MINUTES:	SANTOS COMMUNITY COMMITTEE – UPPER HUNTER Tuesday 30 July, 2013 Scone Motor Inn Conference Room
Attendance:	David Ross (Chair), Emma Ridley, Wayne Bedggood, Paula Stevenson, Kathy Burns, Graham Brown, Glenn Toogood, Don Eather, Sam Crafter, Peter Bishop, Peter Baker (SEWPAC - Sustainability, Environment, Water, Population and Communities), Polly Yuille
Apology:	Steve Guihot (resigned), Sean Constable, Peter Miller

	Discussion	**Action/By Whom**
1. Welcome	The Chair opened the meeting at 6.22 pm. SG has tendered his resignation to the CCC as he no longer has the time to devote to the committee. In parting, SG wants to strongly register that the water study group and its findings continue to be considered by Santos. (Letter attached). DR thanked SG for contributions. SG will make a recommendation on his replacement following the next meeting of the Kingdon Ponds Water Users Group.	DR to send a letter on behalf of the CCC to thank SG for his participation in the CCC thus far. SG to recommend replacement following next meeting of Kingdon
2 Previous Minutes	GB: Is there baseline methane testing in the Upper Hunter?	

	GT: No. There is around Pilliga. Don't do it now because the data too old. Once exploration is in place, then we'll be getting the baseline data in place as well. Would still take a few weeks to establish that data. Minutes approved.	Ponds Water Users Group.
3. Declaration of Interest	Nil	
4.**Discssion on SEWPAC's Bioregional Assessment Program**	Peter Baker introduces himself as the principal science advisor with the Office of Water Science. His primary role is to make sure things aren't scientifically naive. The Office was established to support independent scientific studies to assess positive or negative impacts on those particular industries (coal and coal seam gas). PB: There are two aspects to our research programmes. Firstly, we do bioregional assessments but we also do separate research programmes looking at specific issues. We've done a number of scientific reviews of hydraulic fracturing, of co-producing aquifer connectivity, Mount Springs in Great Artesian Basin and getting baseline info on those. We've also done work on subsidence from long haul mining. Our Office has been asked to deliver 6 bioregional assessments to provide knowledge for the independent committee to help with their advice. The information will be available to everybody. Santos, state governments, CCCs etc; It is our hope that you won't get the usual arguments about differences in data. Instead, the discussion will come around interpretation or the models that were used. One of real issues that often happens with bioregional assessments is that they are stand alone or a one off and can't be replicated because the data's not there. If we're	

going to come back in this region in 5 years to re-do the bioregional assessment, we wouldn't have to go back to first principals. We can build on work that's already done.

SLIDESHOW PRESENTATION (attached)

Context for bioregional assessments:

Will provide baseline information on things like surface and ground water, aquifers. Anything that might be used to understand how system works: could include seismic data, geological data.

Where coalmining and CSG have significant impact on water sources it will now come under the *Environment Protection and Biodiversity Act 1999*.

Also want to make it clear that we are not regulators, we purely provide advice.

Bioregional Assessment definition:

A scientific analysis of ecology, hydrology, geology and hydrogeology of a bioregion with explicit assessment of direct, indirect and cumulative impacts of coal seam gas and coal mining development on water resources.

If there's not going to be an impact on a water resource, it's not our mandate. Eg coal dust doesn't come under our brief unless it is shown to have impact on water resource.

Focus to date:

Methodology: We have worked with CSIRO and Geoscience Australia on how the bioregional assessments are to be conducted. We've devised a generic methodology that will be tailored to suit individual regions. What we do here will be different to Namoi or South Australia. It has been subjected to national and international peer review (16 in total plus four states).

Focuses on impact on receptors. Rather than saying "I have coal mining development in this area it'll impact the area". This study will say "what are the assets, can I trace a causal pathway back to that development or not?"

A consortium leads the bioregional assessment. We also use academics and consultants as and when required.

The Bureau of Meteorology (BOM) is also developing an information platform that will include data, reports and other relevant information that come out of the bioregional assessments. The hope is to get it to the point where could play with models on that system.

We don't think we will achieve everything detailed in methodology in any area over the next 3 years. We just won't have the information to get to that end result. But might come back in 5 years time, it is an ongoing process so eventually we'll get to that point.

As one study is released, it will become publically available. Information will increase incrementally.

Information will come from current and new data sources. We've had some fantastic discussions with industry and they've shown a great willingness to provide data if it

fits in with our exploration programmes. If there's info we need, they provide it. We're taking in new data sources as well.

We're actually using a petroleum systems approach to it. Water assessment rarely uses seismic lines or geophysical logs. We'll be applying that info to this approach. Given us a better handle on structures, understand better how ground water moves through structures.

