monitor is how ground is moving at a particular point. Unfortunately, there is not a single scientific method that can do both. That is where we use two different methods to measure what the landform looks like at a particular given point in time. We use LiDAR—and that is where LiDAR comes into play—but if we want to see how ground is moving then we use a different technique called 'inSAR'. That is a remote-sensing technique. Every six or seven days, the satellites go through and you get very good quality data from that.

With that context, LiDAR accuracy has been quoted at about 50 millimetres, but that does not matter because we are not saying we use LiDAR for that purpose. LiDAR should never be used to compare two different surveys and see how at a point ground has moved, because that is where that 50-millimetre accuracy does come into play. What we say LiDAR should be used for is a technical term called relative accuracy. That means it can very reasonably accurately let you define what the slope change is. If you take two different LiDAR surveys, which could be 100 millimetres apart, if the ground has not moved then both of them will be giving you exactly the same slope. That is where we are saying LiDAR is good to work out how the drainage is changing between two different points, how the slopes are changing, but not how much absolutely the ground has moved. That is where the confusion is coming. Some have said, because it can be 50 millimetres off, 'How can you measure subsidence? It is not designed for that purpose.' We never said that it should be used for that purpose, if that answers that question.

Mr WEIR: You have heard people talk about the Horrane Fault. How universal is that movement going to be? We have landowners say that it is just going to all move at once and others say that, no, it will not; it will be patchy.

Mr Pandey: You mean the Horrane Fault or the subsidence in general?

Mr WEIR: Subsidence.

Mr Pandey: I was going through some transcripts and there has been some confusion about uniformity and non-uniformity. We have never said that it is uniform, but it is very complex. I explained last time that when you have a CSG well there will be more subsidence around the CSG well, within two to three years it will go up to around two kilometres and then after that it is just less than five millimetres or so. In reality, we do not get that situation. In reality, the number of different CSG wells—they are coming all around so there is a lot of interference and also they are coming at different times, so it cannot be uniform. What does happen is: as the CSG development keeps progressing, initially there will be more subsidence and with time it will kind of settle down and it will get relatively—and that is the word we have used—uniform. Coming back to the point around the Horrane Fault, that is where we do believe that we need to pay particular attention and that is where we launched that airborne electromagnetic survey. We have that information and at this point in time we are processing that information.

CHAIR: From the point of installation of the well, if you had a chart you would see it plateau over a period of time in terms of what the movement looks like?

Mr Pandey: Correct, yes.

Mr Ferris: There was another element to the question from the deputy chair which was around consultation. I addressed that in brief in my opening statement, but I thought it would be worthwhile just reflecting on that. The framework that has been developed around subsidence came on the back of a very detailed piece of work that the GasFields Commission completed and finalised, handing a report to government in November 2022. If we wind in the consultation and layer that together with the report handed down in November 2022, that really framed up and identified the framework that we have replicated in the bill that we have consulted on and that we consulted on as part of the suite of consultation papers. We recognise that it is complex—because of some of the issues that are being ventilated and asked here now. I am glad that I have Sanjeev here to answer some of those detailed questions. The framework is based on that GasFields Commission work that landed in November 2022. We have replicated that in the bill. We have consulted through that process.

CHAIR: Based on the feedback we have had from witnesses, it is important that you can see what is going to potentially play out in a judicial process or claims process. It is technical, as we have just heard. There needs to be a very clear understanding that the central point of true data is vested with what you are doing and what that process looks like. I have not heard anybody explain that to us like we have just heard you explain that.

Mr Ferris: As I say, Sanjeev and OGIA, who do some fantastic work around underground water impact reports and the proposal to replicate that through the subsidence impacts reports, are best placed to answer the technical questions here but also to do the technical work to give companies, community and landholders confidence around the science that then drives the framework of management of subsidence impacts.

Mr HEAD: Thank you, everyone, for being here. That was helpful. The deputy chair asked a few questions that were all on our minds. Further to the data measurement such as LiDAR, there are a couple of different things you are using. I know that satellite also plays a part in the data. Is OGIA using RTK on-the-ground measurements to support those LiDAR surveys along the way? It was in 2015, I understand, that OGIA started receiving LiDAR data. Could you confirm that and whether there is RTK or other on-the-ground measurements, data points, that you are using and going back to at certain points in time to further firm up your elevation modelling?

