

The attached emails are my submission, I believe these emails convey the concerns of the rural residents of Tara and surrounding districts. As you can see from the responses of various govt depts that our concerns are not being addressed.

In regards to the recent CSG Well Head Safety Report. The fact that DEEDI will not release the amount of wells that are leaking is of great concern. I personally had an interview with the Chief Inspector, Stephen Matherson of DEEDI who refused to tell me how many wells were actually leaking. It now seems acceptable by the Government to have leaking gas wells as long as the CSG company have completed a leak management plan which is to include monitoring. This is totally unacceptable for the thousands of families living as close as 70 metres from a gas well. This report has taken over 12 months to complete this is very disappointing due to our concerns previously raised regarding leaking gas wells. Both DEEDI and QGC have come out previously and stated that leaking gas wells are unacceptable due to safety and health concerns, impacts to air quality and CO2 emissions, as well as Jim Knudson QGC management stating that it is not good for business due to the loss of gas.

Scott Collins

Your submission raises so many questions that DERM should respond to.

You refer to "the reduction of the allowable discharge of 12ML of treated water from the initial application of 40ML. per day... approval for the discharge of this water is for a 12 month period only, or as soon as the beneficial use pipeline to Chinchilla Weir is approved and commissioned."

Is there a list of chemicals for their waste water release ? If so use that list not your own and if not, why is there no list of permitted releases.

You could refer to the permit for another QGC site and the 84 chemical compounds permitted for release (see below)

As there are many organic and volatile compounds included they are unlikely to be removed by RO.

It would be very useful to focus on that for as you say there is evidence of them using untreated waste water on your roads with corresponding risk of contamination of peoples land.... I think this is a very vulnerable area for both DERM & QGC....it amounts to intentional contamination of agricultural/private land ... I would focus a bit more on that.

I've subsetting our section on that QGC permit below . Feel free to use anything out of our report.

Regards Mariann

#### "Permits to Release Waste Water into Waterways

Permits are provided for the release of waste water produced in association with the fracking process. In one authorisation for one CSG company,[1] the release of treated water into the Condamine River was authorised for a period of 18 months at a maximum volume of 20 megalitres (ML) per day. Over 80 chemical compounds as well as radionuclides[2] were listed in the permit and included a range of persistent, bioaccumulative toxic substances such as nonylphenols, Bisphenol A (BPA), chlorobenzenes, bromides, lead, cadmium, chromium, mercury, BTEX). There was no requirement for an assessment of the cumulative load or the potential to contaminate sediment, plants, aquatic species and /or animals prior to release.

While release limits were included for the listed compounds, the majority of these were not based on the ANZECC water guidelines [3] as many of the chemicals were not listed in the ANZECC guidelines or were marked as having insufficient data to set a water quality guideline. [4]

Follow up monitoring was required by the authorisation but this did not include assessment of the cumulative load. This is in contradiction of the current National Water Quality Management Strategy (NWQMS) [5] which recommends moving away from relying solely on chemical specific water monitoring to a more integrated approach using direct toxicity assessments (toxicity bioassays which assess overall toxicity of the water) and biological monitoring to fully assess the cumulative (additive and synergistic) impacts of the mixture of chemicals on the environment including plants and animals

[1] Schedule C, Australian Pacific LNG Pty Ltd Environmental Authority (petroleum activities) No. PEN100067807

[2] Radionuclides occur naturally as trace elements in rocks and soils as a consequence of the “radioactive decay” of uranium-238 (U-238) and thorium-232 (Th-232). When radioactive atoms release or transfer their extra energy, it is called decay. The energy they release is called ionizing radiation, which may be alpha particles, beta particles, or gamma rays. When ionizing radiation strikes a living organism’s cells, it may injure the organism’s cells. There are about 650 radionuclides with half lives longer than 60 minutes. Of these, about 339 are known from nature. For more information see <http://www.epa.gov/radiation/radionuclides/>; Also see [http://www.nesc.wvu.edu/pdf/dw/publications/ontap/2009\\_tb/radionuclides\\_DWFSOM45.pdf](http://www.nesc.wvu.edu/pdf/dw/publications/ontap/2009_tb/radionuclides_DWFSOM45.pdf)

[3][http://www.mincos.gov.au/publications/australian\\_and\\_new\\_zealand\\_guidelines\\_for\\_fresh\\_and\\_marine\\_water\\_quality](http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality)

[4] The authors note that the Australian Centre for Mining Environmental Research, an industry consultancy has published their own list of TRIGGER VALUES FOR TOXICANTS in the document; Batley, GE, Humphrey CL, Apte SC and Stauber JL (2003). A Guide to the Application of the ANZECC/ARMCANZ Water Quality Guidelines in the Minerals Industry. (Australian Centre for Mining Environmental Research: Brisbane). However, the document is not in the public domain hence the trigger values, the data used or the methodology cannot be assessed.

