



Project	Gloucester Coal Seam Gas Project	From	Michael Ulph
Subject	Community Consultative Committee	Tel	4941 2841
Venue/Date/Time	Friday March 4 <sup>th</sup> 2011 Gloucester Country Club, 11.05am – 1pm	Job No	21/17714
Copies to	All attendees		
Attendees	Councillor Richard Webb – Gloucester Shire Council Councillor Peter Ainsworth – Dungog Council Terry Kavanagh – Dungog Shire Council Rod Williams – Community Representative David Mitchell – Avon Valley Landcare Garry Smith – Barrington Gloucester Stroud Preservation Alliance Inc. Ed Robinson – Lower Waukivory Residents Group Marianne Johnson – The Gloucester Project Tim Hickman – Community Representative Andrew Russell – Great Lakes Council Judith Cox – PAE Holmes Toni Laurie – AGL Mark Bonisch - AGL Ian Shaw – AGL Mike Roy – Head of Gas Operations Upstream Gas Naomi Rowe – Community Relations Manager – Upstream Gas Michael Ulph – GHD (Facilitator) From 11.45am Clr Karen Hutchinson – Great Lakes Council	Apologies	Lisa Schiff – Great Lakes Council Glenn Wilcox – Gloucester Shire Council Sally Whitelaw - Port Stephens Council Courtney Paynter- AGL

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## 1. Introductions & Confirmation of Previous Minutes

## Action

Welcome by facilitator

Amendment to previous minutes.

Ian Shaw introduced Judith Cox

Previous minutes confirmed with one amendment: Page 2 of minutes, second paragraph. Second line should read "When flaring, does this take into account PM10 and others? This changes PM2.5 to PM10."

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## 2. Matters from the previous meeting, including – Executive summary of SRK Phase 1 report

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Toni Laurie, Mark Bonisch, Ian Shaw

John Ross (who spoke at the last meeting) has compiled an executive summary and Ian Shaw handed out the document to attendees, which also included some information on water aging etc.



AGL\_Memo\_SRK  
Report\_Exec Summar

MB has a field map to show water monitoring bore locations. This is to be provided to the committee.

AGL to send small version of the map by email to attendees.

Clr. Webb – Is there a smaller map we can use. Yes – will provide via email.

Ed R – Can results of water flow on river be posted to the web on a continuous basis? TL – will see what can be done.

TL – check on method to provide the water flow results to the CCC on a regular basis

MJ – How are aquifers monitored? MB – with piezometers which measure water pressure.

MJ – what if you see variations? MB – we look at what it could be – high rainfall, low etc.

MJ – If we are in drought and AGL is pumping out of aquifers, will it reduce water from bores? MB – no, the beneficial aquifers for agricultural use are well above the coal seams that are targeted.

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## 3. Project Update including Exploration update

Toni Laurie and Mark Bonisch

TL – Part 3a approval has been granted (with consent conditions) by the NSW department of Planning. AGL received notification on Tuesday. Ian handed out the document received on Tuesday.

Another meeting was suggested soon to fully discuss consent conditions. At that meeting other AGL staff can come along to provide more info.

R Webb no problem with that. Set a meeting date – 2 -3 weeks – March 25<sup>th</sup> suggested and agreed.

MB asked how long the meeting should be. Start at 10am and end around 2pm.

GS – we are looking to organise a town hall style meeting as well. Does this replace the other – NO.

MB – exploration update – currently going through approval process for a REF for another 4 well pilot in the Waukivory area.

R Webb – What will the 4 bores do? – MB Test the coal seam, and a different completion technique (under reaming).

R Webb – will you be burning off? MB – Yes

R Webb – we are moving closer to the community – how will you inform people of potential impacts etc.

MB – We will use the usual consultation such as press ads etc., and will

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**Country Club  
booked 9.30am to  
2.30pm with a break  
for lunch.**



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have noise dampening, and other impact reduction processes, the same as with previous wells.

R Webb – when? MB 8 to 10 weeks so expected mid-late April.

MB – Thru CCC we will let you know what is happening. Plus advertisements.

Ed R – Now you have approval will these wells be flared all the time?

MB – the wells will be flared to test the availability and flow of gas until a production peak is reached and passed then the wells will be suspended and capped

Ed R – When do we come out of the exploration process? TL – when we get the construction underway.

TL – Outside the project approval we still have to get Part 5 approval for further exploration. The exploration process shores up our data.

Ed R – Regarding the seismic study – is that data still not available? MB – data is still undergoing processing. Landowners have come in to see the raw data in 2D. We have not built the 3D model, it is not a simple process. We had hoped to have a model by now, but they have changed the data moving from 110Hz to 160Hz – geologists are constantly refining the raw data.

