Queensland Greens, PO Box 661, Albion BC, 4010

Queensland Floods Commission of Inquiry.

Invitation to provide further submission

QFCI ref: Doc 1686704

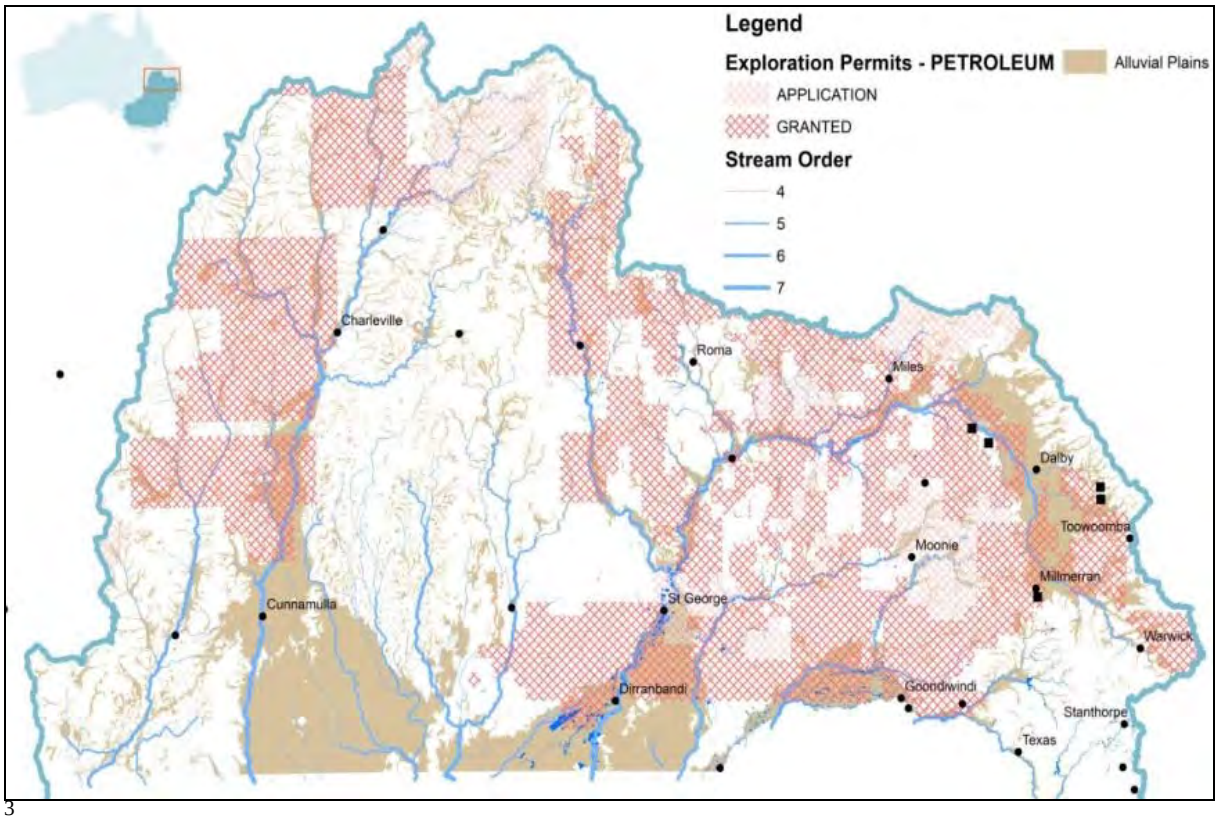
Thank you for the opportunity to make a further submission and apologies for the delay in responding.

Re details of examples of mine levees which create holding dams for 'produced' water from coal seam gas drilling on the floodplains of the Condamine, Moonie and Fitzroy Rivers

Unfortunately it has proved impossible to find out where precisely these dams have been built or how large they are. What is known is that they are significantly larger than the ring tanks traditionally built by farmers for irrigation, that they are located within the Murray-Darling and Fitzroy River catchments, and that some of them faced problems during the January floods. The environment movement has been unable to obtain precise data about the number of these dams or of the number flooded.