Office of Water Science Bioregional Assessment priority areas:

Bioregional assessments are being conducted in six areas. The Upper Hunter falls into the Northern Sydney Basin. Bioregional assessments are currently being conducted and they are at various levels of development. The four priority areas: Clarence, Gloucester, Namoi and the Galilee. Initial products will come out first in those areas and the methodology applying is a world first. People have said to us 'if you can pull this off, you're doing something significant.' Doing it in a staggered way allows us to test how the methodology can be applied. Work has started in all areas. The South Australian Government has been working for 12 months on projects that will feed into the bioregional assessments.

DR: To liaise with Peter Baker about way for UH-SCCC to have an input into bioregional assessment

Pink on the map represents geological basins that contain coal. Can't have CSG or coal mining where there's not pink. There's a maximum boundary where such development could occur.

Green on the map reflects two coal basins sitting on top of each other.

The brown is where there's brown coal. Jury out. *2 types of gas: biogenic gas and thermogenic gas.* Brown coal = biogenic gas.

Receptors

Assets might be a wetland, receptor might be a bug. Assets will define what the receptors used are. In defining the assets we have gone to Catchment Management Authorities, asked them what their water dependent assets are. Some of them are giving us 38 others are giving us 58,000. One Catchment Management Authority might've said whole of river is the asset, another one might break it up into river reaches. We want to be comparing apples with apples.

Irrigation area might be the asset and the individual irrigation off-take the receptor. They can be economic and cultural as well.

Bioregional assessment methodology (wagon wheel):

We'll look at the assets and receptors and make a preliminary assessment on the likely risks. This allows us to jump into green and say to modellers this is what we believe the risks are. What sort of models do you have that will inform that? They might say can't model that. Come back into risk analysis and they modify what can be done. Once there's an agreement, move into blue: contextual info. What data is available? Acquire the data that we need not the data that we can. Not all data that's available is necessary for the study.

Resource easement: where is the coal, what does it look like, how thick is it, can you extract gas or mine coal? Once finalised the receptor and asset register we will come out and say 'have we got this right?' These are the receptors we've determined from this, have we missed any? Often with these assessments, not only coming back and talking to community but to industry, state government and we'll be looking for a consensus as we go through the process. The data register will also come back and check that we've not missed anything. Analysis: what are water level changes, water

quality changes? Getting a feel for how the dynamics of the system works. Leads into conceptual modelling. Team comes up with opinion of how water moves through landscape. Everyone will have an opinion on this and we will hold workshops and we'll be presenting what we think and what the likely impact will be on those receptors. If we go to numerical modelling phase, we will have an agreement on conceptual model, then we'll go into impact analysis and then come back and talk to people. Direct, impact, and cumulative impact. Direct impact is when water in wetland goes down by 1 metre. Indirect: wading bird likes to build on the river bank, but now that it has dropped by 1 metre it is too far away from nesting cover. Cumulative: combination of other two. Risk analysis: likelihood and consequence. We can provide the scientific basis for those discussions to take place. We will identify areas where there is not information so that further monitoring can take place and we will have an increased knowledge base next time around.

Materiality

If we can't measure a material impact on a receptor – it's not included. Got to be able to measure it. If a coal mine is going to take some surface water from the Namoi that would mean that less water into Lake Alexandrina, we can't measure what that difference will be. Part of that will have to be based on expert opinion.

Uncertainty analysis

We can say: we think this is the likely impact and risk plus or minus 10%. Ground water modellers will have to identify their uncertainties. Primary purpose of the bioregional assessment is to help committee with their advice, need to be aware that in some cases the uncertainty might be so large that we actually don't know what's going to happen. The assessment will then go to the regulator who needs to make that decision. Gives both sides of the fence an understanding of what they need to

do. It identifies the issue that an area might need to worry about and then industry knows what they might need to do. They can make the mitigations or modifications so that the impact doesn't happen. It will also tell us that we need more monitoring or more data, it will tell us where we need to have that data.

PRESENTATION CONCLUDES

ER: Thanks, very interesting and layman's language! You indicated you'd be using consultants for certain aspects of the bioregional assessments, how do you identify those consultants? Because there are concerns for the community around conflicts of interest.

PB: There are consultants that've worked in a particular area for years. For instance there is a hydro geologist with over 30 years experience in the Murray Darling basin, not to employ those experts would be remiss of us. My biggest concern is getting the person we want, not being fobbed off with a junior. We already have a handle on who we need with the right level of experience and expertise in those six areas.

ER: If community had a problem with a consultant…… just something to be aware of.

PB: One of my other roles in this process is to coordinate the synthesis of information for the (IESC) committee. An Environmental Impact Statement might be 20,000 pages it is my job to flag what they need to read and the issues. In that process we've become aware of certain consultants and where there may be issues.

ER: With a lot of mines in the area, the seismic work they do. Would you go to them for their seismic data?

PB: Met with Santos team in Gunnedah 2 weeks ago and have to say Santos most

helpful.

ER: I'm a little concerned about the quality of data, your first point of call is the CMA – you're reliant on CMA until you consult on those different phases?