Mr Pandey: First up I will make a clarification. We have LiDAR data. It is not actually collected by us. The LiDAR data is collected by Arrow Energy. They do provide data to us and we run QA and QC in that process. That data gets submitted to us just like a lot of other monitoring data that is collected by a tenant holder.

Going back to the other question about RTK survey, we came up into the subsidence space pretty much around 2020 because that is when the assessments were made, and this was only for the purpose of environmental values assessment. We had no jurisdiction to look at impacts on agricultural land. That is why this framework is coming. In 2020 we did launch a specific project to test that very thing, which is to compare data from RTK, to compare data from terrestrial GPS survey, to compare data from drone LiDAR and to compare data from airborne LiDAR. We collected in one farm, Stuart Armitage's farm. In that farm we collected data from all these four different methods. We compared that. We did run a number of engagements with landholders and in the end we realised that the best and the highest resolution data and the most efficient is airborne LiDAR. Airborne LiDAR had a resolution of a much higher data density and was a lot more useful than even the terrestrial GPS survey and drone LiDAR. Yes, we did compare all that and the finding was that the airborne LiDAR is the best method.

Mr HEAD: That LiDAR is plus or minus five centimetres to I think it is 67 per cent accuracy. That figure is off the top of my head from what Arrow said; is that correct?

Mr Pandey: That is correct. That is what I was referring to before, that that is the vertical accuracy. What that basically means is that if you have done one LiDAR survey and a few days later you come and do another LiDAR survey looking at exactly a particular point, even if the ground has not moved, nothing has moved, they might give you readings which could be 50 millimetres apart, so that is the accuracy. As I said, we are not using LiDAR for that purpose to work out how the ground is moving vertically. What we are trying to establish from a particular LiDAR is where the slope is, how the drainage is and how much is the slope. Through that process, if the ground has not moved, then both LiDAR surveys will give you exactly the same slope.

Mr WATTS: Can I clarify if you said 15 or 50 millimetres?

Mr Pandey: The member was referring to 50 millimetres. I think that is what Arrow had mentioned, and that is what we also understand; that is the vertical accuracy of LiDAR. However, we are not using it for that purpose. I am not recommending it, either.

Mr HEAD: Given this is going to be a very long-term issue and potentially a lot more development over a large area, I understand you ran a test on one property with various data points to compare, and I understand gas field subsidence in particular is more long-term going to be regional scale than other mining activities. For the sake of good data and the long-term impacts of this—sorry, I am trying to ask a question that is not asking for an opinion—are you confident that it would stand up in court in peer review with LiDAR alone into the future as the most appropriate scientific method, or should we also be looking at ensuring other data is collected along the way?

Mr Pandey: I cannot comment on the court process, obviously, but I can say that everything we have done so far seems to suggest that the LiDAR data is very useful for the purpose we are intending to use it and the purpose we are recommending. Having said that, as part of the pilot project we are running, we are also in the process of seeking some expert peer review of the process, and we will be double-checking through the peer review process that this is what our findings are and that they are in sync with their understanding as well. We will be going through the peer review process in the future.

Mr WATTS: I want to centre my question on the Condamine Alluvium. I am interested in potential environmental risks that might be unique to that alluvium area and (a) how we mitigate them and (b) how the department envisages managing what happens if those environmental consequences we have heard about start to unfold.

Mr Pandey: That is an element for the department, but what I can comment on is that, as part of our underground water impact report, that has been in the scope and that is where we did all the regional risk subsidence assessment. We did say that is not appropriate for farm scale because it was a regional scale and, as part of that, we do identify impact on environmental values. That assessment then is considered by the department of environment and science in terms of how to manage those environmental impacts.

Mr WATTS: So I am clear, that is the subsidence side of it, but what about the actual water aquifer and potential for it to be breached or contaminated?

Mr Pandey: The impact on groundwater in terms of the quantity of groundwater that we have assessed as part of the underground water impact report—and that is documented in there; that is in the existing framework outside of the subsidence framework—we do not look at the contamination aspect because that is not part of our scope. That is not what we were meant to look at, so I cannot comment on that aspect.

