

SUBMISSION TO
Major Project Development Assessment Processes,
Productivity Commission

From
EAST END MINE ACTION GROUP (INC)
MT LARCOM QLD

Date: 21 March 2013

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21 March 2013

Major Project Development Assessment Processes,
Productivity Commission
Locked Bag 2
Collins Street East
MELBOURNE VIC 8003

Dear Sir/Madam,

Thank you for accepting our Submission to your study into regulatory objectives and key features of Major Project Development Assessment Processes.

East End Mine Action Group Inc (EEMAG) members strongly oppose COAG implementing policy to permit reduction in assessment and compliance requirements for major projects which are likely to further weaken environmental standards and bring additional hardships to affected landholders. We consider that proposed “streamlining” of processes would provide scope to weaken compliance standards.

For quite some time there has been considerable community angst regarding the potential adverse impacts from proposed mining/CSG projects, and mistrust about the adequacy of science used for EIS assessments and of Government’s approval processes. The Mt Larcom rural communities experiences in the mid 1970’s when the East End mine project was first mooted equals present day concerns. It was through the Mt Larcom and District Mining Protest Group that the water monitoring program was attached as lease conditions in 1976. In the interval between Protest Groups, 1980 to 1995, water monitoring data was collected but not analysed.

EEMAG’s submission is a case study of post project assessment and approval consequences resulting from inadequate technical assessments and regulatory failure under a confidential minimum compliance agreement. The message coming from our experiences is clear. Without proper participation and empowerment of affected stakeholders and their experts, little or nothing gets done and both the affected community and environment will suffer hardship and subsidise the project.

Our submission may be seen as confrontational. This is not EEMAG’s intention. It is our plea for the powers that be to recognise the serious shortcomings/inequities that do exist in DAA and regulatory processes, especially when compromises are made during negotiations between Government and industry, and to act to prevent and/or rectify them.

EVIDENCE DEVELOPMENT ASSESSMENT AND SUBSEQUENT REGULATORY PROCESSES FAIL TO PROPERLY ASSESS ADVERSE IMPACTS AND FAIL TO PROPERLY PROTECT WATER SUPPLIES AND LIVELIHOODS OF AFFECTED LANDHOLDERS AND THE ENVIRONMENT

Resource industries wield enormous bargaining power when negotiating development of projects with Government. Our submission quotes documentary evidence of a project that had groundbreaking Special Conditions for protection of affected landholders water supplies and land values legislated with grant of leases in 1976 but evaded proper compliance through negotiating a confidential minimum compliance agreement with the Queensland Government in 1977. FOI documents show that minimum compliance was reinforced within a 1995 incentive package by Cabinet for an expansion project that trebled mine production with

environmental approvals unchanged – i.e. no recognition of off-lease impacts – i.e. an unofficial policy of non-enforcement of stated environmental standards.

Regulators are required to abide by Government policy. We interpret this includes unofficial policy such as the above agreements. In our case these legally binding agreements resulted in regulatory capture and administrative use of inaccurate technical assessments shaped to conform with the political agreements. This nullified opportunity for acceptable regulatory outcomes for the adversely affected community and the environment.

Our claims are supported by findings in the \$100 K federally funded Mt Larcom Community Restoration Project (CRP) Report (Prof Brian Roberts & others 2003). The CRP Report closely examined the performance of two industrial companies - Cement Australia's East End limestone mine and Southern Pacific Petroleum's Shale Oil plant at Targinnie. One example, Page 49 reports under "Background to Lack of Trust between Government, Mining Companies and the People", Quote: "there is evidence that the problem of 'capture' of departmental officers by mining companies, through compliant senior bureaucrats, has not been overcome."

Re: The Productivity Commission Issues Paper, Page 16 statement "Appropriate rules governing the behaviour of decision-makers serve to preclude inefficient and improper conduct."

On the face of it, this is very reassuring, but the Productivity Commission's statement is not consistent with EEMAG's experiences.

Over the years we have taken our case to all available State and various Federal levels of government. Our issues flow into administration of Water Reform and the National Water Initiative through Calliope River Water Resources Plan. We found that administrative systems for both levels of Government basically protect the unofficial policy of "minimum compliance", the use of inaccurate hydrology reports shaped to fit a political agreement and the non-enforcement of environmental standards for water resources for East End mine.

From our evidence and experiences we can only conclude that independent review bodies such as the Queensland Ombudsman and CMC cannot produce a finding of inefficient and improper conduct, maladministration or wrong decisions against regulators complying with confidential "minimum compliance" agreements between a company and the Government. There is no administrative process to appeal the merit of inaccurate technical reports by Regulators that are shaped to suit a political agreement for minimum compliance and/or non-enforcement of environmental standards.

Legal advice of 10 November 2004 states "that there is no basis either under the Mining Lease, statute or common law by which you can obtain a merits review of the decision of the Chief Executive". A Barrister's legal advice dated 20 September 2004 advised that it is important to note a Judicial Review is not a merits review and states "**A merits review would involve the Court in matters of politics and policy, which are the business of the executive and legislative branches of government.**" The Barrister recommended against taking a Judicial Review as we needed a merits review. (My bold)

Our evidence, collated from information obtained since EEMAG was formed in 1995, shows development assessment and approvals processes are full of loopholes; adversely affected landholders/others are disempowered in assessment and regulatory processes; the dissenting views of highly reputed experts independent of Government /the company are disregarded by regulators (who use only their own and company science) and "consultation" processes are

largely hollow since Government and the Company have already made their decisions. Our evidence is detailed below;

- East End mine has the benefit of a 1977 “minimum compliance” agreement. In Government’s endeavours to remove QCL (now Cement Australia) from dredging coral in Moreton Bay, FOI shows that on 14 August 1995, in decision 04763, Cabinet agreed to a package of support to QCL if they proceeded with the Gladstone Expansion. During negotiations for the Incentive Package for their 1996 \$220 M trebling of mine production, QCL sought assurance, Quote (FOI 14 June 1995) “Subject QCL Gladstone Expansion: Critical Issues. Item 5. Obtaining some form of guarantee on mining lease renewals so as to assure QCL’s shareholder that there are adequate, secure, approved raw material reserves. Item 7. Guaranteeing the status quo remains with regard to environmental licenses on current operations.” - i.e. for environmental approvals for the mine’s tripling of production / lease renewals to be framed on the basis of no off-lease impacts;
- when East End mine’s 1996 Gladstone Expansion Impact Assessment Study (IAS) Hydrology Report evaluated “pumping from the mine has created a steep drawdown cone extending approximately 500 metres from the pit boundaries” – i.e. negligible off-lease dewatering impacts had occurred - the findings were robustly contested by numerous affected landholders. The IAS hydrology findings were not consistent with off-lease water loss landholders were seeing in bores, wells and perennial creeks in light of long-term local knowledge on other droughts, and were viewed with deep mistrust. A dissenting report against the mine’s IAS Hydrology findings dated October 1995 undertaken at EEMAG’s insistence was included as an Appendix in the IAS;
 - HOWEVER, the mine’s allegedly grossly inaccurate IAS hydrology report had already been approved by regulators on 21 September 1995 and the IAS process permitted NO public objections against the mine’s expansion.
 - ❖ Evidence shows the 1996 IAS Hydrology Report (discredited by subsequent findings) grossly understated the mine’s impacts and thus was shaped to fit the expansion project’s incentive package for environmental approvals framed on no recognition of off-lease impacts. The findings were/are protected from effective challenge under the IAS process;
- Inaccurate IAS findings that understate negative impacts are not able to be overturned after the IAS is approved. A letter of 4 June 2001 from the office of the Minister for Environment states “The Minister has noted your request for a review of the 1996 IAS undertaken by QCL at the time of its expansion of operations in Gladstone. There is no mechanism for undertaking such a review.”
- In July 1997, Dr Peter James produced a whistleblower hydrology report for the East End Mine Community Liaison Group that evaluated an area of approximately sixty (60) square kilometres suffering variable loss of water levels of up to 20 metres caused by mine dewatering in East End and Bracewell aquifers with loss of perennial stream flow, and identified Karst limestone development in the mine pit. (Dr James’ report was undertaken principally at EEMAG’s insistence that the IAS 1996 hydrology and the mine’s February 1997 modelling report findings of a mine impacted area of 7.5 sq km seriously understated mine impacts.)(The regulators/mine refused to accept Dr James’ findings.)
- QCL’s principal leases expired on 31 July 1997 and the Mines Minister was unable to renew the leases which he then allowed to continue under his discretion. However,

legal advice to EEMAG asserted that since QCL was in non compliance with the special conditions attached to the leases through their failure to assess the data and distribute reports from 1980 – 1995 (advised by DPI Water Resources letter of 15 May 1995) and provide make good replacement water supplies for affected landholders there is compelling evidence the Minister overreached his discretionary powers.

- Evidence shows East End Mine’s 1996 IAS Hydrology Report was discredited by the Department of Natural Resources (DNR) Position Paper (1997/98) Figure 9 (reproduced on Page 29) which shows an approx 20 sq km zone of mine caused water loss by 1991 – 5 years prior to the mine consultant’s 1995/6 IAS Hydrology findings that “pumping from the mine has created a steep drawdown cone extending approximately 500 metres from the pit boundaries”. DNR’s Figure 8 identified an area totalling approx 60 sq km (shown by blue and green areas on Map on Page 30) suffering variable loss in water levels by 1996. DNR in 1998 ruled only 22 sq km at East End was attributable mine dewatering and that the water loss in Bracewell (upstream of East End) was not due to mine dewatering.
- EEMAG’s local knowledge and Dr James dissented with DNR’s 1997 Draft findings. EEMAG immediately hired a highly regarded modelling consultant from the University of Queensland and signed a contract with the University for a study to be completed in advance of DNR’s Final Position Paper due in February 1998 so DNR would have to take the University Professor’s findings into account before finalising their Report.
- (However, prior to the Professor completing his contractual undertaking we are alleging a Senior DNR Officer intervened to delay the Report without informing EEMAG, the client, to the detriment of our strategy for contesting DNR’s findings prior to finalisation of their Report. DNR’s action is independently confirmed in “Industry/ Community Relationships in Critical Industrial Developments” (Hoppe 2005) on Page 9.51 by the author’s interview with a government official.)
- The Interim Conclusion from the Professor’s study for EEMAG dated August 1998 states “On the basis of the available evidence, it cannot be concluded that there is no effect of mine dewatering on the Bracewell aquifer, for the following reasons” and raised the likelihood of “confined flow conduits”. His findings were disregarded by DNR since their Final Position Paper had been published and was being used as a benchmark for make good replacement of lost water supplies.
- FOI shows that on 22 October 2001 the Environmental Protection Agency (EPA), in their assessment of environmental approvals for East End mine’s lease renewal, deemed the discredited and outdated 1996 IAS Hydrology Report (a steep drawdown cone extending approximately 500 metres from the pit boundaries) as “still valid” as the basis to frame East End mine’s 2002 Environmental Management Overview Strategy (EMOS) and Environmental Authority with no increase in environmental harm and no new EIS required; EPA’s decision set aside hydrology findings subsequent to 1996 including DNR (1997/98) a 22 sq km mine impacted zone, the mine modelling consultant’s (2000) findings of a 33 sq km mine pit zone of influence and EPA’s own “Independent” expert’s May 2001 assessment that supported mine/regulators findings. EPA’s decision ignored the independent technical findings in 1997 and 1998 of a zone of mine caused water depletion affecting approx 60 sq km with loss of perennial creeks. EPA’s assessment decisions circumvented the requirement for a new EIS with a public objections process for the 2002 EMOS and Environmental Authority