The Queensland Government banned the construction of evaporation dams earlier in 2011. However a government factsheet dated 23 June 2011 makes clear that companies are permitted to build these dams 'if there is no feasible alternative to managing csg water'. Furthermore aggregation dams and brine dams are still permitted and modelling conditions are still being developed to ensure that 'activities do not: • concentrate flood flows • increase flood duration • increase the safety risk to people or property from flooding.'[1]

The Queensland Murray Darling Committee has produced a map of the major streams of the Queensland Murray Darling overlaid by Petroleum and Gas Exploration Leases and Granted Leases which gives an idea of the scale of the problem and the proximity of operations to Queensland streams including those which flooded in January 2011. The Department of Environment and Resource Management states that only three of the many dams that must exist to facilitate these extensive operations overflowed during the January Floods.[2]



3

In relation to water discharges from mining and gas operations, the website of the Department of Environment and Resource Management states that 100 applications for Transitional Environmental Programs (TEPs) have been approved since 1 December 2010. These comprise 61 new applications and 39 amendments to existing TEPs allow coal and gas operations to discharge floodwaters to Queensland streams.[4] The section of the DERM website devoted to management of the Fitzroy River system states that 48 new Transitional Environmental Programs (TEPs) for Fitzroy Basin coal mines have been approved since 1 December 2010 as well as 34 amendments to existing TEPs. These Fitzroy TEPs also include approvals for coal seam gas operations to discharge.[5] In relation to coal seam gas it specifies that

> Australia Pacific Liquid Natural Gas' Spring Gully operation, east of Injune, was issued an approved

TEP on 28 December and has been extended until mid-February to allow for the assessment of an amended TEP application received from the company.

Arrow Energy was issued an approved TEP on 4 February, 2011, for its Moranbah operations that allows them to discharge produced water under specified conditions.[6]

So these decisions gave approval to coal seam gas operations to discharge to a creek which is part of the Isaac River and the second to the Dawson, both part of the Fitzroy system. Comparing the two lists, 13 TEPs and 5 amended TEPS were approved for operations of either mine or gas to release water in river systems other than the Fitzroy but where is not specified on the public website nor do the notifications give any details of the size of the storage dams or total volumes of water being held by coal seam gas companies.

A little more information comes from the first report of the LNG Enforcement Unit. This 6 page report noted that there were four incidents involving 'the controlled or uncontrolled release of coal seam gas water or permeate to the environment' between January and June 2011. Later this is detailed as Arrow Energy which was allowed to release 'RO permeate' from its Daandine operations to Wilkie Creek which flows to the Condamine. [7] Undoubtedly there were many other incidents, as per the photos of a flooded csg camp sent to the secretary of Lock the Gate soon after the floods and provided in Appendix 2.

Specific examples of major problems with water release planning.

The lack of detail about the overflow incidents during the flood makes it impossible to draw any definite conclusions. Local landholders reported that both Cameby Downs mine near Miles and the New Hope mine near Acland discharged water into local streams (Columboola and Lagoon Creeks) before getting DERM approval to do so but DERM subsequently authorised these releases.

In the Fitzroy Catchment, members of the Fitzroy Water Quality Advisory Group agreed to the 80 or so releases from the Bowen Basin mines on the grounds that the longer the water remained in the coal pits the worse the dissolved contaminants would be. So as not to repeat the salinity load of 2008, companies were not allowed to release above 20% of the current streamflow. These extremely liberal conditions are hardly 'strict flow and dilution conditions' as claimed by the LNG Enforcement Unit. Since the conditions were put in place to limit and try to prevent very high salinity levels which are so problematic for crops and human consumption, it is disturbing to note that the LNG Enforcement Unit then weakened this process when it allowed Origin/APLNG to release highly saline water into Eurombah Creek on the grounds that the stream was experiencing high conductivity anyway.[8]

It is clear that despite the damage caused by the 2008 Ensham coal mine water releases, that coal miners have not developed alternative plans to deal with coal pit water but have instead developed a culture of entitlement to release to Queensland streams, a culture that appears to be becoming entrenched in the new coal seam gas sector as well as DERM.