Mr Ferris: I made a comment in my brief opening statement that this framework will sit beside other frameworks. For example—and Sanjeev has just mentioned this—the separate underground water impact report makes good provisions in relation to groundwater that would apply to cumulative management areas which will sit beside and be separate to the subsidence management framework. The question there was around cross-contamination of aquifers, for example, in relation to the implementation or the construction of petroleum and gas wells. We have a very high standard of design construction and decommissioning for petroleum and gas wells under a code that all the companies would need to comply with, separate again to the framework in relation to subsidence management. There is a level of confidence around that particular code and it is reviewed on a periodic basis to bring in additional and new requirements that may be appropriate for the construction and decommissioning of petroleum and gas wells.

Mr WATTS: I understand a new well and some of the stringent rules around that. I am interested in what would happen with historical wells. As the pressures change in these aquifers, what happens to historical wells that may remain unidentified but have the risk for cross-contamination?

Mr WEIR: If I can give you some clarity around what Trevor is asking, as I grew up in that area, in the late sixties, early seventies, a lot of exploration wells went in for coal. There were a lot. We are talking 100-odd; I have heard numbers of 128. The records of where they are have disappeared. Drillers in the game have said exactly what you just said, Mr Ferris: they will back the integrity of the wells they are drilling today, but their concern, they have told me, is that when you extract the water out of the walloons and the gas becomes mobile it will find these old wells, and there is a high risk that it will then find its way into the alluvium. That is what Trevor is alluding to. That is what has been raised and that is from people in the game drilling gas wells.

Mr Ferris: That is a very good clarification around the context of the question. What I would say is that this framework is about the subsidence associated with the depressurisation and the progression of development of coal seam gas in this part of Queensland. It is not related to the historic wells, whether they be a petroleum and gas well that we are unaware of, or a farmer might be unaware of, or a former coal exploration bore. We do, from time to time, have reports of historic coal bores, for example, across gas fields that may start to flow water as a result of broader activities or recharge or gas, and we, as a department, in those circumstances, have variously plugged in abandoned wells. However, I come back to the bill and the committee process here. This bill was very much about the subsidence management framework.

CHAIR: Possibly that is outside of this domain but still a worthy question. Thank you for giving us as much information as you could on that. We appreciate it.

Ms PEASE: I want to get a little bit of clarity, and I apologise if you have already answered this. Are you working on developing the baseline from historical data and current data?

Mr Pandey: Yes. For the areas that are already affected by CSG induced subsidence, we are working through a method through which we can estimate the baseline.

Ms PEASE: In terms of that baseline, that is going to remain in place forever. It is going to go on from that. This will be the mark in the sand. What will happen into the future? Are you going to continue to monitor and measure the land? If you are, how regularly would you monitor it to see if there has been subsidence and who will cover the cost?

Mr Pandey: I will answer that in two parts. One is what is currently happening and what might happen in the future. The monitoring requirement currently is sitting as part of the underground water impact report, as I was saying, for the environmental value assessment. In the report we did in 2021, we identified two monitoring requirements, as we were saying before—InSAR and LiDAR. What we said for InSAR is that OGIA would directly acquire the data and we will keep monitoring, and that is exactly what we are doing. We have gone directly to the provider of the data and secured the data. We have already reported that and we will keep reporting in the future as well.

When it comes to LiDAR, what we outlined there with Arrow or the tenure holders of the Condamine Alluvium, they must do at least one LiDAR survey per year and during a dry period, because it is not that effective when it is wet and when there is water sitting on the paddocks as well. Since then, there have been a number of conversations and Arrow is actually doing two LiDAR surveys, and that information gets lodged with OGIA. That is the current arrangement we have and that will continue. Then when we go to the subsidence impact report, when we are doing the management strategy based on that we will determine what additional monitoring requirement will be there, but we do not foresee these arrangements changing in any shape or form and, if anything, it is going to be tightened further.

Ms PEASE: Can you clarify that the mining company that is undertaking the mines is providing you with the data?

Mr Pandey: Yes. In the Condamine Alluvium, the CSG tenure holder, which is Arrow Energy, is providing LiDAR data to us. We have made the data available on the website as well so that the landholder can download. We have also published it. We have upoaded the tool where landholders can go and draw a line and draw different profiles to see which way the land is, and the slope is, and do all those comparisons, so that is already in the public domain.

Ms PEASE: If a property owner feels there has been subsidence, how do they prove that to you?