- Thus the adequacy and appropriateness of the mine's 2002 EMOS and EA, that are fixed on allegedly false 1996 IAS findings of no off-lease dewatering impacts were protected from effective challenge by EPA's 2001 decisions;
 - ❖ There is evidence that in October 2001 EPA acted in conformity with the mine's 1995 expansion project incentive package agreement "Guaranteeing the status quo remains with regard to environmental licenses on current operations." i.e; no recognition of off-lease impacts, i.e. an unofficial policy of non-enforcement of environmental standards for management of water resources for East End mine
- From 1995 to 2011 (DNR&M's last assessment) DNR&M Hydrologists / mine consultants used inappropriate Darcian flow (as used for a sand aquifer) methodology (and other alleged inaccuracies and omissions) to evaluate the mine's impacts on groundwater resources. The aquifer system intercepted by East End limestone mine is a complex karst limestone aquifer with sinking streams, sink holes and conduit flows (natural occurring pipes in the limestone) and with interconnections between surface streams and groundwater with both fast and slow flow components to the aquifer. Dingle Smith, a leading Australian limestone hydrologist, in compiling the Groundwater Resources Segment of the Mt Larcom CRP Report (2003) clearly explained these and other issues. In 2002 he raised his concerns with DNR and the mine and wrote to the Minister for Natural Resources and Mines on 18 October 2002 that it is recognised in Australia and Internationally that standard groundwater modelling assumptions and techniques (as used by the mine's modelling consultant for his 1997 and 2000 findings) are not valid to assess underground flow rates in a karst aquifer with conduit flows. Regulators disregarded Dingle Smith's dissenting views then and continued to disregard them in technical meetings with experts Dingle Smith, Associate Professor Brian Finlayson and Dr Peter James (all representing EEMAG) during consultations in 2007 and 2008.
- We understand that Queensland's Department of Environment and Heritage Protection does not deem groundwater levels as an environmental value and thus do not regard widespread mine-induced loss of groundwater (that sustains perennial stream flows and eco-systems) as causing environmental harm. In our case this determination is facilitated by misclassification of the karst limestone aquifer as Darcian flow since the interconnection between surface streams and groundwater systems go unrecognised. This flows into science used for Calliope River Water Resources Plan.
- When a proponent applies for a new lease for an expansion, Queensland's 2004 section 251 (4) of the EP Act 1994 restricts public objections against an environmental authority to just the amendment, thus protecting the original component of a highly defective environmental authority from effective challenge.
 - In 2006, when the mine sought an additional lease for dumping spoil and received an amendment to their Environmental Authority, EEMAG tested Section 251(4) in the Land and Resources Tribunal by drafting and lodging substantial objections against the adequacy and appropriateness of the mine's 2002 EA and EMOS. A Barrister's advice dated 13 March 2006 states "Fundamentally, your objections are to the existing Environmental Authority and are therefore forbidden by paragraph 251(4)(a)." and recommended our objections be promptly withdrawn.
 - ❖ We are alleging that Section 251(4) of the EP Act 1994 is bad law, in that it can be, and was misused to protect an unrepresentative of impact Environmental Authority that conforms with a political agreement for non enforcement of environmental standards from effective challenge

- A letter from the Director General of the Environmental Protection Agency (EPA) dated 10 March 2009 explains that EPA intends to issue a Draft amendment to Cement Australia's existing Environmental Authority for the mine's proposed new mining lease application 80156 *on a flood plain* adjacent to its current leases, not a *new* Environmental Authority.
 - Given our experiences to date and the mine's binding "minimum compliance agreements" we can only conclude that the mine's whole of project, amended Environmental Authority will continue to be fixed on the allegedly false and misleading 1996 IAS Hydrology findings of "a steep drawdown cone extending approximately 500 metres from the pit boundaries", even though the mine is presently still conducting an EIS for the new lease application.
- Calliope River Water Resources Plan (approved in 2006 despite EEMAG's 2005 copious evidence to the National Water Commission that it was not framed on the best available science) is coordinated with East End Mine's EMOS and Environmental Authority under the EP Act's "standard criteria" and does not recognise the mine modelling consultant's (2000) 33 sq km mine impacted zone suffering entrenched overuse in the Larcom Creek sub-catchment. Calliope WRP does not recognise the approx 80 sq km zone suffering overuse with loss of perennial creek flow by 2006 identified by water monitoring data collected quarterly since 1977 (depicted in the Map below of Feb 2007 compiled by EEMAG from water monitoring data). Calliope WRP does not recognise that the extensive limestone deposits in East End - Bracewell – Cedar Vale areas of Larcom Creek sub-catchment are a karst limestone aquifer system with interconnections between surface streams and groundwater that are required to be managed as a single resource under the National Water Initiative and returned to environmentally sustainable levels of extraction, i.e. there is substantial evidence Calliope River WRP is not framed using the "best available science".
 - under COAG Agreements on Water Reform and the National Water Initiative there is no process to appeal the merit of science used for a Water Resources Plan, even when the science is demonstrably inaccurate,
 - ❖ Thus a Water Resources Plan that is coordinated with an EMOS and Environmental Authority that exempts a mine from proper compliance with Queensland's Water Act 2000 (i.e. Water Reform and NWI) under a political agreement for minimum compliance is protected from effective challenge under COAG Agreements for Water Reform and NWI.
- The National Water Commission (April 2006) Assessment of Water Reform Progress, P4.3 states: "The conversion of licenses to allocations is occurring through the water resource plan and resource operations plan processes (under the Act)." We interpret that that Water Reform's process facilitates East End mine's discharge license (up to 10 megalitres per day under its EA or up to 30 megalitres per day under its current TEP) to be converted to a water allocation – that is ownership of the pit discharge water allocated to the mine.
 - there is evidence that Calliope River WRP, by use of inaccurate science, legitimizes the political trade-off /re-allocation of the bulk of the water resources accessible to small landholders (the area is unlicensed) in the interconnected East End / Bracewell areas in the sub-catchment of Larcom Creek to a powerful multi-national mining company that has discharged most of the water downstream as waste since 1979.
 - ❖ This alleged reallocation, or potential reallocation, is contrary to the intent of the mine's 1976 Special Conditions that were stated to be legislated to

safeguard landholders' water supplies and to the principles and objectives of Water Reforms. It discriminates against landholders suffering mine induced water loss who are required to comply with Water Reforms but whose water supplies are not properly protected under regulatory processes that are bound by political "minimum compliance" agreements.

- On the following page see Map ([February] 2007) EEMAG used water monitoring data collected quarterly since 1977 to depict the zone suffering serious overuse in the interconnected karst limestone aquifer system of Larcom Creek sub-catchment of Calliope River WRP, upstream of East End mine that is exempt from being required to be returned to sustainable levels of extraction under all relevant regulatory processes.

The zone suffering overuse is coloured in orange. East End mine pit is shown in red. The mine modelling consultant's (2000) 33 sq km mine impacted zone is shown. The original water monitoring area of 85 sq km is outlined. This map was used for a public presentation at Mt Larcom in February 2007 (shortly after approval of Calliope River WRP) in conjunction with a petition seeking that the mine install a Grout Curtain to repair / avoid mine-caused water loss. (The Government did not respond to the Petition which was presented to Parliament by Hon Liz Cunningham.) (The map may take a moment of two to show.)

EEMAG members wish to thank Groundwork Plus for use of the Map

NOTE: Since the near record rains of 2010, there have been four consecutive wet years of well above average rainfall for Mt Larcom. Rainfall for 2010 was 1962 mm, for 2011 it was 912 mm, for 2012 it was 984 mm, and to 4 March in 2013, it is 1228 mm. Average yearly rainfall for Mt Larcom is *837 mm. (*DNR 2011). In early 2011 the mine's normal licensed pit dewatering of up to 10 megalitres per day was not able to prevent the lower and mid benches of the mine from being flooded, and pumping only "broke even" with sub-surface inflow. In March 2011 the mine received approval for a Transitional Environmental Program (TEP) to increase discharges to up 30 megalitres per day. Two more TEP's have been approved since their first in 2011.

Under the quite extraordinary recharge conditions of 2010, Cedar Vale recovered in isolation some seven months before Bracewell and later again, that portion of East End aquifer most distant from the mine managed to stage a full or near full recovery. However from December 2012 water monitoring data, EEMAG interprets that section of the depleted East End aquifer extending some four to five kilometres to the north (area of approx 33 sq km, about the size of the depleted zone depicted by the mine's 2000 modelling) remains severely affected.

The storativity of the still very substantially depleted East End aquifer is, in itself, too small to sustain the volumes being discharged by the mine pit. Volumes are thus churning through the East End aquifer from the higher Bracewell topology. The mine is the lowest point in the aquifers 0 -15 M AHD and with up to 30 megalitres per day discharge, the mine is so well connected that it is able to discharge water faster than it can recharge.

EVIDENCE THAT REVIEW & ACCOUNTABILITY BODIES CANNOT FIND MISCONDUCT, MALADMINISTRATION, WRONG DECISIONS ETC WHEN REGULATORS COMPLY WITH UNOFFICIAL GOVERNMENT POLICY OF "MINIMUM COMPLIANCE"

From our evidence we can only conclude that the independent review bodies such as the Queensland Ombudsman and Criminal Justice Commission (CMC) cannot find misconduct, wrong decisions, maladministration etc when regulatory agencies comply with unofficial Government policy that exempts a project from proper compliance with environmental standards, i.e. shaping technical reports to conform with a political agreement for minimum compliance and understating the extent of impacts, and ineffectively enforcing Special "make good" Conditions for provision of alternative water supplies to affected landholders, etc.

At various intervals between 1999 and 2006 EEMAG and many of our members took complaints to the Queensland Ombudsman, and EEMAG and one member to the Criminal Justice Commission/Crime and Misconduct Commission. The Ombudsman and CMC ultimately used escape clauses in their legislation to refuse to investigate or to continue to investigate our complaints. The CMC referred us back to the Ombudsman. At no time were we told there was no substance to our grievances.

On 27 September 2002 the Ombudsman wrote to EEMAG refusing to continue to investigate our complaint under the Ombudsman's Act, because he lacked the expertise to assess the technical evidence and was unable to form *any* opinion, quote from Page 5 "Therefore, due to the scientific and technical complexity of that evidence it is not possible to form a view as to

the unreasonableness of the Commissioner's satisfaction within the context of the Special Conditions."

The Ombudsman's letter also stated on Page 11, "Considerations Relevant to Proposed Mining Lease Renewal. As you are aware, sometime ago DNRM agreed to hold off the renewal of the relevant mining leases pending the outcome of the investigation of this Office. In the interim mining has continued under the 1977 lease conditions, pursuant to the MRA.

DNRM has recently advised that the EPA has accepted the independent ground water report on East End [that supported the mine modelling consultant's findings of a mine impacted zone of 33 sq km] and, on the basis of a new Environmental Management Overview Strategy, has issued a new Environmental Authority for the project. In light of the EPA's advice DNRM sought permission to proceed with the renewal of the mining leases." and

"I have written to DNRM and EPA to that effect, and in the course of correspondence asked that the Departments attempt to address EEMAG's concerns, as outlined above." End of quote

On 27 September 2002 (the same day he wrote to EEMAG) the correspondence differed in that the Ombudsman's letters to DNR&M (and EPA) said, quote: "To my mind those issues do not presume any failing in the way that the Department has progressed the matter thus far."