A new Waste Recycling and Reduction Bill which is currently under consideration by the state parliament has been redrafted to include 'ermergency' release of waters by csg companies into Queensland streams; the legislation has been drafted so that these releases can continue for up to 12 months. The Queensland Murray Darling Committee's opposition to these provisions in their submission to Queensland's Environment, Agriculture, Resources and Energy Committee is included in Appendix 1.

Human impacts as a result of mine discharged water

The Greens received reports from the Mackay Conservation Group and the Capricorn Conservation Council of landholders who suffered as a result of mines being permitted to discharge their mine waters.

One family, the [redacted], have a grazing property near Rolleston where Xstrata is expanding its Rolleston open cut coal mine on part of the property. The [redacted] had to get permission from Xstrata to exit their property as the mining company controlled the exit during times of flooding. Past mine releases resulted in dead fish in their stream and the death of vegetation along its banks. The mine changed the hydrology on the property and flooded areas the Tysons had not seen flooded before.

[redacted] was issued with Penalty Infringement Notices from DERM over pumping wastewaters into an adjacent creek near their Collinsville mine. A landowner in the vicinity of the Sonoma Mine found his aquifer was polluted.

When the coal companies are permitted to do "controlled releases" the mines measure water quality immediately downstream but no cumulative impacts are collected or assessed. What is required is systematic data collection at each river basin outlet downstream from mining companies. Without it is very difficult to gauge impacts.

Any specific impacts on aquatic ecosystems

There has been a dreadful toll on marine life in the 8 months since the floods. On 2 September 2011, the *Gladstone Observer* reported the following marine death totals:

	Queensland	Gladstone Area
Dugongs	129	8
Dolphins	31	5
Turtles	843	143

But only 12 days later ABC radio reported that Queensland turtle deaths had reached 910 and dugongs 132. For the same period in 2010 the death toll had been 515 and 62 respectively.[9]

On Friday 16 September, the Queensland Government also announced the closure of Gladstone harbour from The Narrows in the north south to Rodds Peninsula to all commercial

and recreational fishing. This followed the hospitalisation of two fishermen and the discovery of diseased barramundi with cloudy eyes and skin lesions.[10] This was not the first time that diseased fish had been reported in this region. Following the 2008 release of mine waters into the Fitzroy diseased catfish with pink eyes were also reported. As in 2011, Biosecurity Queensland undertook a scientific investigation to try to establish the cause but the results of the 2008 investigation have never been released.[11]

Although the Minister for the Environment has appointed a scientific panel to investigate the marine deaths no information has yet been released. The Minister has made public statements that the floods have smothered seagrass beds in silt so that the loss of feeding grounds is likely to be a major contributor.[12] This is certainly a factor, however there are many other questions that the Queensland Greens believe the scientific panel needs to consider. These include the impact of concentrations of heavy metals in the Fitzroy River delta, north Curtis Island/southern Keppel Bay and Port Curtis regions. These regions are all downstream of mine water discharges which include dissolved heavy metals known to bioaccumulate. Could the increase in dredging have stirred up toxins deposited from past floods and were any of the dead animals tested for heavy metal toxicity?

Toxics such as heavy metals do not break down in the environment. A remote sensing monitoring program especially in flood plains and river deltas is needed to acquire this data before Queensland's next flood.

We need statewide quality monitoring and reporting to know the basin-scale effects in people and the environment. It requires baseline data from streams including those where there are no mines so that biological monitoring of aquatic life downstream to river basin mouth and longer term monitoring of food chains can be effectively interpreted to distinguish natural flooding impacts and flooding effects from agricultural development, urban areas and mining impacts respectively.