PB: CMA is a good starting point for that information. There are variations across the country in CMA but overall they're a good starting point.

P Bishop: With impacts on different receptors, how do you prioritise which receptors are more important?

PB: Wouldn't prioritise, just looking for receptors which we can measure. In one area there might only be 1, another might be 100. Prioritise is not a world I'd use.

P Bishop: So it could be anything from a bird nesting to economic impact on the area?

PB: If we had an irrigation area we could measure fluctuations in water table.

P Bishop: So if beef production is limited because their drinking water is affected, are you able to measure the amount of beef coming off the land because there's no water?

PB: You're probably taking it to the next step. I would be saying that ground water levels would go down by 'x' which would mean that there would be an impact on that industry. Would quantify what that would be and the likelihood of that actually occurring.

PS: You have to be able to measure a material impact, so there's no consideration given to things like social impacts?

PB: It's not inside our mandate. Our brief is purely to conduct a scientific analysis of

the impact of those two industries on the water industries in those areas.

DR: But you mentioned cultural receptors before?

PB: Mount Springs is the most obvious one. The indigenous groupings. Has to be part of it. It is too often ignored.

GB: The other obvious one would be a drop in the water, but it's outside your mandate?

PB: Let's say the depth of the aquifer is 40 metres and the impact from the industry is going to lower the water table more than 40 metres, we would be saying there is no water in that particular area due to that impact. The immediate impact is that you can't water your stock. Another example might be to say that I've got my coffee shop and I no longer have a water supply – we don't look at the direct impact on the coffee shop. We just say there is no water to the town.

WB: What's an example of an economic receptor?

PB: With an irrigation area the receptor would be an individual bore. You can apply the same methodology to beef cattle, asset is the bore, and the receptor is the production from that water.

P Bishop: Let's say we have a stock and domestic bore and you're allowed to pull 3 megs a year and I run 2000 head of cattle that generates $1million in sales. If that bore drops is that quantifiable in the assessment?

PB: We won't go to the million dollars, we'll say 'that aquifer is going to be impacted by 'x'. There are 100 bores in that aquifer, 30 of those in the draw down in that area, water level will be below the pump and there will be an impact on that'. But not to

say what that value will be. Same for rice crops etc;

P Bishop: So your definition isn't the dollar value, it is that it won't produce or it will.

PS: This is all terrific but would like to know how you justify coming in after the event when so much activity has occurred in some of these. There have already been so many bores, pilot wells flared. You come in afterwards and say there could've been a negative impact.

PB: You would need to speak to your local member. It's not for me as public servant to dictate as to when those decision are made

PS: How do you then go about rectifying any impacts that might've already have occurred?

PB: As the Commonwealth yes we are not involved unless there is a matter of national environment significance such as Mount Springs, nuclear actions, and bird species. It's (CSG management) been a state responsibility. Commonwealth now has jurisdiction. Now have to say that you've got colleagues who aren't happy about that. Didn't want that legislative change.

PS: Do you think projects should be suspended?

PB: That's for the Australian parliament to answer.

P Bishop: Will the bioregional assessments continue if there's a change in government?

PB: The coalition is not enamoured of the EPBC Act, but supports the committee and the programme it oversees. You can never say never, but I'm pretty certain this will

continue.

KB: If you had available data on water that went back a lot of years, would you use it?

PB: Yes.

KB: I've got some information from Moonan Flat that goes back 50 years, don't' know what use it would be.

PB: We will use every bit of relevant data that we can get access to. It has to be data that we need though. With the Gloucester Basin, we're actually getting the farmers' rainfall records because of the variation of rainfall because of the topographic effect. That's actually going to be quite important because the gauging station at Gloucester doesn't meet the specifications. I'm here giving you a briefing tonight, but fairly soon we'll have a project team come in and start those sort of discussions. Gloucester is three months in advance of here. We've got project teams at different stages so we don't keep on making same mistakes coming through. One of reasons BOM is the lead, they acquire a whole lot of water data, they're quality controlling it, so that's why they're doing the information platform as well. The BOM is going to be around a lot longer than who I work for.

ER: In regards to defining asset worthiness, you're not defining whether one is more valuable than another. If there's only one thing of its kind in an area how do you know that value when it's not anywhere else?

PB: It's not for us as scientists to give a value. If there was a receptor for which there was no information then that's part of the monitoring going forward so you could test materiality of impact on it. We would be saying in the bioregional assessment that there is a particular asset/receptor that we have no idea of what the impact will be. The regulator will have to take into consideration the fact that we've said 'we think

this is pretty important, won't be approved until you get more info.'

ER: With the uncertainty analysis - if it's so large that you can't predict what will happen, can you make recommendations?

PB: We provide advice as to what could happen.

ER: In that advice, when uncertainty is so large, do you apply a precautionary principal?

PB: Yes you do. We just don't know and the committee should say we should know.