Mr Pandey: I think that goes back to the framework and what is proposed in there. I will give my answer from a technical perspective and then the department can clarify it further. From a technical perspective, the idea is that we will do the regional risk assessment. Based on that we would identify the farms that are likely to be at higher risk and then the tenure holder will go and do the detailed assessment of those farms. We are currently in the process of developing all those modellings, tools and techniques that would ultimately become part of those guidelines and then it will go to them.

In terms of any landholder who is not part of the higher risk area, there is a provision where the landholder can come to the department and say, 'These are the issues.' They have to provide certain information to trigger a farm-scale assessment, regardless of the regional risk assessment. That is my read, but perhaps that can be better clarified by the department.

Mr Ferris: What I would say is that landholders are involved all through the process.

CHAIR: Is that landholders that are in the agreement with the energy provider?

Mr Ferris: Landholders that are within the area that have been identified in the subsidence impact report as requiring a farm field assessment, and then if that is more than minor, that triggers the need for a subsidence management plan. All through that process, the landholders are involved in the discussions, negotiations and consultations.

CHAIR: You might not necessarily have a well on your property but you will be part of that process?

Mr Ferris: I think that is an important point. The farm field assessments and the subsidence management plan, if required, are not just to those landholders who have infrastructure on their property. It can be an adjacent property, and Sanjeev has outlined before that in circumstances where gas field development occurs, yes, at the well there is potential for some subsidence impacts and then that moves further and gets lesser as you move away from it. It is not restricted to landholders that have the infrastructure underneath their properties.

CHAIR: Thank you for that clarification. With regard to the pilot project that is looking at those two pieces of data and how that goes forward, when does the pilot project complete and what does validation of that look like?

Mr Pandey: The pilot project is in two phases. The first phase is to do all of the technical assessment in terms of looking at different data sets. We are doing modelling. We are also doing all the overland flow modelling in the process. It is gelling it all together to work out what is the best way to map out changes to landform. We have picked up areas where there has been CSG development for the last 10 years versus areas where there has been no development so that we can compare those. The first stage is to map out the joint changes. We are very close to that. We expect that work to be finalised around July-August and then the Department of Agriculture and Fisheries, DAF, will look at the agri-economic impact or agri-economic consequences of the change that we have noted in mapping phase 1. At this point in time I am not sure what the time frame is for DAF but our work will be wrapped up around July-August.

CHAIR: Is there a peer review process then of the pilot to firmly embed in everybody's mind that that is the way to go?

Mr Pandey: Correct. We have kickstarted the peer review process. It might take a bit longer, but the process is underway.

Mr WEIR: You may have to take this on notice, but when did the department first receive advice from Geoscience Australia or other official bodies recommending the monitoring of gas field subsidence? That was a question Bryson was keen to ask, but you probably have to take that on notice, given the time, I would say.

CHAIR: That would be terrific because I have one final question before we wrap up and I know we have gone over time.

Mr Ferris: I am happy to take that one on notice. I do not have that information at hand, Deputy Chair. Apologies.

CHAIR: That is fine. With regard to the fossicking licences, it was raised that there may be people in Winton who may want to go out and take their kids fossicking. What does the licensing requirement look like for a family that might be going out to spend half a day doing that?

Ms McCartney: You can obtain a fossicking licence online. You can go to our departmental website to obtain that. You can fossick in areas that have general permission. There may be other requirements. It is listed on our website about—

CHAIR: That is a current requirement anyway, so this legislation is not changing anything in that regard.

Ms McCartney: Correct.

CHAIR: If you are a family person who wants to take your kids out, you would need to do that?

Mr WEIR: You do not need to be part of a club; that was just 'as well', when I was reading through it?

Ms McCartney: Correct.

Mr Ferris: We recognise that fossicking is an important part of both our tourism and economic activities across the state. It does not change that. It is not that you must be a member of a club or affiliated with an association; you can be an individual or a family.

CHAIR: Brilliant. That covers all my questions. Thank you for sharing that information. There was one question taken on notice. If we can get a response to that back by 5 pm on Monday, 27 May, that would be terrific.

Mr Ferris: Sorry, Deputy Chair, can I clarify so we can get the answer to it very quickly. That was in relation to when Geoscience Australia—

Mr WEIR: When did the department first receive advice from Geoscience Australia or other official bodies recommending the monitoring of gas field subsidence?

Mr Ferris: We will return that answer very quickly, or as quickly as we can.

CHAIR: Excellent. I declare this public hearing closed. Thank you.

The committee adjourned at 3.49 pm.