Impacts on aquatic systems including the Great Barrier Reef

No monitoring of the reef was done following the January 2011 floods. According to Mackay Conservation Group a big fish kill was reported near Abbot Point in a creek mouth estuary and of course most of the marine deaths occurred in Great Barrier Reef waters. Although the Minister issued statements that she had been advised of large seagrass dieback there has been no specific data to sort out what has been caused by large freshwater inflows and/or contaminated flows from coal mines.

Aspects of the Hart Report not fully implemented

The most important failing has been the absence of any long term biological monitoring particularly of Keppel Bay. The need for long-term biological study of the effects of the mine water discharges was specifically mentioned in the Hart Report.

One aspect which has been implemented is the establishment of the Fitzroy Water Quality

Monitoring Group which has environment group representation. At its regular meetings environmentalists have repeatedly asked for a copy of the government commissioned report into the 2008 fish deaths. This report has still not been released.

Environmentalists have also been concerned about the failure to release the Seagrass Report commissioned by the government in February 2011.

In mid-2011 as more and more dead marine life was being reported, the government also commissioned a scientific panel to report on the causes.

As well the state government instigated the Port Curtis Integrated Monitoring Panel [PCIMP] which is comprised of the Gladstone Ports Corporation and representatives of the many companies with interests in the management of the port. PCIMP commissioned Central Queensland University to monitor impacts on Port Curtis. There is a lack of detail on PCIMP's website and concern has also been expressed over the corporate commissioning of the scientific research.

So there is no long-term monitoring and a lack of openness from the state authorities when it comes to recognising downstream impacts on marine environments.

Libby Connors

State Spokesperson

[redacted]

20 September 2011.

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[1] Coal Seam Gas Water Dams fact sheet available at: http://www.derm.qld.gov.au/factsheets/pdf/water/w196.pdf. Accessed 19 September 2011.

[2] CSG/LNG Compliance Plan 2011 Update: January 2011 to June 2011, p. 4. Available at: http://www.derm.qld.gov.au/environmental_management/coal-seam-gas/pdf/csg-lng-compliance-update1.pdf. Accessed 19 September 2011.

[3] Map supplied by Sarah Moles, Secretary to the Lock the Gate Alliance. Updated version of QMDC map available at http://www.qmdc.org.au/publications/download/580/website-pdfs/mining_impacts-qmdb_29sept2009_web.pdf, p. 34. Accessed 19 September 2011.

[4] Mine water discharges authorised since 1 December 2010:Transitional Environmental Program (TEP), http://www.derm.qld.gov.au/environmental_management/land/mining/teps.html. Accessed 19 September 2011.

[5] Fitzroy Basin Coal Mines Water Discharges: Transitional Environmental Program (TEP), http://www.fitzroyriver.qld.gov.au/updates/tep/bowenbasin-coal.html. Accessed 19 September 2011.

[6] *ibid*

[7] CSG/LNG Compliance Plan 2011 Update: January 2011 to June 2011, p. 3 & p. 4. Available at: http://www.derm.qld.gov.au/environmental_management/coal-seam-gas/pdf/csg-lng-compliance-update1.pdf. Accessed 19 September 2011. "Permeate" is industry jargon for product water according to a commercial website for water equipment: http://www.purewaterproducts.com/permeatepump.htm

[8] CSG/LNG Compliance Plan 2011 Update: January 2011 to June 2011, p. 4. Available at: http://www.derm.qld.gov.au/environmental_management/coal-seam-gas/pdf/csg-lng-compliance-update1.pdf. Accessed 19 September 2011.