ER: Because this is the federal act, with latest SEPP changes yesterday which talks about priority being given to the economical benefit of mining development (http://www.chiefscientist.nsw.gov.au/latest-news/nsw-chief-scientist-and-engineer-releases-initial-report-from-independent-review-of-coal-seam-gas-activities). What can override the water trigger?

PB: To be clear it's not a water trigger. If either of those industries is deemed to have or is likely to have a significant impact on the water resource the CSG or coal mining project will have to be referred to the Commonwealth. The company has to refer it, not the state.

P Bishop: Isn't that a grey area about what defines significant?

PB: There won't be a moratorium on activity. We're working inside the reality of it. That's why methodology is likely to involve about 200 scientists and take three years to produce a report. Information will be coming out all the time that will need to be addressed and that will need to be taken into account.

WB: Would your report ever use the terms 'significant impact'?

PB: We'd say the impact would be 'x'.

WB: Would you quantify the impact?

PB: We'd say the 'water level is going down by 'z' or the flow in this water will go up to 'a'. Becomes a value judgement.'

WB: Wouldn't an independent panel of scientific experts be able to make a judgement?

PB: We're scientists.

WB: If experts can't, who can?

PB: That's a function for the company, the state regulators and the community to determine whether it's acceptable or not. We're not doing EISs. Is a pretty easy thing, if aquifer that's 10m thick and water level going down by 5 metres, common sense tells you that it's a significant impact.

ER: That's what concerns me about SEPP. Economics outweighs any other criteria, so your work could potentially be undermined/influenced by the new SEPP?.
PB: The Federal Minister essentially has right of veto. Other thing about EPBC Act that is not often known is that if a Federal Minister gives approval and new info comes to light, he can withdraw that approval. If we've done a brilliant job and produced best model and said this was going to happen and in five years the model predictions are shown to be 500% out, the Minister can review it. There will be a number of areas where we won't be doing a model, because they can be meaningless.

P Bishop: There are four areas that have been given a priority and that you're working

on already – Longreach, Gloucester Clarence and Galilee. What determined those areas?

PB: The Government. It means that they're approximately 3 months ahead in the process. We've had these discussions in Namoi, Gloucester and Clarence already. Galilee not had, in terms of economic development drivers, Galilee most pressing. It's got 300kms long open cut mining in eastern edge, with another 350kms of long wall mining on the west.

PS: We should move to the white areas in the map!

PB: Just because there's coal somewhere doesn't mean there's mining or CSG. Coals might not be mature enough to produce gas, that's why exploration activities happen to see if there's a viable resource.

P Bishop: In regards to the priority areas being a political decision, is the other thing that's going to affect the priority of the studies related to known data? We've got a little bit of seismic data around here but other than that, there's not much available. We know that there's lots of coal and methane here. What's the potential for an assessment in this area?

PB: You already have a team working on the Upper Hunter.

PS: When you come back will it be more of an open consultation with community, councils?

PB: It'll be with CMA, councils and groups like this to get a feel for the area and what's happening. When project team comes back they'll be saying: 'this is what we plan to do in your area, how can we help, are we missing stuff?'. Wider community engagement will happen when we have actual things to say. We've got this level of

work done and this is what we're finding. Similar to Namoi water committee. They were directly involved in engagement of studies. Broader results were presented. But if you open it up to too many people/groups you reach a point where don't get any engagement.

PS: How does project team get data from land owners, is it through an ad in the paper?

PB: We go through someone like Dave.

SC: There was an open session in Gunnedah and everyone brought in data.

DE: The value of my property has been badly affected by modelling during the water sharing program. What degree of accuracy do you expect from modelling? This area has three distinct bands of water, how are you going to get all those in the modelling?

PB: That's too early to say. It's not that I'm trying not to answer you but the only area where we could begin to answer is in Namoi, because model pre-exists. Until we get a feel for the data and what we need to model, I just can't answer that question.

DE: We've got a plan for what a water study needs to look at. That's the bare minimum on what needs to be done for agriculture in this region to survive

PB: There's nothing in that document that's not in the bioregional assessment.

ER: To that detail?

PB: The only caveat is because we are looking at receptors, it won't be a model you'd use for a water sharing plan.

The bioregional assessment is not about the impact of 1 mine or 2 mines it's about

the impact on water resource. That immediately changes the flavour of it. With a scenario based model, you'd say 'these are the current mines'. We're not doing that. We're looking at the impact of industries on water resources. If we went and said they're going to develop a field in this area and did a bioregional assessment. They could quite easily move it and say the whole thing is invalid. We're not getting into specific resource modelling.

DR: (To Santos) Talking about need for regional approach. What does this mean for you, given that you'll be slowing down activity over the next 2 years?