- EEMAG were alerted to the Ombudsman's actions when we began receiving letters from Ministers and administrative agencies saying the Ombudsman had said they "had done nothing wrong".
- EEMAG conducted an FOI search and members were astounded that the Ombudsman could refuse to investigate our complaints on the basis it was not possible to form an opinion and then write to the Departments in such a way that they could interpret the Ombudsman's comments as a clearance that they had done nothing wrong.

EEMAG sought a review of the Ombudsman's decision on 15 February 2004 and learned through him that EPA had provided QCL with an amended Environmental Authority and the short Judicial Review timeframe had already expired. EEMAG then obtained FOI of EPA's 22 October 2001 decisions to frame East End mine's 2002 EMOS and amended Environmental Authority on the outdated and allegedly discredited 1996 IAS/EIS with no significant increase in environmental harm and no need for a new EIS.

On 1 March 2004 we lodged this new information with the Ombudsman. (DNR&M's advice to the Ombudsman quoted in his letter above, "EPA has accepted the independent ground water report on East End and, on the basis of a new Environmental Management Overview Strategy, has issued a new Environmental Authority for the project." was shown to be wrong, since EPA did not issue a *new* EA, but an *amendment* to the Mine's Transitional Authority which was framed on the 1996 IAS findings NOT on the 2001 hydrology report for EPA's "Independent" Assessment that supported the mine modelling consultant's findings of a 33 sq mine impacted zone. In his review, the Ombudsman was dismissive.

- An Officer of the National Competition Council verbally advised me in 2003 that his organisation was bound by the Ombudsman's "clearance" of DNR&M and EPA.
- The Ombudsman's letter to DNR&M was interpreted as "clearance" in correspondence to EEMAG on at least four separate occasions by Government. "We have done nothing wrong" was routinely quoted to us, and our complaints were

dismissed as unjustified. We interpret in the case of the Queensland Premier it was also used to refuse to deal with EEMAG, quoted below;

A letter from the Premier to Hon Liz Cunningham dated 19 Aug 2003 states, Quote: “Officers from my Department have now investigated the matters raised in the submission [by EEMAG] to the Productivity Commission.” and “The handling of the dispute by agencies of Queensland Government has been reviewed by the Ombudsman, with no specific directions being given to change the way in which the matter was being dealt with. The government has taken the view that it will not deal with the individual interests of property owners through EEMAG.”

We refer to the Federally funded Mt Larcom CRP Report,(Prof Brian Roberts and others 2003) Quote: **Recommendation “8. Mining Lease Renewal Process and role by EPA and DNR&M.**

Issue: There is evidence that the renewal of the East End Mining Leases on the 20 March 2003 was:

- i) Approved despite vigorous community opposition and claims of perpetual non-compliance due to residual impacts.
- ii) Approved several years after the previous lease had lapsed but unlicensed mining was allowed to continue for that out-of-lease period.
- iii) Re-worded to remove groundwater replenishment as a condition of renewal, as in the original lease conditions.
- iv) Was made retrospective to 1 August 1997 with the unacceptable deletion of the term “to affect injuriously” from the 2003 Special Conditions.
- v) Renewed on the false premise that mining affected groundwater only in the immediate vicinity of the mine.

Action: Item ii) only quoted here

- ii) A probity audit be conducted of the extent and timing of all correspondence relating to the East End Mining Lease renewal, **including the role of the Ombudsman**, to validate the legality of the renewal process.” (My bold)

In 1995 to 2006 we expected regulators role was to properly enforce the mine’s Special Conditions and the Government’s stated environmental standards so as to properly protect landholders water supplies, livelihoods and the environment. We thought that if we provided technical proof of our claims that the regulators would act.

- In 2013 we now understand that regulators role is to implement Government policy. We interpret this includes unofficial policy, which may be at variance with effective enforcement of Special Conditions and stringent environmental regulations.

In hindsight with the benefit of information on East End mine’s “minimum compliance” agreement received with the Doctoral Thesis “Industry/Community Relationships in Critical Industrial Developments (Hoppe 2006) and 1999 evidence of “unofficial policy of non-enforcement of environmental regulations for mining” received from the Whistleblowers Action Group in 2011 by a former senior Mines compliance officer (short extract quoted below), we conclude the Ombudsman determined the regulators were complying with unofficial Government policy – i.e. the 1977 minimum compliance agreement and 1995 incentive package approved by Cabinet. We interpret that once the Ombudsman had become conversant with the fact that these agreements removed his jurisdiction he excused himself from participation but he did not make EEMAG aware of the reasons for his decision.

1999 EVIDENCE OF AN UNOFFICIAL POLICY OF NON-ENFORCEMENT OF ENVIRONMENTAL REGULATIONS FOR MINING IN QUEENSLAND AND OF REGULATORY CAPTURE

An unofficial policy of non-enforcement of environmental regulations for mining in Queensland and of regulatory capture is documented in the 30 July 1999 Whistleblowers Action Group Inc (Qld) submission to House of Representatives Standing Committee on Environment and Heritage. Page 4 refers to the Connolly and Ryan Inquiry in 1996/7 into, inter alia, the effectiveness of the CJC (now CMC) in dealing with this matter. Quote: “Counsel assisting the Connolly/Ryan Inquiry concluded that there was prima facie evidence of official misconduct that could have been investigated. The CJC accepted during argument before that Inquiry that a policy of non-enforcement existed, but argued that the policy did not constitute official misconduct because the non-enforcement policy had been well publicised. In spite of this admission, the two principal parties to the matter – the Department of Mines and the Queensland Mining Council – both denied and continue to deny any non-enforcement.”

We interpret that the CJC (now CMC) adopted the position that the policy of non-enforcement was not misconduct because it was unofficial Government policy. From our experience this unofficial policy is ongoing.

- Minimum compliance for the Special Agreement Act East End mine is not a “one off”. It is mirrored in revelations regarding Mount Isa mine’s operations (allegedly causing elevated blood lead levels in children) in Queensland Hansard 13-15 May 2008, Page 1792, Para 6 quote: *“The Mount Isa Mines Limited Agreement Act 1985 facilitated a lower standard for lead emissions than that applicable to other parts of the state. It was enacted by the Bjelke-Petersen government in response to then mine owner MIM’s threat to move smelting operations offshore should higher and more expensive emissions standards be enacted.”*

The Attorney General and Minister for Justice at a Country Cabinet at Boyne Island in December 2008 did not dispute the existence of minimum compliance and verbally advised EEMAG delegates that “minimum compliance” commitments are hard to unravel and to seek a political solution.

- A recent comment was that the above situations have been “grandfathered over” and these types of issues have now been overcome.

This view is not supported by our ongoing experiences or by the various recent news items regarding Queensland’s approvals processes for massive CSG projects and of alleged company leverage to facilitate approvals within a certain timeframe despite proper environmental impact assessments not being complete.

From the Queensland Cabinet Handbook, available on the Internet, I interpret that the full details of any agreements that may have been negotiated between the CSG companies and Government would be legally binding for project operations and confidential, and I understand are not likely to be accessible even to the Courts.

THE MERIT OF TECHNICAL DECISIONS BY DEPARTMENT OF NATURAL RESOURCES AND MINES OFFICERS (ALLEGED TO BE SHAPED TO COMPLY WITH A POLITICAL AGREEMENT) IS NOT ABLE TO BE EFFECTIVELY CHALLENGED

Since 1995 EEMAG (and the findings of five (5) experts independent of Regulators/ the mine) has dissented with regulators and East End mine consultants regarding the accuracy of their assessments of mine impacts. DNR&M Hydrologists and mine's consultants (including their groundwater modelling consultant) use inappropriate Darcian flow methodology, such as for a sand aquifer (and other alleged inaccuracies and omissions) to evaluate East End mine's impacts on the complex karst limestone aquifer system intercepted by the limestone mine.

Karst limestone aquifer systems have sinking streams, interconnections between surface flows and groundwater, sinkholes which channel surface flows underground during significant rainfall events and conduit flows i.e, natural occurring pipes in the limestone bodies, and have both fast and slow flow components. It is recognised in Australia and internationally that Darcian flow methodology is not valid for karst aquifers and that standard groundwater modelling assumptions and techniques (based on Darcian flow) are inappropriate for a karst aquifer with conduit flows. EPA's "Independent" Assessment's of 2001 and 2002 endorsed the mine modelling consultant's findings – i.e. use of inappropriate methodology.

However there is no process to effectively challenge the merit of science used by Regulators.

- Legal advice dated 10 November 2004 is "that there is no basis either under the Mining Lease, statute or common law by which you can obtain a merits review of the decision of the Chief Executive."
- Legal advice dated 25 November 2004 is that taking a case against the Company to the Land & Resources Tribunal (LRT) does not amount to "an independent review" of DNR&M findings, since to take an action in the LRT under Sec 363 (2)(h) of the *Mineral Resources Act 1989* we would have to sue the Company and prove the liability and quantum of our claim against the Company and this is entirely different to merely seeking a meritorious review of the decision of the Chief Executive under Special Condition 4 attached to the mining leases. The likely cost of a case against the Company was quoted in 2004 as approx \$450,000.00 – \$550,000.00 which is quite out of reach for small landholders.

For a long time EEMAG laboured under the misapprehension that the administrative process for "Natural Justice" would surely safeguard our welfare and that, given the trust inspired by the term natural justice, it would ensure that an administrative decision would be based on a full, frank and fearless evaluation of the best available science.

However we learned that Natural Justice was only a process requiring regulators to accept all the documentation, but not necessarily to properly consider or take all the information into account. A Barrister's advice on 20 September 2004 re taking a Judicial Review against a technical assessment by DNR&M under the mine's Special Conditions states on Page 3, quote: **"It is important to note that judicial review is not a merits review. In other words, a public official may make an erroneous decision or a decision that is not the best decision in the circumstances, and, provided all the required legal procedures were followed, the court will not set that decision aside under the *JR Act*. The reason for this restriction is that the only business of the Court under the *JR Act* is to enforce the legality of decision making. A merits review would involve the Court in matters of politics and policy, which are the business of the executive and legislative branches of government."**(My bold)

Page 16 of the Barrister's advice states, quote "If, for example, the Chief Executive were forbidden to delegate, then the question of bias could not arise, no matter in what form it

manifested itself, because the statutory scheme would have removed it from issue by placing all the power in the Chief Executive's hands. If the drafter of the Special Condition had wished to avoid that consequence, he could easily have done so.

In effect, the Special Condition condones any bias that may be present in the Chief Executive." (Barrister's use of blue colour) (End of quote)

The barrister advised against Judicial Review since our interests could only be served by a merits review.

BACKGROUND TO THE DISPUTE

The East End Mine Action Group was formally established in September 1995 in response to widespread farmers' concerns that dewatering impacts from East End limestone mine appeared to be seriously affecting water supplies and perennial creek flows. We were all deeply mistrustful of the integrity of the Draft Interim August 1995 hydrology report by the mine's water monitoring consultant and had been advised the mine intended to release an Impact Assessment Study for a proposed tripling of production that included building a railway line and a new kiln at Fisherman's Landing at Targinnie.

Pre-mining (dewatering began in mid 1979) the East End/Bracewell areas were recognised as zones with significant sub-artesian supplies that supported environmentally sustainable small scale irrigation. District records show that in 1980/81 there were 20¹/₂ small scale irrigators and that in November 2001 only 6¹/₂ remained with a corresponding decline in consumption. These areas were broadly brushed by the CSIRO in 1992 as being "Good Quality Agricultural Land."