[9] ABC Radio: AM 14 September 2011. Available at: http://www.abc.net.au/am/content/2011/s3317122.htm?site=northqld. Accessed 19 September 2011. See also Environment Minister Vicky Darling's press release of 9 September 2011: http://www.cabinet.qld.gov.au/MMS/StatementDisplaySingle.aspx?id=76496. Accessed 19 September 2011.

[10] *Gladstone Observer*, 16 September 2011. Available at: http://www.gladstoneobserver.com.au/story/2011/09/16/contaminated-gladstone-harbour-fishing-ban-health/ . Accessed 19 September 2011. See also Department of Primary Industries and Fisheries, http://www.dpi.qld.gov.au/28_20898.htm. Accessed 19 September 2011.

[11] Phone call to Michael McCabe, Coordinator of Capricorn Conservation Council, Monday 19 September 2011.

[12] Ministerial press release, 18 July 2011. Available at: http://www.cabinet.qld.gov.au/MMS/StatementDisplaySingle.aspx?id=75721. Accessed 19 September 2011.

Appendix 1

Excerpts from the Queensland Murray Darling Committee submission to the Parliamentary inquiry into the Waste Reduction and Recycling Bill 2011 covering emergency releases of coal seam gas water. Highlight in original document.

Original available at: http://www.parliament.qld.gov.au/en/work-of-committees/committees/EAREC/inquiries/current-inquiries/WRRB2011

Click the "View Submissions" tab.

13.0 Part 10 Amendment of Water Supply (Safety and Reliability) Act 2008 'Division 4A Provisions for CSG emergency releases

'329GA What is a CSG emergency release

'(1) The release of coal seam gas water that is recycled water by a CSG entity directly or indirectly into a water source is a CSG emergency release if—

(a) the release—

(i) is necessary to avoid or respond to an emergency situation; and

(ii) may impact on the drinking water supply of a drinking water service provider; and

(iii) is authorised or required under an EP Act authorisation; and

(b) the CSG entity complies with the EP Act authorisation for the release.

'(2) A CSG emergency release may consist of a series of releases mentioned in subsection (1), but only to the extent the total period for which the releases occur is 12 months or less.

'(3) In this section— CSG entity means an entity who is the holder of a CSG environmental authority.

QMDC does not support the emergency release of CSG recycled water that may have an impact on drinking water supplies and asserts this should not be permitted under the Act. However, if CSG recycled water is released QMDC also asserts an emergency release should have a very limited timeframe of no more than 7 days. If a CSG entity perceives the likelihood of emergency releases their operations should not be allowed to proceed and an environmental authority (EA) be declined or revoked. No CSG activity or infrastructure should be allowed to proceed on floodplains or on sites known to pose risks because of climate change or variability.

The amendments to the *Water Supply (Safety and Reliability) Act 2008* (Water Supply Act) must provide rigorous requirements under the existing recycled water regulatory framework, for coal seam gas water impacting on town drinking water supply sources. DERM has to this date not released relevant information or facilitated robust community and stakeholder consultation on indirect and direct augmentation of coal seam gas recycled water into water sources. Without access to and discussion on scientific and social research both international and local the proposed amendments are unable to provide QMDC assurance that public health will be protected.

It is not only the responsibility of coal seam gas producers to dispose of the coal seam gas recycled water in an environmentally acceptable manner but in the view of QMDC also the responsibility of legislators and regulators to implement legislation and policy that provide a high level of protection for the QMDB and Great Artesian Basin.

Disposal should consider this region's NRM Plan (the Plan) whilst taking into consideration not only the individual impacts of each proposal but also the cumulative impacts of the whole CSG industry and other water users. The Plan states that by 2020, the following key water quality indicators should remain below baseline levels:

- Salinity concentrations at end of valley locations for specified median and peak EC unit levels and average salt loads
- Total suspended sediment loads for specified average and peak levels at locations;
- Pesticide concentrations for specified levels at set locations; and
- Nutrient concentrations for specified levels at set locations.