Ed R – Are the exploratory 4 wells to become part of the production system? MB – Yes. We will look to suspend the wells until they are brought into production. They will flare for 9 – 12 months.

Marianne J. How many years to get to full production?

MB – If a large scale gas fired generator came online, we would fast track it – if not then slower, that said, project consent conditions are required to be met before production.

MJ – Assuming you meet the guidelines will you have a minimum of 50 wells? MB – yes approximately.

MJ – What will happen if coal goes ahead [in the region] – how is the gas project affected? Can you stop coal exploration from getting close to the gas fields?

MB – I don't know. MJ – I am concerned about safety. TL – We will discuss activity with coal companies.

MJ – Concern about potential hazards of other industries as well.

MB – We will use risk analysis to ensure we have a safe buffer between mines and gas production.

Mike Roy – We have rights now, as we have an approved project. The DII want to make sure the petroleum producers and mine companies work together.

Garry Smith – This issue is much bigger than you are acknowledging. This does not seem to be a satisfactory arrangement at all.

Rod Williams – What is the timeframe for you to set up and extract the gas?

**Clr Karen Hutchinson arrived 11.45am.**

MB – We expect it will be approximately 10 to 20 years to extract the gas.

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DM – What private land will be affected? MB – 3D model will tell us who we should talk to, which landholders?

DM – Where will facility be put? TL – we have exchanged contracts with Gloucester Coal for the land at the piggery – that’s our preferred location for the Central Processing Facility, at the Northern end near Parker’s Rd. Vol 4 of the EA shows an indicative setout of the Facility.

R Williams – what we have looked at indicates two sites. We are looking for certainty between the two sites.

MB – We had two options because we had to purchase the land. The piggery site has been rezoned, so it will be there, at Parkers Rd.

MJ – Is there an exclusion zone for large digging operations? What would it be? Subject to risk analysis and best scientific research

TH – If a coal mine dug below your well, would that affect things?  
Mike Roy – We are drilling much deeper than the coal mines are.

TH – Could the gas escape from the mine? Mike Roy – Yes – open cuts do vent gas, we would not be targeting that gas. We would be much deeper.

TH – If mine has to pump water out will that affect gas movement? How far might it travel?

MB – we are extracting at 200m and below.

M Roy – It is very important that we stop any surface effects as it may impact on what we do. Surface mines will have minimum impact on our deep wells.

MJ – What are contingent plans for sheared casings due to earth tremor?

M Roy – We would evaluate if a well was still producing etc. We wouldn’t take a risk if we thought the gas may travel to a higher level. If in doubt we would plug and abandon the well. Casing could become deformed or perforated. We would look to see if there have been any effects.

MJ – If gas was travelling outside the casing and travelling to an aquifer?

MR – We would close it off with cement. We could look behind the casing to see what was happening. MB cement bond log

R Williams – What if you got a movement/shear?

M Roy chances are the water would seal the gas off. It’s very unlikely that gas would percolate upwards.

Terry K. Any progress with construction compound?

TL – Not yet.

MB – The CEMP will be put together that includes responses to the consent conditions.

R Webb – Page 24 of the consent conditions. Establishment of Community & Stakeholder engagement plan. I assume that the CCC will continue?

TL – yes we want to continue the CCC.

R Webb – can you embrace this committee for feedback on the plan?

M Roy – The Camden Gas Project CCC has been going for 9 years and

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currently meets every three months.

IS – We tried very hard to get a good representation of the community. It is working well and we want that to continue.

MU and GHD have been providing independent facilitation here.

DM – Do you have a start date? TL – we should have more detail at the next meeting.

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#### **4. Particulate Matter presentation by Judith Cox, Senior Air Quality Engineer with PAEHolmes**

Michael introduced Judith Cox of PAE Holmes, a specialist independent air quality consultancy. Judith and PAE Holmes have not been associated with the Gloucester Gas Project.

##### **Presentation on particles.**



5690\_AGL\_GLoucest  
er\_CCC\_Particles\_04

- Particulate matter is only emitted when combustion is incomplete.
- There is no emission data for PM from flaring CSG.
- POEO regulation does not allow any visible emission other than for 5 minutes every 2 hours.
- The smaller the particles the more health impacts.
- TSP – total suspended particulates. <30um in diameter.
- PM 10 <10um in diameter (windblown dust etc)
- PM 2.5 usually from combustion.
- Bigger particles captured in throat, nose mouth etc.
- Smaller can get into lungs etc.
- The damage is usually done by what the particles carry with them.
- Very small particles can get into smallest part of lungs.
- Australia has a National Environmental Particulate matter standard. 24hr average of 50 micrograms per cubic metre, and allows 5 exceedances per year.
- DECCW project assessment criteria 50 – excludes extraordinary events – bushfires etc. also annual average criteria is 30 mg/m3
- US EPA standard 24 hr standard is 150 (may go down to 85).
- There is no Australian standard for smaller particles. For PM 2.5 – NEPM advisory reporting standard is 25 mg/m3 on 24 hr average.