[5] <http://www.environment.gov.au/water/policy-programs/nwqms/>

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From: scott

To: derm .qld.gov.au

Subject: QGC E.A Amendment

Date: Tue, 7 Jun 2011 15:12:32 +0930

The following submission is for an internal review on the approval in QGC E.A amendment PEN100020207.

Page32 Schedule F-Environmental Nuisance.

Odour,dust and other airborne contaminants.

(F1)The release of odour,dust and any other airborne contaminants,or light from the petroleum activity must not cause an environmental nuisance at any sensitive place.

The following are examples I consider will create an environmental nuisance.

All truck and heavy vehicle movement.

All light vehicle movement.

Flaring.

Venting.

Bulldozing of vegetation.

Leaking gas wells.

Drilling activities.

Fracking activities.

The exhaust fumes on each dewatering pump 750 metres apart for the next 20 years.

In regards to light spill,this community will experience a living environmental comparable to that of living in an artificial, florescent major town. While DERM may argue that this is only a temporary nuisance it is still a nuisance and no where in the new E.A is their any provisions for such.

In respect to dust, in the previous E.A page 6 Schedule B Air Emissions Condition (B2) it states a dust deposition level of 120 milligrams per square metre per day. Why is there no levels set in their new E.A?

How does DERM measure an environmental nuisance?

After observing the petroleum activities on a landholder's property with the installation of the gas and water gathering systems, I can state without any hesitation that the dust produced, for example the bulldozing of vegetation, the chipping and mulching of vegetation, the excavation of huge piles of dirt left to blow in wind, etc would have been an example where QGC should have offered alternative arrangements to affected landholders as per their existing E.A. This is no more evident than the family that are 70 metres from a well recently connected to the gathering lines. Did QGC offer this family alternative arrangements? Can DERM write to QGC to confirm that they have adhered to their E.A. regarding this issue.

Have DERM completed any modeling on the cumulative effects of the above mentioned examples of airborne contaminants and the health impacts on residents?

I refer to page 35 regarding fuel burning or combustion equipment that is capable of burning at least 500kg of fuel in a hour and this equipment must not be located in hubs or in places within 5km of a populated area. This is an admission that living near compressor stations are hazardous to your health. I request DERM investigate all existing and proposed compressor stations in relation to the distances to sensitive receptors. No resident should be forced to live within 5km of a compressor station.

Page 33 Noise Management

It is disappointing but not surprising that the noise limits have been increased for the benefit of QGC, but to the detriment of rural residents.

The 7am-6pm short term noise limit of 45dB is an increase of 15dB from their existing E.A limit of 30 dB.

The 6pm-10pm short term noise limit of 40dB is an increase of 10dB from their existing E.A limit of 30dB.

The 10pm-6am short term noise limit described as Max L 55dB is of great concern. An example of this noise is described by DERM as being the dropping of a hammer or the annoying reverse beeping on all QGC vehicles. Nowhere in QGC existing E.A or the C.G report does it say that this new noise category should be introduced. So in theory as long as the noise does not last continually past the 15 minutes period like the reversing of vehicles and movement of vehicles it is acceptable. So in theory this noise will be heard all night but can be justified by QGC as the noise did not last longer than 15 minutes. This limit of 55dB is an increase of 27dB from their existing E.A limit of 28dB.

The 6am to 7am short term noise limit of 40dB is an increase of 12dB from their existing E.A of 28dB. This is another example of a new noise category being introduced.

The 7am-6pm medium term noise limit of 43dB is an increase of 13dB from their existing E.A limit of 30dB.

The 6pm-10pm medium term noise limit of 38dB is an increase of 8dB from their existing E.A limit of 30dB.

The 10pm-6am medium term noise limit of Max L 55dB is an increase 27 dB from their existing E.A limit of 28dB.

The 6am-7am medium term noise limit of 38dB is an increase of 10dB from their existing E.A. limit of 28 dB.

The 7am-6pm long term noise limit of 40dB is an increase of 10dB from their existing E.A limit of 30dB.

The 6pm-10pm long term noise limit of 35dB is an increase of 5dB from their existing E.A limit of 30dB.

The 10pm-6am long term noise limit of Max L 55dB is an increase of 27dB from their existing E.A limit of 28dB.

The 6am-7am long term noise limit of 35dB is an increase of 7dB from their existing E.A limit of 28dB.

The deemed background noise limit has also been increased.

The 7am-6pm is now 35dB from 25dB.

The 6pm-10pm is now 30dB from 25dB.

The 10pm-6pm is still 25dB.

The 6pm-7pm is now 30dB from 25dB.

I believe these noise limits will be almost impossible to monitor which once again will work in favour of QGC.

Regarding low frequency noise,how can a noise limit reading of 50dB not be an environmental nuisance.This noise is proven to cause negative physical and mental health impacts.

I refer to my various emails sent to this DERM requesting noise monitoring on the whole drilling process.This was to included pre drilling activities such as construction and all truck movement.This is now particularly relevant with the new short,medium and long term limits.I once again request DERM to do noise monitoring as per above.

I spoke with Richard Oldham from QGC who stated that the only noise modeling completed was for the actual drill rig.This is unacceptable.