GT: Any data we have will be fed into bioregional assessment. These assessments are by and large a great thing for industry, they're looking at a much larger scope. If want a 200 well field in, he's looking at the receptors from mining or CSG. We are starting to look at more cumulative modelling, what are the inputs and outputs. We're looking at modelling from bottom up. We'll still have to satisfy state authorities with an EIS and other regulators. Still have to do site specific modelling and we'll need to demonstrate what the impacts will be. We have got a better grasp on what the receptors are in the bioregional assessments – they'll be a great resource for us as a company.

DR: The water study that you came to discuss with this committee, is that something you'll continue with?

GT: Yes, but the question is around when we will do it. In the absence of other data we went full steam ahead but now the bioregional assessments are underway they will tick off more boxes. We will still continue to do our model.

ER: Does that negate the need for this CCC to continue?

GT: That's up to you, do you want to concentrate your efforts on the bioregional

assessments or the Santos study?

P Bishop: We think Merriwa needs water monitoring bores around it. Will you do that?

PB: We'll see where it's obvious that monitoring needs to occur, these are the suggested locations and these are the things we should be monitoring for: quality and quantity.

KB: If you work through Santos, any info that developed through Santos will be given to SEWPAC.

PB: There are 5 major CSG companies that we deal with and I'd have to say that Santos is in the top 2. This study has got a slightly different purpose, but there's nothing in the document that you've together that we wouldn't do in a bioregional assessment.

P Bishop: Our recommendations are more reflective of community sentiment. Your bioregional assessment isn't covering that so much?

PB: That's why project team would come back too. As long as it fits inside our mandate.

P Bishop: Santos could then cover anything not covered by your mandate. When do you think your team will be coming here?

PB: 4-6 weeks. The biggest sticking point is me, because I've got to be at all of them. We're rolling them out as quickly as we can.

SC: Not duplicating.

P Bishop: I suppose we felt that Santos was palming it off to them and that our study is not being considered.

PB: Our team is aware of it.

ER: What will the bioregional team be coming back within 4-6 weeks for?

PB: The initial analysis. We've got the receptors from the CMA. They're developing what they think they will do in this area at this stage.

DE: I've got misgivings about the direction this whole thing is going. If we get another plan and modelling like that (for water sharing plans), this CMA knows nothing about water in this area.

PB: They have identified a number of assets in this area. That's a good starting point.

ER: You wouldn't want to restrict consultation to groups like this.

PB: There is a point of diminishing returns if you broaden the involvement.

ER: There has to be a better way of doing it (the consultation process). From what I understand there is no community confidence in the CMA.

PB: The risk is understood, but in terms of where we're at, they're not a bad starting point. I recognise difference in CMAs but they are specifically mentioned in the Prime Minister's letter to have an involvement.

DR: (To CCC members) What does this mean for us?

ER: For me that raises some bigger issues about Santos' activity in this area and CCC continuing. My view previously was that given Santos have indicated they're going to cease activity to 2016, we shouldn't convene and that any other research should also

cease. But given bioregional assessment the only reason should reconvene is when federal team come back to consult. No need to meet for Santos until the point they come back to area.

PS: But we should convene independent of Santos to hear what bioregional assessment project team have to present.

ER: We need to see how the bioregional assessment captures our water study recommendations.

DR: (To Santos) Where are the crossovers?

GT: We're happy with the terms and conditions of the water study. I know there is still consideration required regarding an independent peer reviewer. Who you decide to do the review of it?

SC: Doesn't it make sense to work with that process and then target this to pick up the gaps.

ER: (To Santos) When does your lease expire?

SC: Have to meet work programme commitments,

PB: To maintain your PEL you still have to show some form of activity, we're looking at approaching State Government to get around that bit of legislation.

ER: If Santos is holding off on work then AGL should be holding off on work also?

SC: They're a lot more advanced.

ER: What is the value of our work if undermined by AGL work over the creek?

5. General Business

WB: AGL already have a water study in place, it's quite a comprehensive study.

General discussion about way forward for the CCC. It is agreed that it is important for the CCC to continue, meeting on an 'as needs' basis. 'As needs' will be determined by DR's liaisons with PB and CCC so that the CCC can contribute knowledge to the study's brief and ensure that recommendations from the water study brief are followed through. DR also to contact Chairman of AGL CCC to ensure their knowledge is also shared with the bioregional assessment project team.

DR: To liaise with Peter Baker about way for UH-SCCC to have an input into biogregional assessment

ER: (To Santos) How does the mining SEPP impact on you?

SC: The Chief scientist of NSW came out with interim report today: a very interim report. Have only had time to give a cursory scan to. There was a lot of stuff around better training, provisions across government and industry, better communication. It seemed to be more a summary of where it's up to rather than a defined path forward to.

DR: To make contact with AGL CCC Chair Margaret McDonald Hill about combining input into bioregional assessment through a joint CCC meeting with SEWPAC

WB: is your industry Code of Conduct finalised?

SC: Not 100% sure, will have to chase up.

SC: We've had a reorganisation within Santos and I'll be taking a step back from my role with the CCC. Annie Moodie looks after community engagement across the area and she'll be my replacement on a regular basis, starting from the next session. She'll be coming to the next meeting.