- In May 1995 we were deeply shocked to learn East End mine had failed to evaluate and report water monitoring data for fifteen (15) years from 1980 to August 1995 – in direct contravention of the Special Conditions 9 and 11 attached to the mine's leases. The mine had collected water monitoring data quarterly since 1977, but had failed to evaluate the data and report to the Department since 1980, who in turn failed to analyse the mine's findings or report to landholders as required. The regulators also failed to require the mine to properly comply with their Special Conditions. Landholders had trusted the regulators were properly enforcing the Special Conditions legislated in 1976 with granting of the leases and our confidence was badly shaken.

EEMAG has maintained ongoing activity since then (17 years). The mine has not been required to properly redress their impacts under their Special Conditions, has allegedly (in company with regulators) used inaccurate hydrology reports to minimise / avoid obligations to affected landholders and have not been required to act to repair / avoid their cumulative depletion of the interconnected karst limestone aquifer system under their Environmental Authority.

We had to struggle to gain some understanding of complicated administrative systems, to correlate and interpret information collected through various FOI and RTI applications and to digest and understand hydrology reports and legalities etc. Our understanding of the reasons for the poor regulatory outcomes and administratively endorsed injustices visited on our members has been gleaned piecemeal over the years.

1977 "MINIMUM COMPLIANCE" AGREEMENT FOR EAST END MINE PROJECT
The 2006 release of Doctoral Thesis "Industry/ Community Relationships in Critical Industrial Developments" (Hoppe) documents that East End mine's regulatory (and thus

technical assessment) processes are bound by a confidential 1977 “minimum compliance” agreement for the East End mine project.

On Page 9.19 an East End mine company manager’s statement is documented, quote: “We are legally in compliance with regulation, compliance and with everything, so where is the problem? You see that is not just our problem, but it also applies to government agencies. You’ve got these old guys still there sticking to decisions they made in 1977. That is what I believe is holding us back in East End.” The Thesis reports the manager’s statement as an indication of two major points; a minimum compliance strategy - clearly a legacy of the 1970s and early 1980s - and a defence strategy of earlier East End Mine (EEM) specific decision-making by government agencies spanning over 3 decades. (My underline)

The Thesis states that the deep structure commitment to minimum compliance excludes many contingency options and include only those that are mutually agreed upon [between government and the mine] and are consistent with earlier decisions; that government stakeholders have little choice but to live with the legacy of earlier decision-making; and that it is necessary for Government stakeholders to defend earlier EEM decision-making because it controls socio-environmental community demands and equally important, minimises legal exposure.

- Page 8.38 states “The practice of sparse and slow data distribution while pursuing minimalist compliance is not new. Industrial organisations and government institutions frequently use this method as a means of controlling the situation (Roome, 1998; Wilson, 2000)”

After 11 years’ dispute the above revelations did not come as a surprise since they explained the reason for the way we had been treated.

The Doctoral Thesis, “Industry/Community Relationships in Critical Industrial Developments” was undertaken under stringent guidelines of Griffith University. It is a comparative study between Holcim quarries in Switzerland, FEKLHAS (that very successfully use genuine participatory collaborative planning with the community i.e. abides by “Best Practice”) and the Holcim owned mine at East End in Queensland (that operates under a minimum compliance agreement, has more than 17 years’ ongoing dispute with affected landholders). The Thesis examines the way the two projects function and includes comparative tables on the considerable differences between the two. It is available on Website: <http://www4.gu.edu.au:8080/adt-root/uploads/approved/adt-QGU20060704.120839/public/03Main.pdf> which begins at Chapter 6.

The information we have referenced above is included in Chapters 8, 9, and 10 and/or Pages 9.19 and 9.23). The whole of the Doctoral Thesis from Chapter 6 is really worth the Productivity Commission’s consideration since it details the effectiveness of FEKLHAS’ genuine participatory collaborative planning process both for the Company and for stakeholders.

Refer Pages 6.1 to 6.3: Quote of extract “In spite of significant socio-political as well as socio-environmental difficulties, the FEKLHAS project via its commitment to collaborative planning passed through the prescribed government approval processes in record time. The project was broadly heralded as “just about exceptional, really exemplary and as a good example for other projects”.

(The whole of the Doctoral Thesis is available at Website: <http://www4.gu.edu.au:8080/adt-root/public/adt-QGU20060704>)

PROVISION OF ALTERNATIVE WATER SUPPLIES UNDER THE MINE'S SPECIAL CONDITIONS – REGULATORY PROCESS BASED ON TECHNICAL ASSESSMENTS

We acknowledge that since 1995 East End mine has drilled, equipped and commissioned about 25 alternative water supplies to affected landholders under their 1976 and 2003 Special Conditions.

However these alternative water supplies were very hard won. To achieve this EEMAG as a team had to successfully challenge the accuracy of the 1996 IAS Hydrology Report (achieved on the matter of some alternative water supplies only, but NOT for the mine's EMOS and Environmental Authority). People had to prevail in the face of defer and delay tactics employed by regulators and the mine since the Special Conditions have no timelines to be met. Obtaining alternative water supplies in the zone of water depletion evaluated by the mine and regulators required concerted and oft repeated representations to the mine and to DNR&M whose role it is to administer disputes. It commonly took three (3) years for the mine to drill, equip and commission an alternative supply after DNR&M ruled on a landholder's entitlement. Until 2006 the mine would provide only one alternative supply when a landholder lost more than 1 supply.

The worst case was for a landholder who lost his irrigation supply in late 1995 and the mine did not commission a supply suitable for irrigation until 2008 – 13 years after losing his irrigation bore - after years of substantial economic loss, almost losing their farm and after much haggling and anxiety.

- Attached is a letter from the above landholder who is within the DNR 1997/98 approx 22 sq km zone of mine-caused water loss. It includes quotes from a professional valuation of loss of land values undertaken in November 1998, quotes from an accountant's report undertaken in March 1999 on economic loss. The landholder has contributed the letter as evidence he has NOT received administrative justice under regulatory duty of care.

People who have evidence their water supplies have been affected by East End mine but are outside the (2000) 33 sq km zone of depletion evaluated by the mine's modelling consultant and recognised by Regulators and the mine; but within the zone of water depletion evaluated by hydrologists independent of mine/regulators (and identified by water monitoring data collected quarterly since 1977) are in no man's land since they have no affordable scope for redress.

- Legal advice of 10 November 2004 is "that there is no basis either under the Mining Lease, statute or common law by which you can obtain a merits review of the decision of the Chief Executive" [of the Water Act 2000]. The likely cost of a case against the Company was quoted as approx \$450,000.00 – \$550,000.00 which is quite out of reach for small landholders. The solicitor verbally recommended against legal action as mining companies have very deep pockets, and from his previous experience will use all sorts of legal manoeuvres to delay proceedings and use up money the landholder cannot afford.

A Barrister's advice on 20 September 2004 states on Page 16, Quote: "[In effect, the Special Condition condones any bias that may be present in the Chief Executive.](#)" (Barrister's blue colour) He recommended against taking a Judicial Review against DNR&M's assessment of an entitlement to an alternative water supply, since what we needed was a merits review.

THE TERM “*INJURIOUSLY AFFECTED*” - I.E. RECOGNITION OF LOSS OF LAND VALUES DUE TO WATER LOSS DELETED FROM EAST END MINE’S SPECIAL CONDITIONS AT LEASE RENEWAL IN MARCH 2003

Crown Law advice to Department of Mines and Energy (DME) of 22 July 1996 was supplied to EEMAG through the East End Mine Community Liaison Group. The Crown Law advice was in response to a DME question whether there was a generally recognised legal definition of the words “*affect injuriously*” as included in East End mine’s 1976 Special Condition 11.

Crown Law advice Page 8 states, “However, if the landholder can point to the value of his property being reduced because of a temporary or permanent impairment of the groundwater supply, then he has been “*injuriously affected*” for “*there is a title to compensation, if by reason of such interference the property, as a property, is lessened in value*”.

- Regulators and the mine refuse to recognise loss of land values occurred due to mine-caused water loss, and refuse to recognise that delayed and slow provision of alternative water supplies to affected landholders resulted in economic loss.
- The Land Court decision of 28 February 2002 reduced primary industry classified land unimproved values by a further 10% (the 25% valuation increase had already been reduced 10 % at the preliminary conference) in the approx 30 sq km “Kalf zone.”. Various local sales that failed to reach the asset values were rejected under the Spencer test by the Land Court. In line with an agreement reached with the Minister, DNR subsequently blighted a 170 sq kilometre area where the Land Court had reduced unimproved valuations by 12.5% due to water loss and district negativities.

The term “injuriously affected” was removed from the mine’s Special Conditions at Lease Renewal in March 2003. EEMAG had written numerous letters seeking that the Special Conditions be strengthened for lease renewal, however they were weakened.

PUBLIC PARTICIPATION IN DAA AND REGULATORY PROCESSES ARE NOT STRUCTURED TO EMPOWER AFFECTED STAKEHOLDERS OR THEIR EXPERTS

We acknowledge that development assessment and approvals and ongoing regulatory processes do provide opportunities for public participation. Unfortunately we find them to be largely hollow since affected landholders and our experts are not empowered in decision making.

- However “Consultation” processes are better than no Consultation. The (inadequate) headway EEMAG as a team has made by participating in consultations (with the crucial and generous support of our highly qualified limestone hydrogeologist experts who undertook much of their work pro bono with payment of travelling costs only and travelled from Canberra, Melbourne and Brisbane/Tasmania) would not have happened at all without the regulatory opportunity for consultations.

A expert opinion on consultations / community participation is included in the Mt Larcom CRP Report (Prof Brian Roberts & others 2003), Refer Executive Summary, Item 12, Quote:

- “In recent years the consultative approach has been incorporated into planning procedures. There is evidence that on several occasions the consultation process has been abused and has degenerated into an inequitable manipulative farce.”

One of the better things to emerge from QCL’s 1996 Gladstone Expansion IAS was the requirement for a Community Liaison Group (CLG). The concept of a problem solving forum for affected landholders was excellent. A well constituted, empowered and

participatory CLG could offer a comfortable and secure environment for affected landholders to raise their own problems caused by adverse impacts. When East End mine began in the 1970's, it divided the community between those supporting the mine (jobs and development) and farmers fearing loss of their water supplies, damage to livelihoods and other problems. Often individuals feel isolated and intimidated by having to front the mine repeatedly to raise issues they want redressed, especially if there is a perceived lack of sympathy from mine workers as well as defer and delay tactics from mine management. Unfortunately the East End Mine CLG did not realise its potential.

- We now understand East End mine CLG's function was bound by the Regulating Agencies / mine's commitment to minimum compliance for the mine. We can only conclude it was intentionally designed / structured to be ineffective.

A comparative table from Page 8.45 of "Industry/Community Relationships in Critical Industrial Developments" (Hoppe 2006) is copied below as an expert evaluation, depicting differing consultative structures between FEKLHAS in Switzerland and East End Mine CLG.

"Table 8.3.5. The CLG a genuine participatory forum? A comparative summary"

Theme	FEKLHAS	EEM
Participatory Forums	<i>-Calanda Commission, Coordination Team and FEKLHAS Project Commission</i>	Community Liaison Group (CLG)
Structures	-Agreed guidelines, Constituted Obligations and responsibilities, Genuine power sharing constituted in quorum voting rights	-No genuine power sharing. No Constituted obligations or Responsibilities. No voting rights of any kind
Time of Inception	-Prior to project proposal. Established simultaneously with the start of the planning and development processes.	-Established 16 years after mining Operation commenced. No previous Participatory structure available
Social Trust	-Social climate of trust and Collaboration -Commitment to participatory fairness -Forum for problem solving and innovative participation eg. Collaboratively developed Alternatives -Participatory structures successfully continue to contribute to an effective and productive industry/community relationship. They greatly contribute to social trust development, which has turned into a matter of routine.	-Social climate of distrust and suspicion -No commitment to genuine participatory collaboration -CLG used as a political forum to justify and defend individual positions. Agenda items discussed but with limited outcomes -Genuine participatory structure was never established. In its absence no solution to the dispute could be achieved. Historical background and performance record contributed greatly to the downward spiral of distrust and suspicion.