**Stratford air quality – samples every six days to ensure a different day each week. They never went over the 50mg/m3 level. The level is set with a large measure of safety.**

R Webb – does rainfall/humidity affect results. This measurement device allows adjustments for humidity. JC - Coastal areas may get much higher

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results due to sea salts.

MJ – PM2.5 – what was it based on? JC – not based on anything, and we don't know much about it.

PM 2.5 as a measure is very protective of humans.

PM10 includes 2.5 – it is 10 and below.

In Europe – set on a population density basis. Average of a number of monitors, manipulating the data and to get a cross section – as people move around.

GS – A theoretical question. Wood fires – lots of pasture burning in the valley – sometimes very severe. Can there be a cumulative impact?

JC - Flaring is a high temperature process. So very unlikely to get PM2.5 particles [to accumulate with smoke from fires].

Ed R – I'm still waiting for an answer re: EA statement on PM2.5.

JC – AECOM took a very conservative modelling. You'd have to ask them.

MB. By March 24<sup>th</sup>. Action: By March 24<sup>th</sup> – answer re: AECOM expectations re: PM2.5.

R Williams – We have heard of flaring – and ABC publicity speaks of gas leakage. Does monitoring of gas leakage give any indication of detrimental effects?

MB - It is methane gas.

Mike Roy. Methane is much lighter than air so it goes straight up, and disperses very quickly.

MJ – what about other sources of particulates? What other sources can there be? Can we have a list of the substances that could be coming up?

MB – Water sampling can tell what's in the water. Fracking chemicals are known.

M Roy – Minute quantities.

MJ – There is a % of what is in the fracking fluids.

MB – Council has list of all the components of the fracking materials. Info is on Gloucester Shire Council website in the February Business Paper – “Matters for Information”.

JC – Flaring gas is like a gas heater, a gas stove etc – no smoke – no risk from particulates.

ED – With 4 or more wells flaring at a time the impacts will be multiplied.

MB – We will be putting gas into the pipeline as soon as we can. Only flaring for extended time when exploring.

MR – Within last 6 years in Camden, we have flared on only 2 or 3 days.

JC – There is an air quality monitoring station in Camden. You could look at the air quality there. **This is currently being investigated by our Camden team (Note added by IS)**

RW – Is there an expectation of a rise [in particulates] due to flaring

JC – NO. It would be from fires.

MJ – The flaring will go for how long (6-9 months), then production no

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AGL to get an answer from AECOM re their modelling by March 24<sup>th</sup>.



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flaring?

M Roy yes – only if the plant has to shut down. When flaring – methane will produce H<sub>2</sub>O, will vaporise most of the particles.

MJ what size particles will be carried in the water vapour (there will be no water vapour left). Mainly it is vaporised – so no major pollutants from the flaring process? JC - NO.

MJ – 2.5 issues are still real in the valley.

Ed R – “no smoke = no particle – I question that.”

JC – The US has emission standards for all sorts of particles – US standard is smokeless flares – zero soot, unless the process goes wrong.

M Roy – Same code but larger scale, as gas stoves at home.

M Roy – We know the gas.

RW – Any comments about asthma?

JC – The edge of the road at Muswellbrook is worse due to the car exhaust fumes, salt air has an affect, etc.

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## 5. Youth Support and Development Programme update

Ian Shaw mentioned that Courtney Paynter has been appointed for some time. Is working with the school. Mentors are comfortable working in a controlled situation, so currently working within the school – A small number of Year 10 students.

With more confidence will move to post-school students.

Teachers have suggested young people to be involved.

Courtney to attend meeting after next.

Action: Courtney  
Paynter to attend the  
April meeting.

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## 6. Correspondence and general comments from the committee

Ian – correspondence.

Email to Marnie – tabled all discussions re: working with the Gloucester Project.

Also between MB and Graham Healy re: community forum on March 22<sup>nd</sup> Tuesday evening.

### General business:

GS – are meeting minutes now available on the web site?

Ian Shaw has had an issue with one file for minutes for meeting 8.

They will be there in the next week or so.

MB – has GS referred people to AGL to get information?

Andrew Morris – environmental offsets - how is that progressing.

MB – We are working with DECCW on that.

AM - Is there an opportunity for GLSC officers to be involved? Such as providing input/local knowledge. An answer will be sought from DoP—by

TL

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## 7. Next Meeting

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March 25<sup>th</sup> 10am to 2pm.  
Gloucester Country Club.

Next CCC meeting  
March 25<sup>th</sup> 10am.

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**Michael Ulph**

**GHD - Stakeholder Solutions**