SC: To follow up on whether Industry Code of Conduct has been finalised.

DR: Thanks Sam for his involvement and input.

GB: Requests an update on the hearing taking place in Gunnedah (regarding Pilliga investigation).

SC: There was a procedure hearing on Friday. We're still working with prosecution to get agreed statement of facts, there have been delays at both ends and the hearing has now been set down for 20 September.

Meeting ends: 8.55pm.

Attachment 1. Issues prioritised by the Committee Members and progress made

	Issue Prioritised	Progress Made
1.	Understanding the impacts of the coal seam gas industry drilling and fracture stimulation techniques on water	**Completed – Feb 2012**
2.	Identifying the need for independent peer reviews of water monitoring	**Completed**
3.	Better communication with the community	**Commenced at September 2012 meeting**
4.	Providing timelines for proposed activities, including Santos activities, commercial in confidence matters and regulatory changes	**Ongoing**
5.	Providing better education on the process and impacts of coal seam gas	**Commenced at October meeting**
6.	An understanding of the cost of the industry to the community and how this may be recovered	**Discussed at February 2012 meeting**
7.	Establishing baseline data of local aquifers	**Ongoing**
8.	The need for independent specialists such as hydrologists and geologists to provide information	**Ongoing**
9.	Understanding how value can be added to the community through this process	**Commenced at October 2012 meeting**

Attachment 2. Actions raised by Committee Members that are not complete

	Action Raised	Date Raised	Progress Made
1.	Committee to ensure that all communication is distributed through DR rather than through any other individual(s)	29th November 2011	**Ongoing**
2.	Alternates to be briefed by their colleagues before attending any meetings, as required	29th November 2011	**Ongoing**
3.	SC to table an REF at a future meeting	29th November 2011	
4.	SC to present at a later date on the Eastern Star Gas pipeline projects once the business plan has been completed	29th November 2011	**Ongoing**
5.	DR to provide Committee Members with copies of future media releases	29th November 2011	**Ongoing**
6.	Santos to report back to the Committee on the findings of the investigation in to spill	24th January 2012	**Ongoing**
7.	Santos to report back on whether a prosecution is to go ahead	24th January 2012	**Ongoing**
8.	Minutes to be provided to members within one to two days and members then to have five days in which to provide comments back to the Chair	24th January 2012	**Ongoing**
9.	Santos to present on well integrity at next meeting	24th January 2012	**Ongoing**
10.	DR to ensure there is a presentation on fracture stimulation in future presentations	28th February 2012	
11.	Pilliga issue to remain on the agenda for March meeting	28th February 2012	**Ongoing**
12.	Next water management presentation to respond to the issue of geological flaws and cracks	27th March 2012	

13.	Santos to provide updates on progress of organising future joint forums	27th March 2012	
14.	Produce written update on work schedule in PEL 456	27th March 2012	**Ongoing**
15.	Santos to talk to Frank Krstic and the EDO to identify what they could offer to the SCC or local solicitors	22nd May 2012	**Ongoing**
16.	SC to identify Santos sites in the audit	22nd May 2012	**Ongoing**
17.	Santos to contact the Knights and provide them with appropriate details (when there is a date for seismic)	22nd May 2012	**Ongoing**
18.	Review and evaluation of whether input has been acted on to be discussed at November meeting	25th September 2012	
19.	DR to investigate seeking presenters with positive and negative experiences of having CSG on their land	23rd October 2012	**Ongoing**
20.	SC to identify with Tony Pickard just what data he is referring to. SC to then report back to committee on this	23rd October 2012	**Ongoing**

Attachment 3. Actions raised by Committee Members that have been completed

	Action Raised	Date Raised	Progress Made
1.	SC to provide DR with copy of presentation to go out with minutes	29th November 2011	**Completed**
2.	SC to provide information on crops grown (at site in presentation) and the details of the water content of the treated water	29th November 2011	**Completed**
3.	DR to contact Committee members to determine the date for the next meeting.	29th November 2011	**Completed**
4.	Santos to present on legislative approvals process at a future meeting	29th November 2011	**Completed**
5.	DR to forward Kathy a copy of the previous minutes	24th January 2012	**Completed**
6.	CM to source information on costs of running a desalination plant	24th January 2012	**Completed**
7.	CM to report back on Santos' policy on community investment	24th January 2012	**Completed**
8.	CM to report back on progress on joint water forum	24th January 2012	**Completed**
9.	DR to contact Committee members to determine the date for the next meeting	24th January 2012	**Completed**
10.	SC to resolve Santos mail out database	28th February 2012	**Completed**
11.	SC to provide DR with possible government contacts for presentation	28th February 2012	**Completed**
12.	DR to ensure there is another presentation on the impacts of CSG on water management	28th February 2012	**Completed**
13.	DR to discuss list of government contacts with PS	28th February 2012	**Completed**