Note: East End mine withdrew from the CLG after the October 2000 meeting and the CLG folded.

Around the time of lease renewal in March 2003, QCL established a “Community Consultation Forum” that draws participants from the Mt Larcom Show Committee, SES, School, P&C and Chamber of Commerce – worthy community organisations that are beneficiaries of the mine. However this is a public relations exercise for the mine and not a problem solving forum for affected landholders.

LIMITED OUTCOMES FROM TECHNICAL CONSULTATION PROCESSES WITH DNR&M THAT INCLUDE EXPERTS INDEPENDENT OF DNR&M AND MINE, AND EEMAG DELEGATES WITH LONG TERM LOCAL KNOWLEDGE BUT WHO ARE NOT EMPOWERED IN THE PROCESSES

Current administration of regulatory systems does not provide a process to effectively challenge technical reports that are not framed using the best available science. EEMAG has had to struggle through the Consultative process to make progress towards regulators/the mine recognising the extent of mine dewatering impacts.

Since the release of “Industry/Community Relationships in Critical Industrial Developments” (Hoppe 2006) we are now aware that East End mine’s minimum compliance strategy excludes many contingency options except for those that are mutually agreed upon between government and the mine and are consistent with earlier decisions. We interpret from this that recognition of the extent of impacts must be agreed upon between the mine and the regulators.

Regulators use only their own and company science for evaluating East End mine impacts.

The dissenting views of Dr Peter James, Dingle Smith and Brian Finlayson (representing EEMAG) were consistently disregarded during technical consultation (community participation) meetings in 2007 and 2008 between DNR&M hydrologists, the East End mine manager, the mine’s water monitoring consultant and EEMAG delegates. Interested people were permitted to sit in as observers. EEMAG’s experts and delegates were not empowered in decision making on the extent of mine impacts or the methodology used for arriving at decisions which was controlled by DNR&M hydrologists who retained editorial control of reports.

After a Consultative Technical Meeting at Mt Larcom in September 2007, the above 3 experts conjointly worded and signed a letter to the Minister for Natural Resources & Water dated 21 September 2007 raising concerns on DNR&W’s consultation and technical assessment processes, quoted in full below;

Dear Sir,

East End Mine, Groundwater Issues

Having just completed a two day meeting with representatives of the DNR&W, discussing the above, we write to you to express a deep concern for the outcome.

The meeting of 13/14 September was held allegedly to achieve a consensus on the groundwater issues. However, assurances that the DNR&W was to act as an unbiased arbiter in this matter were negated by a lack of consideration given to dissenting evidence. Serious

scientific discussion was frequently brushed aside when well-reasoned arguments ran counter to the department's established view.

Based on more than a century of cumulative experience with geohydrology and karst aquifers, the undersigned have severe reservations about the department's conceptual plan and also its reliance on a groundwater contouring methodology that contains some basic interpretative flaws. Moreover, the department's adherence to analysis at a regional scale, based on Darcian principles, simply ignores conflicting evidence at a local scale.

Major environmental impacts on groundwater and surface streams have been apparent for a long time in the East End and Bracewell areas. The DNR&W unduly emphasizes the current drought as the only explanation for the impacts, at least for the latter area. This simplistic view again runs contrary to the weight of evidence.

Other investigative work done by the DNR&W up to this point has also been very limited in scope, considering the excellence of the monitoring program that has been established here. The bulk of the data obtained since 1977 have never been subject to rigorous analysis by the Department. Neither has the department attempted to incorporate into the conceptualization of aquifer behaviour much of the detailed knowledge and climatological data held by local landholders regarding, for instance, comparisons between the effects of the 1960s drought and that of the 1990s.

We understand that the content of the forthcoming departmental report lies entirely within the control of the DNR&W. We therefore express our concern that this report will not provide adequate balanced judgements nor logical conclusions and we wish to make it clear that our presence at the meeting in Mt Larcom on 13/14 September should not be taken as an endorsement of that report.

In summary, we would like to bring to your attention that, after more than a decade, the major environmental impacts still need to be resolved rationally and quantitatively and we would welcome your personal opinion in this respect.

Please find attached, for your information, brief notes on the qualifications and experience of the undersigned." End of quote.

The qualifications of EEMAG's internationally recognised consultants are:

- David Ingle (Dingle) Smith, Emeritus Faculty, Australian National University, Senior Fellow, Centre of Resource and Environmental Studies ANU, an eminent limestone hydrologist and geomorphologist, who has extensive karst aquifer experience that includes dye tracing.
- Associate Professor Brian Finlayson, (in 2007) Principal Fellow, Department of Resource Management and Geography, Graduate School of Land and Environment, The University of Melbourne, an eminent limestone hydrologist and geomorphologist; Even DNR&W has recognised that, within the consultative phase Brian Finlayson demonstrated knowledge, expertise and balance superior to that of any DNR&W participant.
- Consulting Engineering Geologist /Geotechnical Engineer Dr Peter James who has had a long-term involvement and is intimately familiar with the Mt Larcom hydrogeology.

CONSULTATION PROCESS FOR REVISION OF EAST END MINE'S WATER MONITORING PROGRAM

During consultative meetings with representatives of DNR&M, East End mine, EEMAG delegates and our three (3) experts at Mt Larcom from 5 to 7 March 2008, it was agreed that EEMAG Inc and our experts would have input into revision of the Water Monitoring Scheme for East End mine.

After having been invited to submit our input to the mine's new Water Monitoring Scheme we emailed our Submission to a DNR&M Officer on 2 August 2012. Our submission included the views of EEMAG's experts and delegates and initially states, Quote:

- "It is the opinion of EEMAG members and of our experts that the proposed new Program as presented is inadequate to properly monitor / clarify the extent of water loss caused by mine dewatering or to provide the information needed to understand how local aquifers function."

As we have not received any reply, on 15 February 2013 our Secretary wrote to the Minister for Natural Resources and Mines requesting advice on the matter.

MT LARCOM COMMUNITY RESTORATION PROJECT REPORT (2003 PROF BRIAN ROBERTS AND OTHERS) – FINDINGS STILL VALID

The 4 Volume Federally funded \$100 K Mt Larcom Community Restoration Project (CRP) Report (October 2003) (Team Leader Prof Brian Roberts; Prof Rod Jensen, Prof Jennifer McKay, Prof Noel Preston, Dr Mike Walker, Dingle Smith, Jess Spate, Graham Porter, Divu Halanaik). As part of its brief, the CRP Report closely examined the performance of two industrial companies – Cement Australia's East End limestone mine and Southern Pacific Petroleum's Shale Oil plant at Targinnie.

- Although the Mt Larcom CRP Report will be ten years old this year, there is a broadly based public perception that there has been only very limited, if any, genuine reform in the way approvals and regulatory processes are handled. Many of the findings of the CRP Report remain unchanged because nothing has been done to change the circumstances in relation to East End mine. Southern Pacific Petroleum's Shale Oil plant at Targinnie closed down. The Mt Larcom CRP Report identified grave deficiencies in regulatory processes for both projects. We have seen nothing to suggest that current regulatory processes for projects are any different. In our view the CRP Report's findings of serious inadequacies / inefficiencies are still valid.

We included comments on regulation of Shale Oil emissions as relevant to the CSG debate.

Note: The Mt Larcom CRP Report (October 2003) was presented to the Queensland Parliament by Hon Liz Cunningham in late 2003.

Executive Summary Items 10, 12, 13 and 14, Recommendations No 6 to 10 and Extract from Pages 48 and 49 of the main Mt Larcom CRP Report are quoted below:

EXECUTIVE SUMMARY (Extracts) Quote;

"10 Groundwater depletion and its relation to pump out procedures at the East End limestone mine was a major sphere of project investigation. The leading Australian limestone expert, who developed the groundwater segment of the study, concludes that modelling of the local

karst aquifer is not an appropriate methodology. In summary he attributes most of the water depletion to the operation of the QCL mine rather than to drought, gravitational drainage or landholder consumption. The mine pump-out figures were considered to be so poorly recorded as to be of little practical use, while the meter attached to the mine pit sump was not adequately maintained so as to provide a meaningful back-up alternative. An associated report analyses creek flow upstream of the mine in comparison with rainfall/runoff over time and identifies declining rainfall trends, but finds additionally that creek flow progressively and disproportionately declined due to mining and identifies a date when these effects markedly increased.

12. In recent years the consultative approach has been incorporated into planning procedures. There is evidence that on several occasions the consultation process has been abused and has degenerated into an inequitable manipulative farce.

13. Statewide there are several examples of the State abandoning the concept of co-existence by allowing political decisions to over-ride environmental considerations. The buyouts of Targinnie and lease renewals at Mt Larcom without first addressing residual impacts are considered prime examples. Once departures from decisions based upon science and sound environmental principles occur, planning and approval processes become a travesty and are liable to political and commercial manipulation. Such conduct may help explain the high level of community distrust and general loss of confidence in the administrative and political system. A summary of individual issues for corrective action is set out in the Recommendations section.

14. When political decisions pre-empt research findings, scientists and technical experts within Government Agencies operate in a highly stressful and compromised climate. Case studies at Mt Larcom and Targinnie show such circumstances are not conducive to good science and undermine the objective implementation of environmental legislation. As a result, regulatory compliance fails.”

RECOMMENDATIONS (Extracts) Quote:

“6. Lessons from Yarwun/Targinnie

Issue: The adverse effects of the Shale Oil development have become the best example of planning failure in Australia’s recent industrial history. If this social tragedy is not to be repeated, serious attempts to analyse shortcomings in the process of development approval must be documented. Insistence by the company that they meet world’s best practice while approximately 140 nearby landholders have lost the value of their property is untenable. The delay and non-release of a government funded and controlled health study is unacceptable. In addition the release of polluted runoff water from this ‘zero runoff site’ is illegal.

Action:

- i) Request the EPA to critically evaluate the sequential development of Stuart Shale Oil to date, and to identify how each identified weakness in the process must be corrected for future staged developments.
- ii) Ensure that further approvals for Stuart (SPP) meet triple bottom line requirements irrespective of pressures relating to return on investment, production costs or product yield.
- iii) Appoint an honorary independent consultant to analyse the failure of community engagement and environmental compliance processes at SPP’s operation. This report must identify the successes and failures of each organisation involved at

each stage of the development processes. This report must be compared to EPA's report in i) above to eliminate interpretive anomalies.

- iv) Undertake a socio-economic analysis of the sequential situations of landholders in the SPP impact zone, documenting community requests, company responses, departmental input, health and property sales. Special attention must be given to demands for compensation and reactions to such demands. Class action negotiations to be included.

7. EPA Responses and Effectiveness

Issue: There is a well developed perception in segments of the local community that the EPA has:

- i) Insufficient resources to meet its EIS and compliance obligations.
- ii) Been instructed to test only for certain pollutants, notably NOX, SOX and particulates.
- iii) Omitted to report on serious air pollutants such as Dioxin and PCB's
- iv) Been sidelined either to a reference agency or bypassed entirely in important stages of the formal EIS process.
- v) Undertaken compliance action only in the event of complaints being received from alleged affected parties.
- vi) Entrusted its mining compliance operations to ex-Mines Department staff with a poor performance record.
- vii) Allowed political overriding of its best endeavours to insist on adequate environmental safeguards.
- viii) Failed to ensure that EMOS requirements and commitments have been met before supporting renewal of mining leases under more relaxed conditions.