Options for disposal of coal seam gas recycled water currently include release into a water source (including to a watercourse, lake, dams, weirs or aquifers) or by directly supplying treated coal seam gas recycled water to a town as a source for drinking water supply are still contentious and fraught with scientific uncertainty.

The proposed amendments to allow prolonged emergency releases or exclusion from existing policy and legislative frameworks are not adaptive management strategies or actions. They will serve to further entrench a policy and legislative framework that increases risks to both the natural resources of a region and its local communities.

QMDC recommends that where the CSG companies make CSG recycled water available for 'beneficial use', the water must be:

- Subject to risk assessments based on the immediate, future or cumulative impact which may result from its use, taking into account potential contaminants including salt, surface and ground water interaction, changes to overland flow, and new and existing infrastructure.
- When water is released into streams or weirs, those streams or weirs are subject to chemical and biological monitoring to assess impacts; and all monitoring data be made available to the public within one month of collection.

QMDC submits that the new legislation should promote and encourage sustainable use of Great Artesian Basin water and ensure that practices relating to the exercise of water "rights" by CSG and petroleum projects will ensure high-quality stewardship of Great Artesian Basin and QMDB resources; minimise disturbances to Great Artesian Basin and QMDB resources; and protect Great Artesian Basin and QMDB resources for future human and environmental purposes.

Produced by: Kathie Fletcher, Geoff Penton, 5 September 2011
For further information, contact QMDC on (07) 4657 6200 or visit www.qmdc.org.au

'329GB Relationship with Environmental Protection Act 1994 for CSG emergency release
'(1) This section applies for a CSG emergency release by a recycled water provider, if a condition or requirement of the EP Act authorisation for the release is inconsistent with a condition or requirement of the provider's recycled water management plan or exclusion decision.
'(2) The EP Act authorisation prevails to the extent of the inconsistency.
'(3) Sections 197 and 198 do not apply to the provider for the CSG emergency release to the extent the provider complies with the EP Act authorisation for the release.

QMDC does not support this clause. It must be mandatory for the provider's recycled water management plan to fully consider a range of emergency conditions and plan for them within the stringent conditions of an EA.

'329GC Obligations for continued release of recycled water after CSG emergency release
'(1) This section applies for a CSG emergency release that becomes a supply of recycled water under a CSG recycled water scheme.
'(2) The recycled water provider or scheme manager for the scheme must, before the end of the compliance period for the CSG emergency release—
(a) prepare, and give to the regulator for approval, a recycled water management plan for the scheme under part 2; or
(b) apply for an exclusion decision for the scheme under part 9A, division 3.
'(3) Section 196 does not apply to a responsible entity for the scheme—
(a) during the compliance period; and
(b) if, under subsection (2), the provider or scheme manager for the scheme gives a plan to the regulator for approval or applies for an exclusion decision—until the provider or scheme manager is given a notice or information notice under section 206 or 326 for the regulator's decision on the application.
'(4) In this section—compliance period means 3 months from the day the CSG emergency release becomes the supply of recycled water under a CSG recycled water scheme.'.

QMDC does not support the continued release of an emergency release of CSG recycled water and asserts that this should not be permitted under the Act.
QMDC also asserts an emergency release should have a very limited timeframe of no more than 7 days. If a CSG entity perceives the likelihood of emergency releases their operations should not be allowed to proceed and an environmental authority be declined or revoked.
The cumulative impact of emergency CSG water releases by multiple CSG or other entities must be considered. An emergency release should be within the water quality limits set by any current or future Water Quality Guidelines