14.	DR to invite government regulator to present at next meeting	28th February 2012	**Completed**
15.	SC to respond to Foreign Correspondent story at March meeting	28th February 2012	**Completed**
16.	Electronic copy of Santos report on the Pilliga to be forwarded to the Committee	28th February 2012	**Completed**
17.	Hard copy of Santos report on the Pilliga to be sent to Don Eather	28th February 2012	**Completed**
18.	SC to identify the date for licence renewal	28th February 2012	**Completed**
19.	Santos to present on well abandonment at March meeting	28th February 2012	**Completed**
20.	DR to invite Upper Hunter Research Foundation to March 26 meeting for a briefing on what the CCC hopes to achieve from the next survey	5 February 2013	**Completed**
21.	PB and PS to discuss organising a cattle property tour with Santos	27th March 2012	**Completed**
22.	DR to invite WB, MJ and PB to present their views on the land use forums at the next meeting	27th March 2012	**Completed**
23.	Santos to provide before and after photos of the Brawboy 2 site at the next meeting.	27th March 2012	**Completed**
24.	DR to talk to Julie Moloney about landowner rights	27th March 2012	**Completed**
25.	DR to talk to Julie Moloney about responding to road sales in April meeting	27th March 2012	**Completed**
26.	DR to ensure that staging of works to be a set agenda item	27th March 2012	**Completed**
27.	MJ to provide DR with background information on enquiry for DR to forward to committee	24th April 2012	**Completed**

28.	Santos to invite water specialist to present at next meeting	29th November 2011	**Completed**
29.	Sam and Steve to discuss property values and potential impacts on neighbours	28th August 2012	**Completed**
30.	Liz to forward Committee Charter to Michael J for Council	28th August 2012	**Completed**
31.	Santos to consider appointing an independent consultant to assist landholders with what information is available to them during negotiation	24th April 2012	**Completed**
32.	Liz to also email Steve Guihot a copy of the Update	24th April 2012	**Completed**
33.	Santos to provide CCC with copy of its submission	24th April 2012	**Completed**
34.	SC to find out who approached Santos for rodeo sponsorship	22nd May 2012	**Completed**
35.	SC to identify the sponsorship contribution Santos has made locally	22nd May 2012	**Completed**
36.	Santos to consider how to communicate landholder negotiations to general public while maintaining the privacy of individuals	22nd May 2012	**Completed**
37.	Santos or DR to contact John Ross, Gavin Mud or Phillip Pells to present on local hydrogeology	22nd May 2012	**Completed**
38.	PS and SC to discuss obtaining water quality data from landowners	22nd May 2012	**Completed**
39.	Chair to approach Canberra Uni for a water specialist after input from GB	24th July 2012	**Completed**
40.	Mark to discuss with Santos compensation for neighbours under the new compensation package	24th July 2012	**Completed**
41.	Mark to get the conversion rates of roads to drill pad areas.	24th July 2012	**Completed**
42.	Mark to ensure obligations to make good are included in compensation promotional materials	24th July 2012	**Completed**

43.	CM to investigate if Santos is aware of these companies.	24th July 2012	**Completed**
44.	MJ and WB to call their insurance companies re: action 38	24th July 2012	**Completed**
45.	CM to find out when a storage pond becomes an evaporation pond.	24th July 2012	**Completed**
46.	CM to find out where the storage pond will be located in Bunnan.	24th July 2012	**Completed**
47.	CM to find out the names of the seams being targeted in the Bunnan area.	24th July 2012	**Completed**
48.	CM to review newsletter mailing list and name of the newsletter	24th July 2012	**Completed**
49.	Santos to go to government to ask for accurate mapping of the region to be undertaken by government.	24th July 2012	**Completed**
50.	Chair to write to AGL Community Committee Chair offering support on behalf of the Santos Committee	24th July 2012	**Completed**
51.	DE and GB to forward names to the Chair for independent water specialists within one week of July meeting.	24th July 2012	**Completed**
52.	GB to provide names of insurance companies who do not insure properties with CSG activities	24th July 2012	**Completed**
53.	AS to send ESG2 Environmental Assessment guidelines to David to distribute	25th September 2012	**Completed**
54.	AS to send ESG2 Environmental Assessment guidelines to David to distribute.	26 September 2012	**Completed**
55.	Discussion on where the CCC is heading to be held in November meeting	26 September	**Completed**
56.	DR to contact government and Margaret McDonald-Hill to discuss sending meeting minutes to government.	26 September 2012	**Completed**