QGC state in their SEIS that they believe a temporary noise limit of 55dB for drilling activities is acceptable.QGC also state that if they were to adhere to their E.A the full extraction of the gas reserves would not take place.This is an admission QGC will not adhere to their E.A.

I strongly object to the alternative arrangement clause .Residents should not be moved and inconvenienced.

The family 70 metres from the well being connected would have experienced noise outside QGC E.A. Can DERM obtain a copy of the written agreement signed by the resident as per QGC E.A.

As I have stated previously the initial drilling in the residential estates were conducted outside QGC E.A as no written agreements were made with affected sensitive receptors that experienced noise above the required limit. One family in particular were traumatised, experiencing severe vibration of the home, with a window cracking and were deprived of sleep over the drilling period.

I refer to page 169 condition 12 of the C.G report.

Prior to the issue of the E.A that includes P.L 228 or approval of other tenement applications associated with this development proposal and which contains rural residential allotments. a rural residential code of conduct must be submitted to the C.G for approval. If this code has not been approved I request DERM delay the approval. This code should be included in QGC new E.A.

I request the new E.A noise limits be the same as the existing E.A. noise limits.

In respect to the reduction of the allowable discharge of 12ML of treated water from the initial application of 40ML. per day. Why has this been reduced if the only issue was water quality. What is QGC new waste water management strategy seeing they are only discharging less than a third of the requested amount.

The approval for the discharge of this water is for a 12 month period only, or as soon as the beneficial use pipeline to Chinchilla Weir is approved and commissioned. With this approval process taking 12 months due to water quality issues, how long will it take to get the water quality acceptable for drinking purposes.

I refer to the following chemicals typically found in product water held in regulated dams.

Aluminum

Magnesium

Arsenic

Cadmium

Copper

Lead

Manganese

Mercury

Nickel

Borate

Ammonia

Nitrate



Nitrite

Petroleum Hydrocarbons

BTEX

Polycyclic Aromatic Hydrocarbons

Gross Alpha Radiation(mBq/L)

Are all these chemicals removed in the reverse osmosis treatment?

I have attached research and an email from Mariann Lloyd-Smith indicating that many of these chemicals are not removed and pose a real risk to the water quality that is being used to suppress dust, discharged into Wieambilla Creek and ultimately will be drunk by Chinchilla residents.

As John Bradley confirmed in an email dated 5 November 2010, that no health studies have been conducted by the Government regarding the negative health impacts this industry poses. I have subsequently forwarded health studies to the Government but these have been ignored.

If you google Gross Alpha Radiation you will read the following

Alpha emitting radioactive elements.

Americium 241

Plutonium 236

Uranium 238

Thorium 232

Radium 226

Radon 222

Polonium 210

It then goes on to say if alpha emitters have been inhaled, ingested or absorbed into the blood stream, sensitive living tissue can be exposed to alpha radiation. The resulting biological damage increases the risk of cancer, in particular, alpha radiation is known to cause lung cancer in humans when alpha emitters are inhaled.

My concern is that not only landholders but workers are being exposed to these toxic chemicals on a continual and sometimes permanent basis and are unaware of the health dangers associated with this industry.

With the emergency discharge clause in this E.A. have QGC done any modeling on the effects on Wieambilla Creek and what damage this will cause for the flora and fauna. Have QGC put in place any clean up management plan?

With the permanent discharge of 12ML per day into this dry creek it will kill all natural predators of mosquitoes. What mosquito and midge management plans and or control measures have been put in place to prevent the spread of mosquito viruses.

With the approval of the use of treated water for dust suppression, can the residents trust QGC to adhere to their E.A. QGC have already demonstrated their contempt for rural residents by disposing of untreated product water on our roads. Have QGC provided DERM with any recent water quality testing results and have those tests confirmed a TDS limit of 2000mg/l or under.

The use of Dougals road for all vehicles associated with the construction of the proposed infrastructure is an accident waiting to happen. This runs off the Tara/Chinchilla Road a single lane road with Dougals Road situated on a blind corner. Have QGC completed a traffic management plan for this intersection?

Schedule L Notification Procedures

QGC must notify DERM within 24hours of any serious accident.

So residents lives are put at risk for up to 24hours so QGC can hopefully cover up the problem without anyone including the media finding out. This is what happened recently with the Arrow well blow out near Dalby.

Why did it take so long for QGC to notify DERM and affected landholders near Tara when they fraced the aquifer.

QGC are unfit to conduct any mining activities let alone amongst thousands of residents. The continual breaches of their E.A, leaking gas wells, the dumping of huge amounts of untreated product water on our roads, in our dams and creeks and who knows what other destructive practices they are engaged in.

I refuse to acknowledge the new E.A as a legal document, giving QGC authority to conduct CSG mining in the residential estates.

Myself and other like-minded individuals will continue to protest and create civil disobedience until a moratorium is called.

LOCK THE GATE QUEENSLAND

LOCK THE GATE AUSTRALIA

Scott Collins