395 Amendment of sch 3 (Dictionary)
(1) Schedule 3, definitions CSG environmental authority and supply—
omit.
(2) Schedule 3—
insert—
'CSG emergency release see section 328GA.
CSG environmental authority means a coal seam gas environmental authority within the meaning of the Environmental Protection Act 1994, section 310D.
EP Act authorisation, for a CSG emergency release, means—
(a) a transitional environmental program under the Environmental Protection Act 1994, if the program contains public health conditions for the release; or
(b) an environmental protection order issued under the Environmental Protection Act 1994, chapter 7, part 5, if the order contains public health conditions for the release; or
(c) a direction or an emergency direction given under the Environmental Protection Act 1994, section 467 or 468 requiring the release.
public health conditions, of an EP Act authorisation for the release of coal seam gas water, means conditions or requirements—
(a) imposed to protect public health; and
(b) about assessing and minimising any impacts of the release on the drinking water supply of a drinking water service provider.
supply, of recycled water, means—
(a) for recycled water that is sewage or effluent—
(a) the reuse of the water by the entity that produces it; or
(b) the supply of the water, by the entity that produces it, to another entity for reuse.
(b) for coal seam gas water that is recycled water—
(i) the release (other than a CSG emergency release) of the water, directly or indirectly, into a water source, if it is used by a drinking water service provider in a drinking water service; or
(ii) the delivery of the water by an entity, other than a drinking water service provider who uses it in a drinking water service, to another entity, if the water is used by a drinking water service provider in a drinking water service;
(c) for other recycled water—supply of the water, by the entity that produces it (the producer), to another entity for reuse, other than another entity that, under a guideline made by the regulator and prescribed under a regulation, is a related entity of the producer.'.

QMDC submits the definition of public health should be extended to include those impacts which have environmental and cultural and spiritual components associated with water and Aboriginal belief systems.

The cumulative impact of emergency CSG water releases by multiple CSG or other entities should also be defined.

Appendix 2

Photos of a QGC coal seam gas camp inundated with flood waters.

These photos were passed to the Greens by a third party so it has not been possible to authenticate them.

Photos from the Friends of Felton website showing flood waters covering the sites of the Ambre Energy Coal-to-Liquids Plant and mine planned for the Felton Valley.

More photos available at: http://www.fof.org.au/index.php?id=6222

Water covering road which is part of the Ambre site. 10 Jan 2011

Water running into the Ambre project area from the north. 10 Jan 2011

10Jan2011. Hayden Rd (within proposed mine site).

27th Dec 2010:Hodgson Creek, 1km upstream from proposed mine site

These photos are from the website miningmayhem at:
http://www.miningmayhem.com/search/label/Ensham

They show the size of the pit at the Ensham mine in flood in January 2008 before its levee bank broke.

Water rushing through the breached wall.

Ensham No. 1 dragline completely under water.

In January 2011 floods it was the Cockatoo mine at Baralaba situated on the Dawson River and its anabranch whose levee walls were breached.

Before and after photos of the Cockatoo pit are available on the the miningmayhem website along with video footage captured by ch 9 showing the water rushing through the levee:

http://www.miningmayhem.com/search?q=flood

Appendix 3

Additional flood hazards posed by coal seam gas mining in agricultural areas.

One company [redacted], whose main operations will be centred on the western Darling Downs has reported to the Senate Rural Affairs and Transport References Committee that they will produce 4.6 million tonnes of salt as a by-product of gas drilling.[1]

A fourth csg project is currently going through state and federal approval processes so the total volumes of salt produced in parts of rural Queensland will be extraordinary and represent an additional factor to be considered in terms of flood planning and mitigation.

In a newspaper article, Senator Heffernan, the chair of the Senate committee, estimated the dimensions of 4.6 million tonnes of salt if it were stockpiled in one location as:

> "Eleven-point-three kilometres by 30m wide by 10m high - that'll be the pile of salt that'll be produced from this one mining approval," Senator Heffernan told representatives of the NSW Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS) attending the hearing.
>
> "This is for you to think about because we don't want this to happen in NSW - that's approved under the onerous provisions of the Queensland DERM (Department of Environment and Resource Management).
>
> "I wouldn't like that on my landscape."[2]

At the hearings on 9 August, another member of the committee, Senator Edwards, noted of the salt plans by Arrow Energy which operates in the eastern Downs, that:

> Your people on the ground, who are very professional and highly qualified, were not able to answer where the waste goes. If you are going to truck it out in B-doubles—6½ million tonnes was one example of the waste that is going to be produced over the next 20 years—at 34 tonnes for every B-double, that is a lot of transporting out to an approved government-regulated waste facility, which, I suspect, does not exist right now. Is that right?
> **Mr Gossman:** On the specifics of whether such a waste facility exists or not, I would need to obtain those technical details and come back to you.
> **Senator EDWARDS:** So we still do not have an answer, do we?[3]

Given limited movement of vehicles during flooding events, stockpiles of salt would not be able to be easily moved offsite, even if a waste facility of such a size existed in Queensland and could be built not to leach salty water.

At this same day's hearing the chair was scathing about the answers provided by officials from the Commonwealth environment department who had responsibility for approving these developments. The Commonwealth officials could not provide baseline data to the committee on a range of matters and under questioning it was clear that there had been a complete failure to apply the precautionary principle by state and federal public servants. For this reason Senator Heffernan's concluding comments to them is worth citing at length:

> **CHAIR:** I thank the department and advise you that we will be inviting you back, because I did not realise that you were bringing along the paper-shuffling side of the department. Do you actually have scientific expertise on these issues in your department? This is the paper side of the

argument; we were wanting to get into the figures and the science. Your chief guy does not even know the extraction out of the Great Artesian Basin. I find that embarrassing. So perhaps you could come back. To give you an idea of what we do not really want, I will read something out of your submission:

> The proponents have a general obligation to take all reasonable measures to ensure that CSG water, including extracted groundwater, treated or amended CSG water, and any associated waste water, brine crystals and/or solids generated as a result of treatment have no significant impact on any MNES either during or beyond the life of the projects. The conditions require the companies to develop detailed water management monitoring plans for the minister's approval and, once approved, comply with these plans.

That is very good bureaucratic language. It really means nothing in terms of something you can touch and feel. You have just demonstrated that this industry is 3,000 miles ahead of the regulators, and you are saying, 'Yeah, we're going to fix that, and we'll do something with the millions of tonnes of salt later.' Is it fair to say that at this stage of the game, for all those sensitive environmental issues, we really do not know the answer? You have not provided any answers. All you have given is long, bureaucratic gobbledygook. It is embarrassing to me to have the department come along and not even be able to tell me what the extraction out of the Great Artesian Basin presently is or how much the savings are—those sorts of baseline questions that, for a farmer, are like being able to count your own sheep. Thank you very much, but we are going to invite you back to get some real answers.[4]

This very much sums up the Queensland Greens' view of the failure of management of this industry. It should not have been exempted from the state's planning, vegetation and other laws. Queensland's variable climate requires it to be excluded from regions where it could cause irreparable harm to our water resources, agricultural lands, rural communities and environmentally sensitive areas.

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[1] Ms Tanna, QGC, Committee hearings 9 August 2011. Senate Rural Affairs and Transport References Committee, Hansard, p. 22. Available at: http://www.aph.gov.au/hansard/senate/commttee/s208.pdf

[2] 'CSG mine's mountain of unwanted salt', *Brisbane Times*, 10 September 2011. Available at: http://www.brisbanetimes.com.au/queensland/csg-mines-mountain-of-unwanted-salt-20110909-1k1xz.html. Accessed 19 September 2011.

[3] Senator Edwards, QGC, Committee hearings 9 August 2011. Senate Rural Affairs and Transport References Committee, Hansard, p. 41. Available at: http://www.aph.gov.au/hansard/senate/commttee/s208.pdf

[4] Senator Heffernan, Committee hearings 9 August 2011. Senate Rural Affairs and Transport References Committee, Hansard, p. 57. Available at: http://www.aph.gov.au/hansard/senate/commttee/s208.pdf
MNES stands for Matters of National Environmental Significance.