57.	Hardcopies of Ann's presentation to be provided with the minutes	26 September 2012	**Completed**
58.	Santos to approach Hunter Valley Research Association	25th September 2012	**Completed**
59.	WB to ask HTBA for a representative for the CCC	25th September 2012	**Completed**
60.	CM to identify if copies were mailed out to GB	23rd October 2012	**Completed**
61.	CM: to ask if HVRF can supply their questions to SCC-UH prior to survey.	23rd October 2012	**Completed**
62.	CM: to ask about the feasibility of HVRF undertaking a survey specific to CSG	23rd October 2012	**Completed**
63.	SC to obtain non-commercial in confidence information on Santos' strategic views for Upper Hunter	23rd October 2012	**Completed**
64.	PB to contact farmer about his experience in Surat Basin	23rd October 2012	**Completed**
65.	DR to provide CCC with ASX link from Dart website	10 December 2012	**Completed**
66.	DR to issue HVRF survey results to CCC members	10 December 2012	**Completed**
67.	CM to investigate if a CSG specific survey can be conducted and costings for this.	10 December 2012	**Completed**
68.	Glenn Toogood presentation to be forwarded to CCC members	10 December 2012	**Completed**

69.	DR to gauge CCC members interest in forming subcommittee to provide feedback for Santos groundwater study	10 December 2012	**Completed**
69	Santos to consult with Dart to see if they can supply the UH-SCC with a copy of REF in the next quarter.	10 December 2012	**Completed**
70. .	DR to forward PB's summary of water sub committee meeting notes to CCC.	5 February 2013	**Completed**
71.	Water subcommittee to prepare draft scope for study for presentation at next meeting.	5 February 2013	**Completed**
72.	Santos to supply picture of the proposed ESG locations	5 February 2013	**Completed**
73.	Santos to bring EOFY year forms for travel reimbursement to next meeting	5 February 2013	**Completed**
74.	Relevant council documents related to 'independence'. Register of interest to be collated	5 February 2013	**Completed**
75.	CM to supply an outline of CSG related investment in Gunnedah/Narrabri area	5 February 2013	**Completed**
76.	PS has requested of Santos a list of current & proposed exploratory well in PEL 456 as soon as possible	26 March 2013	**Completed**
77.	DR to check on progress of letter from Margaret McDonald Hill regarding sharing costs of water study	26 March 2013	**Completed**
78.	PS has requested of Santos a list of current & proposed exploratory well in PEL 456 as soon as possible	26 March	**Completed**
79.	DR to check on progress of letter from Margaret McDonald Hill	26 March	**Completed**

	regarding sharing costs of water study		
80.	DR to speak with ER & AS regarding which people from Government might be best to speak with regarding involvement in water study	26 March	**Completed.**
81.	AS to supply a link to CCC of the Government's latest CSG legislation and Santos' position on this	26 March	**Completed**
82.	AS to supply list of current and proposed exploratory wells in PEL 456	26 March	**Completed**
83.	AGL Land Valuations document to be discussed at next meeting.	26 March	**Completed**
84.	SC: To highlight the CCC's request for information on the Councils response to the latest Government Legislation regarding CSG to the D&E committee.	26 March	**Completed**
85.	DR: To write thankyou to SG for his contributions to the CCC	30 July	
86.	DR: To contact AGL CCC Chairman Margaret McDonald Hill about combining knowledge to contribute to the bioregional assessment	30 July	
87.	DR: To liaise with Peter Baker about way for UH-SCCC to have an input into biogregional assessment	30 July	
88.	SG: To nominate a replacement following next meeting of Kingdon Ponds users group	30 July	
89.	SC: To supply a copy of Santos Code of Conduct to CCC	30 July	

July 2013 Meeting

The Community Committee met on Tuesday 30th July. The Committee is made up of local business owners, landholders, community leaders and representatives from Upper Hunter Shire Council and the thoroughbred breeders industry.

The **instigation of a regional water study** continues to be the key issue for discussion. Having made unsuccessful attempts through the NSW Land and Water Commissioner to get the NSW Office of Water's involvement, the CCC was briefed by Mr Peter Baker, Principal Science Advisor from the Office of Water within the Federal Department of Sustainability, Environment, Water, Population and Communities (SEWPAC). The focus of Mr Baker's presentation was an introduction to SEWPAC's Bioregional Assessment Program.

The Bioregional Assessments have been commissioned to provide scientific analysis of the ecology, hydrology and geology of an area for the purpose of assessing the potential risks to water resources as a result of the direct and indirect impacts of coal mining and coal seam gas development in an area.

The Program currently appears to present the best possibility of a regional cumulative impact study – as sought by the CCC - being undertaken, and assessing the activities of other coal seam gas and mining companies with interests in the Hunter Region.

Nevertheless, while Santos' activities are to slow down for the next two years, the CCC will meet on an as needs basis to ensure that the work undertaken by either SEWPAC and/or Santos meets the requirements of the community.

Finally, discussion with Mr Baker also considered **the new coal seam gas and coal mining SEPP**, which gives priority to economic development (rather than associated social and environmental impacts). It was noted that, where such a project was deemed to have an impact on water resources, it would still be referred to the Commonwealth. This would therefore negate the powers of the SEPP to solely prioritise economic development.

For further information please contact David Ross on 0402 060 649.