Action:

- i) A study be made of the adequacy of EPA resources to prosecute environmental transgressors based on sufficient monitoring and analysis of pollution occurrences.
- ii) An investigation be made into the reasons why several dangerous pollutants are not monitored in EPA's air quality protocols.
- iii) The role and authority of EPA in the EIS, monitoring and compliance activities related to air and water impacts of development, be checked and evaluated at each stage of the application/approval/renewal process in the Gladstone area.
- iv) A report be commissioned to validate the contribution of the EPA to solution of conflict resolution on groundwater loss near East End mine.
- v) An examination of the role and authority of EPA in the renewal of mining leases at East End mine in 2002/3

8. Mining Lease Renewal Process and role by EPA and DNR&M.

Issue: There is evidence that the renewal of the East End Mining Leases on the 20 March 2003 was:

- vi) Approved despite vigorous community opposition and claims of perpetual non-compliance due to residual impacts.
- vii) Approved several years after the previous lease had lapsed but unlicensed mining was allowed to continue for that out-of-lease period.
- viii) Re-worded to remove groundwater replenishment as a condition of renewal, as in the original lease conditions.
- ix) Was made retrospective to 1 August 1997 with the unacceptable deletion of the term "to affect injuriously" from the 2003 Special Conditions.

- x) Renewed on the false premise that mining affected groundwater only in the immediate vicinity of the mine.

Action:

- i) Unless parties to the QCL dispute can arrive at some alternative compromise and district settlement, an independent dye-tracer study be undertaken to determine the extent of mining's impact on groundwater in the northern section of the East End aquifer and the Bracewell and Cedar Vale areas. Once in-principle agreement has been reached, all dye injection, sampling and analysis be done by jointly appointed, independent specialists requiring no input from landholders, the mine or State Government except permission to enter. This study must be continued until the extent of the groundwater area affected by the mine is agreed on.
- ii) A probity audit be conducted of the extent and timing of all correspondence relating to the East End Mining Lease renewal, including the role of the Ombudsman, to validate the legality of the renewal process.
- iii) An authoritative evaluation be made of the chronological development of conflict between the mining company (as assisted by state agencies) and the community, as represented by EEMAG Inc. The evaluation must test the veracity of alleged deliberate inaccuracies and omissions as listed in the present report, and investigate the acceptability of the responses and inputs from the state agencies involved.
- iv) Through restoration of a properly constituted Community Liaison Group, re-commence negotiations between the mine, affected community and state agencies, to expedite the return of mine pump-out water to the local groundwater through injection at sites most likely to benefit the watertable. Reasons why this cannot be done under the EPA Act 1994 must be overridden in favour of agreed compromises.

10. Community Engagement: Equity and Ethics

Issue: There are perceptions that there is evidence of illegal activity and unethical behaviour on the part of industry and state agencies. A distinction needs to be made between companies and agencies involved in legal environmental negotiations and approval processes and those that engage in unethical conduct and deal in manipulative procedures. This warrants investigation.

Action:

- i) A report is required to define what constitutes legitimate and legal planning, consultative and impact assessment practices and to separate the legal from the moral obligations in this environmental conflict study so as to;
 - (i) highlight weaknesses in current processes and,
 - (ii) to use this information to improve future regional conflict resolution in Queensland.

Both the East End mine and Stuart Oil should be used as case studies of process failure.

Extract from Pages 48 and 49 Mt Larcom Community Restoration Project Report (Oct 2003)

“ 2.3.2. Background to Lack of Trust between Government, Mining Companies and the People

The Mt Larcom study must be viewed against a background of favourable treatment of mining companies by the Queensland government, at the expense of landholders and the community in general. Driven by income from royalties and rail freight, government has consistently made it easy for companies to get on with mining, while pacifying the community with Acts and Regulations designed to protect the environment and the livelihood of affected landholders. While the evidence of shonky dealing during the 1990's may be regarded as outdated and no longer relevant to today's 'enlightened' policies, there is evidence that the problem of 'capture' of departmental officers by mining companies, through compliant senior bureaucrats, has not been overcome.

It is informative to compare the most recent (2002) environmental conditions (and the local community's queries on them) to the proven accusations made of the government/company relations during the 1990's. Attachment 18 shows the current lease renewal conditions and EEMAG's queries on QCL's renewal. If this documentation is compared with documents and press articles published between 1991 and 1997, the lack of trust on the part of landholders can be appreciated. The difference between policy intention and implementation reality brought matters to a head in the Criminal Justice Commission and the Senate. These matters would not have been exposed had it not been for a whistle-blower and a sympathetic press. To quote the editor Courier Mail (10/10/97) 'For too long Queensland Mining ministers have been no more than cheersquad leaders for the industry instead of public guardians. It is time for that role to be reversed.' This editorial coincided with an expose by the same newspaper headed 'Open Cut' in which one mine was used as a case study of what was said to be happening across the state. In that investigation by Wayne Sanderson (C.M. 4/10/97) the central question was 'Why are mining ventures that threaten Queensland's farmland, water resources and environment being approved?' Appendix 12 gives in chronological order Mining Environmental Officer Leggate's statements of administrative failure (1991), the Senate Select Committee extracts of Leggate's allegations, Sanderson's expose on the Charters Towers gold mine, and his editor's call for an end to obfuscation by government.

The earlier allegations against departments responsible for legal compliance with mining conditions remain much the same today:

1. Turning a blind eye to breaches.
2. Accepting flawed arguments
3. Avoiding exposure and accountability
4. Compliant new appointments
5. Accepting false claims on environmental success
6. Facilitating new developments and renewals
7. Not evaluating costs and benefits of mining
8. Reacting to political pressure for development
9. Making public interest secondary to company interest
10. Absence of checks and balances in implementing the law
11. Reform being token and ineffective

These accusations were originally made by informed and dedicated mines department officers more than a decade ago. The extent to which these failures still occur in State Departments which have carriage of mining and environmental legislation, are a reflection of the moral dimension of the conflict between government, the mining company and landholders at Mt. Larcom."

DISPUTE ABOUT HYDROLOGY FINDINGS THAT BEGAN IN 1995 AND IS ONGOING

EEMAG is alleging that the Hydrology Report for East End limestone mine's Gladstone Expansion Project's 1996 IAS is false and misleading and that its findings are shaped to conform with government's 1995 incentive package agreement on environmental approvals based on no recognition of off-lease impacts

The mine's 1996 IAS document also constituted an Environmental Impact Statement (EIS) under the requirements of Queensland's *Local Government (Planning and Environment) Act 1990*.

The consultant who assisted with construction and management of East End limestone mine's quarterly water monitoring program for 18 years from its inception in 1977 authored their August 1995 Draft Interim assessment of the mine's dewatering impacts that was presented to landholders during a meeting at the mine on 14 August 1995.

- The Report "Groundwater Monitoring around Bracewell-East End Mining Leases" found "a steep local drawdown cone limited to a distance of the order of half a kilometre from the pit" - i.e. negligible dewatering impacts had migrated outside of the mine's working lease boundary.

The August 1995 Hydrology Report was incorporated as a support document in QCL's \$220 M 1995/96 IAS Gladstone Expansion Project as Appendix D

- Unbeknown to landholders, FOI shows on the same day as their meeting at the mine, 14 August 1995, Cabinet agreed to a package of support to QCL if they proceeded with the Gladstone expansion. Due to their inability to secure additional licences to dredge coral limestone from Moreton Bay QCL had been forced find alternative deposits. FOI shows on 14 June 1995 Queensland Cement Ltd (now Cement Australia) had requested the Queensland Coordinator General to approve tripling East End mine's production on unchanged environmental approvals, Quote: "Subject, QCL Gladstone Expansion: Critical Issues, Item 5. Obtaining some form of guarantee on mining lease renewals so as to assure QCL's shareholder that there are adequate, secure, approved raw material reserves. Item 7. "Guaranteeing the status quo remains with regard to environmental licenses on current operations" - i.e. for environmental approvals for the mine's expansion/lease renewals to be based on no recognition of off-lease dewatering impacts. (FOI shows regulators accommodated this request)

East End mine's water monitoring consultant produced an auxiliary Technical Report No 95/11, October 1995, reinforcing his August findings, for the 1995/96 IAS. His subsequent Report conceptualised inappropriate Darcian flow methodology (i.e. even predictable flow as in a sand aquifer) despite recognition of karst development on page 43 quote, "Rainwater enters the limestone through scattered recharge areas where poorly developed sink holes and solution channels are traversed by surface drainage channels. More widespread, less obvious recharge must also occur by infiltration through the soil mantle. However, records of water table levels in boreholes indicate that the former process is the more important in the East End area." – i.e. a karst limestone aquifer with sink-holes, interconnections between surface flows and groundwater and with conduit flows or pipes in the limestone - which is non-Darcian flow. (Several "Non-Darcy flow" Reports are included in the References.)

- QCL's October 1995 Draft IAS under Hydrology on page 47, 7.1.3, quote: "Expansion Proposals Relevant to Water Resources Assessment. "The only aspects of the proposal to expand cement works production capacity which would affect water

supplies in the Mt Larcom area are the increased rate of mining and the change in method of transporting limestone between the East End Mine and Fishermans Landing.” - **Note: There is robust evidence this claim is manifestly untrue since in a karst aquifer, the very next blast could intercept a major conduit /solution channel that dewateres the conduit/aquifer system to that level of excavation.**

- We are alleging that East End mine’s consultant over emphasised drought by designating Bracewell (upstream of East End) as a “control area” unaffected by mine dewatering and attributed its 8 metre water loss to drought that he then superimposed on and subtracted from East End aquifer losses - thus allowing him to say that the steep drawdown cone around the mine rapidly attenuated and that mine impacts extended only approx 500 metres from the pit boundaries – i.e. negligible off-lease impacts.
- On 21 September 1995 Queensland DPI Water Resources (now DNR&M) as Regulators, approved the August 1995 Draft Interim findings for the IAS, Quote: (included in the IAS in Appendix D): “..DPI considers these assessments are reasonable given the complex hydrology and data available at this time.”
- The Department’s September 1995 endorsement was not consistent with their hand drawn water level contour maps 1977 to 1985 using the water monitoring data nor with a **Ministerial Memo** (FOI) dated 20 December 1988 (almost 7 years previously) by the then Irrigation & Water Supply Commission. (The DPI Water Resources officer who provided the Ministerial advice was still employed in the Rockhampton office in 1995), quote “Data on hand indicates that water levels may have fallen by up to 2.5 metres at distances of **2 km from the mine** due to mine dewatering... The obvious conclusion is that the local farming community fears are realistic.”

The IAS approval process was not influenced by Dr Peter James’ brief October 1995 dissenting review of the mine consultant’s findings which was undertaken in response to strong community rejection of the mine consultant’s August 1995 Report. Dr James report is published in the IAS, (Appendix E). Dr James found total East End aquifer water level losses of 13 metres but accepted the mine consultant’s 8 m drought thesis in good faith without independent verification. James commented that monitoring strongly indicated the limestone encapsulating Borehole 03 [approx 1.5 km from the mine] is hydraulically connected to the mine and that the mined aquifer is recharged, at least partly by surface water in Machine Creek. He queried whether mine pumping had migrated to lots 59 and 71 – approximately 5.5 kilometres outside the East End working lease - and expressed concerns of mine related stresses upon Machine Creek.

- There was no public objection process for the East End mine’s tripling of production under the 1996 Gladstone Expansion IAS.

February 1997: Use of standard groundwater modelling (Darcian flow assumptions) to assess mine impacts on the karst limestone (non-Darcian) aquifer system by East End mine modelling consultant

Due to public controversy about the IAS Hydrology, in 1996 the mine and DNR decided that the mine should develop a groundwater model. The decision was made despite knowing that the trendline data generated by the water monitoring program lacked the specific inputs required for modelling. The East End mine drilled some 40 odd new bores to obtain additional data and hired a modelling consultant to construct a groundwater model. The consultant produced his Draft Findings in February 1997 – of a mine impacted zone affecting approx 7.5 square kilometres. His findings were greeted with much scepticism and disappointment by

EEMAG members as it too did not reflect what was occurring in their bores and wells, or in creeks that had been perennial pre-mining.

July 1997: Assessment of East End mine dewatering impacts by Consultant for East End Mine Community Liaison Group

After EEMAG's ongoing representations to Member for Gladstone Liz Cunningham (who held the balance of power) and to the Mines Minister, it was agreed that an "Independent" expert would be hired to review the model, under the auspices of the East End Mine Community Liaison Group. Dr Peter James was appointed at EEMAG insistence on the sole proviso that EEMAG would accept his findings.

- However Dr James found the model so unrepresentative of the circumstances that he abandoned his review of the model and in July 1997, produced a whistleblower report with findings of mine impacts upon more than 60 square kilometres of East End and Bracewell (upstream of East End) with loss of perennial stream flows in several creek systems. He also withdrew his earlier acceptance of the mine's water monitoring consultant's 1995 drought thesis that he had accepted in good faith while compiling his brief October 1995 Review for the IAS when given only restricted data access. Dr James reported from an inspection of the mine: "...that karst activity, in the form of open channels and pipes, can be observed to quite deep levels within the open pit; within 5-10m of the base of the pit and well above the pristine water table."
- The Regulators and the mine would not accept Dr James' findings.

The Mt Larcom CRP Report (2003) Groundwater Resources Segment by Dingle Smith reviewed all hydrology Reports and under "Regional falls in groundwater levels" Page 32, Quote: "The report by Dr James (1997) analyses the borehole monitoring records to compare changes in groundwater level. This map is reproduced here as **Figure 1**. The comparisons are between the map of 1979 groundwater levels (accepted by all parties and included in earlier reports) and the observations from monitored boreholes for the period 1995-96. (See Figure 3.)" *(Note Figure 3 is provided on Page 30 and is based on DNR's 1997/98 Map 8)*

"Such comparisons would be widely regarded by hydrogeologists as the accepted way to interpret patterns of change due to the mine de-watering. As far as I can see, this approach of a map of change in groundwater levels over the whole region has not been attempted in the reports by and Associates [for EPA] although similar methods are reported DNR (1998)."

Evidence DNR Position Paper (1997/98) discredited the 1996 IAS Hydrology findings

Figure 9 (dated 12 Feb 1997) DNR Position Paper (1997/8) used fully recharged pre-mining aquifer level comparisons to confirm full aquifer recharge at Bracewell in March 1991 and rule that under these peak recharge conditions, mine dewatering created a recharge shortfall over approx 20 square kilometres of the East End aquifer in 1991 - 4 years PRIOR to the mine's IAS Hydrology Reports – thus discrediting the 1996 IAS findings. DNR's Figure 8 Groundwater Monitoring Bores shows an approx 60 sq km zone suffering water loss by 1996. Electronic Copy of DNR Figure 9 is on Page 29 below and copy of DNR Figure 8 (renumbered Fig 3 for the Mt Larcom CRP Report (2003) showing zone of water loss identified by monitoring data in blue and green, with known limestone deposits pencilled in by D Smith for the CRP Report is on Page 30.) They may take a moment or two to appear.

EEMAG wishes to thank DNR&M for the use of Figure 9 below.

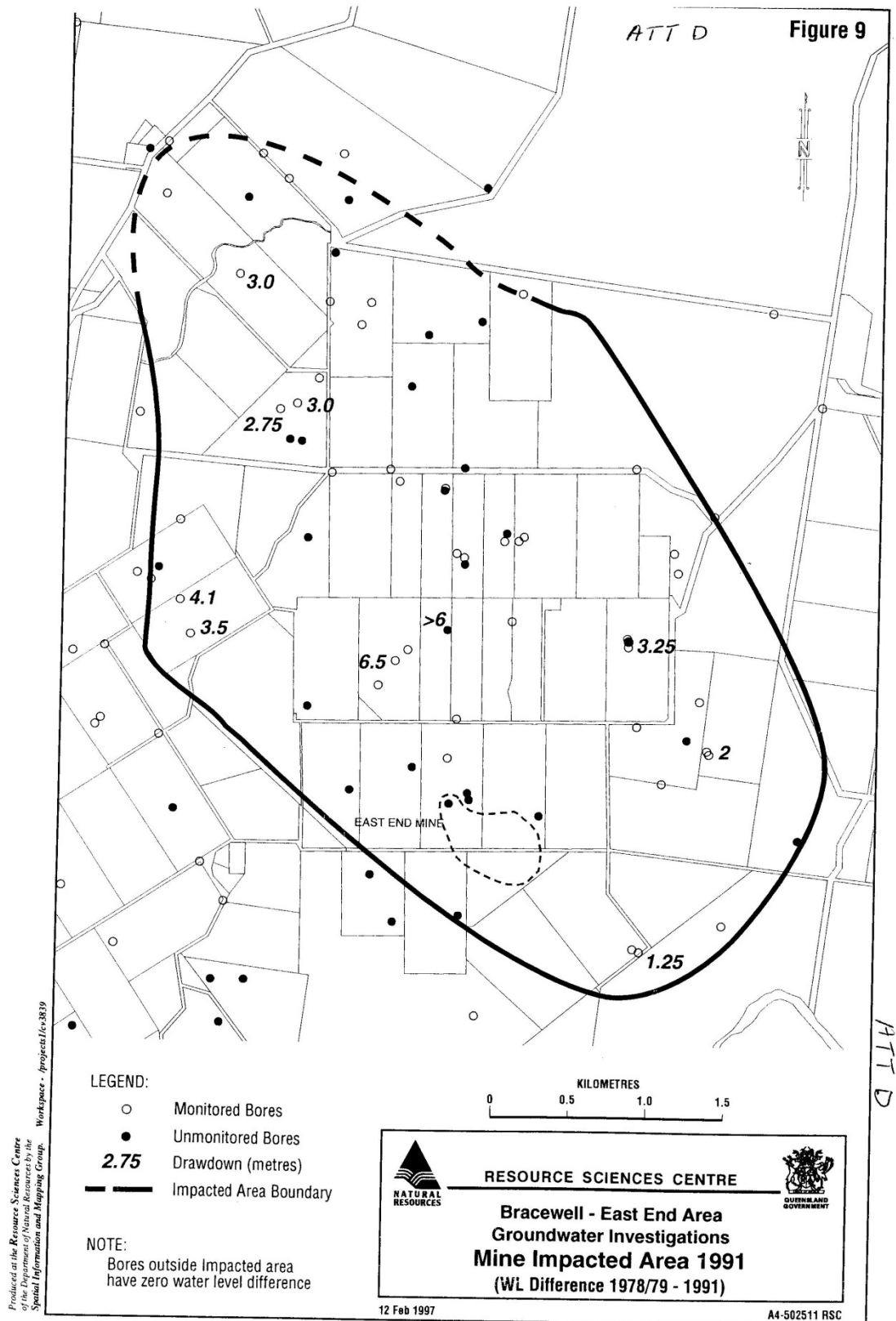
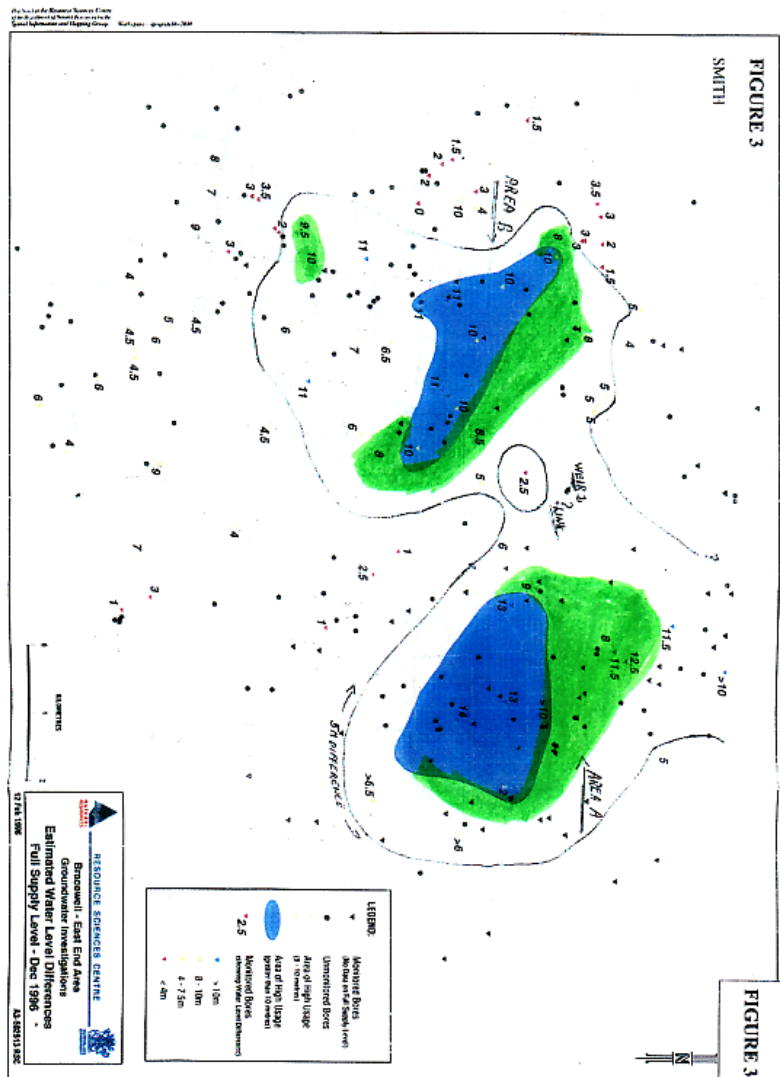


Figure 3 below reproduced from the Mt Larcom CRP Report (Smith October 2003)
Figure 3 is adapted from DNR's (1997/8) Figure 8



August 1998 Findings by Professor of University of Queensland for EEMAG

EEMAG's local knowledge and Dr James dissented with DNR's December 1997 Draft Position Paper's findings, since we considered DNR also understated the mine's impacts.

EEMAG immediately hired a highly regarded modelling consultant Professor from the University of Queensland. EEMAG signed a contract with the University for the study to be completed in advance of DNR's Final Position Paper due in February 1998 so DNR would have to take the Professor's views into account.

- There is evidence that, prior to the Professor completing his contractual undertaking, a Senior DNR Officer persuaded the Professor to delay his Report without informing EEMAG, the client, to the detriment of EEMAG's strategy for requiring DNR to consider the Professor's findings prior to finalising their Position Paper. (DNR's action is confirmed in "Industry/Community Relationships in Critical Industrial Developments" Hoppe (2005) on Page 9.51 by the author's interview with a government official.)

The negotiated delay enabled DNR Regulators to make a final ruling on findings in their 1997/98 Position Paper without having to take the Professor's August 1998 Report - or his support for Dr Peter James 1997 dissenting findings into account. (Doctoral Thesis, Industry/Community Relationships in Critical Industrial Developments
Website: <http://www4.gu.edu.au:8080/adt-root/uploads/approved/adt-QGU20060704.120839/public/03Main.pdf> - This website begins at Chapter 6, Refer Page 9.51.

The Professor verbally implied vulnerability to leverage related to University of Queensland's collaborative arrangement and dependence on DNR's funding and research opportunities.

- The 'Interim Conclusion' from the Professor's study of Aug. 1998, Quote:
 "On the basis of the available evidence, it cannot be concluded that there is no effect of mine dewatering on the Bracewell aquifer, for the following reasons.
 1. Some connectivity between the aquifers in the vicinity of Weir 2 appears likely as indicated by the permeable material exposed by the excavation in early 1998.
 2. In such a complicated aquifer system there is a distinct possibility of channels of relatively more permeable material linking the aquifers and acting as confined flow conduits."

September 1999: 'Groundwater flow modelling – a summary' of the second standard model by East End mine consultant

In 1999 the mine's modelling consultant abandoned an attempted recalibration of the first model that could not evolve and began work on an entirely new model. He produced "Groundwater flow modelling – a summary" (September 1999) and in 2000 provided a map of the "Mine Pit Zone of influence" (22/2/2000) showing an area of 33 square kilometres affected by dewatering. (*Copy 2000 Mine Pit Zone of Influence 33 sq km is included in the Map on Page 30 of this submission*)

- The September 1999 model found the Bracewell water loss identified by the water monitoring data was not caused by mine dewatering. However the three calibrations wells chosen for Bracewell were all unrepresentative of the limestone that the

consultant was purportedly modelling. Two of the calibrations sites were shallow alluvium wells (that fully recharged at intervals in isolation of the chronically depleted limestone) while the third site lay in the Jacob's Creek limestone that was more remote from the mine and therefore less affected than the Bracewell aquifer.

- The September 1999 model has also since been abandoned due to its failed forward projections and inability to evolve to the next generation.

May 2001: "Independent" Assessment of mine dewatering impacts under jurisdiction of the Environmental Protection Agency

Due to the ongoing dispute about Hydrology, in August 2000 the Minister for Environment and Natural Resources advised that attempts to conduct the proposed Open Technical Forum (a technical appraisal with all experts participating) had been abandoned and that Government would commission an independent assessment of the hydrological impact of the mine, with EEMAG invited to comment on the brief. The May 2001 "Independent" Technical Assessment by Associates as a consultant for the Environmental Protection Agency (EPA) endorsed findings by DNR's 1997/98 Position Paper (22 sq km mine depletion zone) and findings from East End mine's modelling Consultant's "Groundwater flow modelling – a summary" (September 1999) and (2000) Map of the (33 sq km Mine Pit Zone of Influence)

In EEMAG's view EPA's Independent Assessment Draft Report of May 2001 provided very limited acknowledgement of and attached little weight to evidence/ findings that dissented with Government/mine modelling findings.

Some key issues are;

- Dr James maintained the EPA consultant had not read and did not discuss Dr James' Hydrology work / Reports with him when the EPA Consultant visited as part of his required brief
- The EPA Consultant produced his study from EPA's Rockhampton office. His first Draft Report, March 2001, had a circulation of two copies (one for him and one for EPA) and the footer stated *"This draft has been prepared solely for the purposes of discussion with EPA and has not been subjected to Associates normal review process."* EEMAG considered the process flagged that EPA had a right of veto. (EEMAG learned of the Report unexpectedly and access to the report was facilitated through Hon Liz Cunningham who was to chair the proposed public presentation.)
- At an informal meeting between EPA, Hon Liz Cunningham, the EPA Consultant and EEMAG members on 18 May, EEMAG requested portions of the EPA Consultant's May 2001 draft report be re-written. The EPA Consultant agreed to produce an Addendum to his Draft Report
- In his Addendum Report of May 2001, the EPA Consultant quoted mine-pit discharges of 1.7 megalitres per day from a severely depleted aquifer as a reasonable estimate of discharges. (The mine's discharge license permitted a maximum of 6 megalitres per day in 2001.) We did not consider use of this selective quote after more than 21 years continuous mine discharges under seasonal variables (eg above average rainfall years 1988, 1989, 1990 leading up to and including 1991 floods) was appropriate when determining a conclusive finding, particularly when the historical run of mine pit discharges (which began in 1979) were not available.

- (Water Monitoring data for the mine's discharge to Weir 6 for December 2003 to March 2004 shows a discharge of 1,000 megalitres for 3 months – after a major February 2003 rainfall event.)

The EPA's Independent Consultant's work was reviewed in the Federally funded Mt Larcom Community Restoration Project Report (2003) which referenced most of the available Hydrology reports covering the dispute. Two only of a number of comments by leading Australian limestone hydrologist Dingle Smith in the Groundwater Resources Segment regarding the EPA Consultant's work, on Page 27, Introduction, state:

“Attention is drawn to the shortcomings in the Associates Reports prepared for the Environmental Protection Agency of the Queensland Government and especially to the lack of recognition that limestone aquifers have both slow and fast flow components. The former is amenable to the standard methods used for computer modelling of groundwater and the latter is not.” and Pages 38 and 39 Quote:

“Peter Brady (of EEMAG) undertook a survey of local irrigators around year 2000.

Brady reported the number of irrigators using groundwater bores in 1980, close to the time that pumping from the mine commenced, as 20½ (the '½'s indicate minor use). The corresponding number for 2002, from the survey, was 6½. The survey also provided estimates of the decreases in the area irrigated and in the volumes pumped for irrigation.

Both the estimates for area irrigated and volumes pumped for irrigation in the year 2000 were approximately one-third of pre-mine figures.

Brady also points out errors in the irrigation rate used in earlier water budgeting studies by[mine modelling consultant].

This matter was addressed by Associates in their addendum of May 2001 which briefly reviews Brady's initial data and comments:

‘it is certainly accepted that there has been a substantial reduction [in irrigation use] over the last 20 years’ [writer's underlining] (p.9, addendum May 2001).

The discussion of Brady's data [by EPA's Consultant] does not mention that the irrigation volumes and area in 2000 was a third of that in 1980. It is also clear that no attempt has been made to incorporate the revised, and much reduced irrigation, information into the groundwater modelling. Brady's data were again updated in December 2001 in the EEMAG publication *Hydrology, Hydrogeology and Trilogy* (2001) a copy of which was made available to Associates.

It is disappointing to see the response of Associates to this survey undertaken by Brady. Associates (p. 18, April, 2002) ignores the Brady's survey of irrigation use and again comments that;

‘...the lack of such information [irrigation use] has limited the effectiveness of model calibration in several areas and makes more difficult the task of separating out mine impacts from those attributable to drought’

Having agreed that ‘there is a substantial reduction in irrigation use’ in the May 2001 Addendum report this is discounted in the report of April 2002 which goes on to discuss the importance of plant transpiration from vegetation along Scrub Creek. Presumably this information had previously been incorporated into water balance studies and the model? If

not, it is further evidence of the very shoddy approach to providing an acceptable water balance model. It appears that having received information regarding irrigation use that this has been casually discarded.” End of quote from Mt Larcom CRP Report by Dingle Smith.

- Evidence (some obtained post 2001) shows the Senior EPA Officer who oversaw the 2001 “Independent” Technical Assessment administered a process that acted to defend Government/ Company findings, in keeping with the Government’s covert 1977 “minimum compliance” agreement for the East End mine, whilst pretending to EEMAG members that the process was bona fide.
- On 31 May 2001, EEMAG wrote to EPA out of concern for the EPA’s “Independent” Consultant’s use of 1.7 ML/Day discharges and sought access to QCL’s historical mine-pit discharge data. On 5 June 2001 EPA responded advising that QCL had no objection to making the mine pit discharge records available. (This data still have only been partly disclosed.) EPA’s letter stated, quote “In the addendum to his report, [EPA’s Consultant] has made it clear that he does not consider that the inclusion of this material in his report is necessary to the findings he has proposed. Such work would also be outside the terms of the brief given to the consultant.

Dingle Smith (2003) Mt Larcom CRP Report, under Water Use and Water Budgeting stated on Page 38, Quote:

“The lack of a useable run of mine pump data indicates a major flaw in the administration of the monitoring program and also renders any attempt to obtain a water balance presented in the various reports by Associates to be so incomplete as to be of no practical value.

Even to a non-technical reader of the voluminous reports on the mine it is apparent that the amount pumped out of the quarry is the single most significant feature to be addressed in discussing the impact of the mine of local surface and groundwater.”

Note: The dispute about the science has been ongoing but details of ongoing Reports and dissenting views have not been included.

FOI SHOWS IN 2001 EPA USED OUTDATED, DISCREDITED 1996 IAS HYDROLOGY REPORT FOR FRAMING EAST END MINE’S ENVIRONMENTAL APPROVALS FOR LEASE RENEWAL ALLEGEDLY IN CONFORMITY WITH THE MINE’S 1995 INCENTIVE PACKAGE AGREEMENT

An EPA Memorandum of 22 October 2001 (FOI) documents EPA’s decision, Quote from Page 1, under “1. First Application”

“2. EIS conducted in 1996 when cement plant upgraded. Information still valid.”

Page 2 under “3. ML80002 TA Amendment”

“CAC on 10 August 2001 decided the application for a non standard did not involve a significant increase in environmental harm (and that meant there was no need to consider whether an EIS was required).”

Note: The evidence shows that in this way EPA fixed East End mine’s 2002 EMOS and Amended Environmental Authority (used for lease renewal in 2003) on the allegedly false

and misleading 1996 IAS hydrology report. Their decisions set aside all reports (listed below) subsequent to the 1996 IAS Hydrology, and acted in conformity with the Company's 1995 request "Guaranteeing the status quo remains with regard to environmental licenses on current operations" – no recognition of off lease impacts.

List of Hydrology Reports set aside by EPA's October 2001 decision;

- East End Mine Modelling Consultant February 1997 Draft modelling findings of a approx 7.5 sq km of East End aquifer affected by mine dewatering
- Dr Peter James for East End Mine Community Liaison Group (July 1997) evaluated a mine impacted area with loss of up to 20 metres in groundwater levels over an area of approx 60 sq km in East End and Bracewell aquifers causing loss of perennial stream flow; (findings not accepted by Regulators/the mine)
- DNR (1997/98) Position Paper Figure 9 evaluated a mine impacted area of approx 20 sq km had occurred by 1991; this was extrapolated in Figure 10 to a mine impacted area of approx 22 sq km by 1997/8, DNR Figure 8 showed 2 zones suffering water loss 1 at East End and 1 upstream at Bracewell, but ruled only 22 sq km at East End was due to mine dewatering.
- University of Queensland Professor for EEMAG Inc August 1998 basically supported Dr Peter James July 1997 findings, Quote "On the basis of the available evidence, it cannot be concluded that there is no effect of mine dewatering on the Bracewell aquifer,....." (findings disregarded by regulators/the mine)
- East End Mine Modelling Consultant (February 2000) evaluated a 33 sq km Mine Pit Zone of Influence at East End
- EPA's Independent Consultant (May 2001) endorsed the mine modelling consultant's (2000) findings of 33 sq km mine impacted zone at East End.

EEMAG members wish to thank the Productivity Commission for the opportunity to participate in your study. All supporting documentation is available on request and much of it is available on EEMAG's website www.eemag.net

Yours sincerely,

Heather Lucke,
Assistant Secretary
East End Mine Action Group Inc (EEMAG)