



LOCK THE GATE ALLIANCE INC

C/- Wollombi General Store, Wollombi NSW 2325

Secretary: Sarah Moles

E-mail: secretary@lockthegate.org.au

Telephone: (07) 4666 6125

The Coordinator-General
C/- EIS Project Manager—Galilee Coal Project (Northern Export Facility)
Significant Projects Coordination
Department of Employment, Economic Development and Innovation
PO Box 15517
City East QLD 4002 Australia

By Email to GCP@cg.qld.gov.au

10th November 2011

Dear sir,

The Lock The Gate Alliance (LTGA) wishes to comment on the Waratah Coal / Galilee Coal Project Environmental Impact Statement.

LTGA represents more than 100 community groups and more than 2,500 individual supporters concerned by the rapid escalation of mining and coal seam gas developments and the impact these industries have on our land, water, environmentally sensitive areas and the health of people in nearby communities.

Availability of information

LTGA is deeply concerned at the lack of easy access to the EIS documents. Most volumes of the online EIS are extremely large files. Many people do not have high speed broadband internet connections, nor unlimited download capacity. There is no reason for such large documents unless it is expressly intended to hinder access to them. Furthermore, a member of LTGA requested the full EIS to be provided on CD or DVD. It took more than 2 weeks to arrive, severely curtailing the time in which to prepare this submission.

Furthermore, the format in which the documents have been made available does not allow the text to be copied. This makes it tedious and difficult to quote specific parts of the text in response to the EIS.

There is tangible and growing perception in the community that these are examples of deliberate measures designed to disempower individuals and limit the number of submissions to be considered.

Background

A brief history of Bimblebox Nature Refuge (BNR) is needed to understand why it is considered a significant ecological entity. In the early 1980s vast areas of Queensland's grazing lands were being cleared at an ever-increasing rate. In the year 2000 when very few uncleared properties remained, Glen Innes was purchased by several concerned families, with the assistance of about \$300 000 from the Federal Natural Reserve System program. A permit had been approved to clear more than half the property, so its purchase effectively secured it as vital remnant native bushland. In 2003, the Bimblebox Nature Refuge Agreement was signed with the state government to "permanently protect" the conservation values of Glen Innes. This perpetual Nature Refuge Agreement (category VI Protected Area under the IUCN classification system) covers the property's entire 7 912 ha. A minor portion of Glen Innes had been cleared at a previous time, so that 7 632 ha remains as *original* vegetation.

During the last five years, BNR has become host to a number of long-term research projects conducted by the CSIRO, DPI&F, Birds Australia, EPA and the Queensland Herbarium. It is also a test case for sustainable grazing, since the property is carefully managed with a small herd of beef cattle. Profits are returned for native habitat rehabilitation and conservation.

There is also around one hectare of Brigalow (*Acacia harpophylla*), in the north-eastern corner of BNR. Brigalow is listed as an endangered ecological community. Individual Brigalow trees are also scattered through some of the box woodlands on BNR. Unfortunately, there are very few stands of Brigalow remaining in the region. One nearby patch of Brigalow about one kilometre south of BNR, on the neighbouring property Lampton Meadows, is also in the immediate path of the proposed mine.¹

Biodiversity offsets

The EIS clearly states that the mine would have massive negative effects on Bimblebox Nature Refuge. The ecological integrity of Bimblebox would be destroyed, with 52% of the property excavated for an open-cut mine and the remainder subject to long-wall underground mining (p.35). The open-cut mine would involve the destruction of 3,926 hectares of remnant native vegetation (p.35) to create an open pit. The existing habitats could never be rehabilitated.

The EIS claims that '*the project will not be viable without coal reserves under the BNR*' (p.20). In other words, either the mine goes ahead or Bimblebox Nature Refuge remains intact. LTGA believes that there are a number of reasons why it is vital that Bimblebox remains intact.

Significant agricultural, research and educational values:

¹ http://bimblebox.org/wp-content/uploads/2010/10/Referral_2009-4737_webversion.pdf accessed 17 October 2011

The owners and managers of Bimblebox are committed in their daily work practices and management decisions to conservation outcomes. They also actively host a number of leading research projects. Noteworthy are the fire experiments being conducted by the Queensland Herbarium, which will provide much-needed empirical data on the use of fire as a land management tool for graziers across the Desert Uplands. The significant management and research activities on Bimblebox Nature Refuge are extremely unlikely to be repeated elsewhere in the region, and would be a major loss on top of the loss of the conservation values of the property itself.

Significant conservation values:

The Bimblebox property was bought specifically with the aim of saving it from being cleared. It is managed for its rich biodiversity values and to provide a working example of integrated production and conservation. The Federal National Reserve System program contributed around \$300 000 for its purchase and it is covered by a 'perpetual' conservation agreement with the State Government.

Birds Australia has confirmed the sighting by one of its members of a flock of 'endangered' Black-throated Finch (BTF) on Bimblebox Nature Refuge in May 2011. The vulnerable Squatter Pigeon has also been sighted on Bimblebox, and there is a relative abundance of the near-threatened Black-chinned Honeyeater and Large Podded Tick-trefoil. There have also been fifteen EPBC-listed marine or migratory bird species recorded at the refuge, plus one migratory butterfly species, and fourteen bird, mammal and reptile species of conservation significance for the Desert Uplands, including koalas.

Bimblebox Nature Refuge provides crucial habitat in a landscape otherwise dominated by cleared grazing land. As well as endangered species, Bimblebox is renowned for its abundance of flora, bird and reptile species more generally. The total bird species count stands at 138. The refuge is in a strong position to ensure that a range of species do not end up on the threatened and endangered lists. Given the number and extent of major coal projects proposed for the vicinity, it is likely that Bimblebox will become an even more important refuge habitat in the future. In fact, it is the prospect of huge coal mines nearby, particularly HPPL's Alpha project, that makes the on-going viability of Bimblebox Nature Refuge even more essential.

Dangerous precedent for the destruction of protected areas:

If the Waratah Coal mine is allowed to proceed, it would be the first time that a Queensland property covered by a perpetual Nature Refuge Agreement was destroyed for mineral extraction. Approval for the mine's development would clearly contravene the 'perpetual' conservation agreement signed with the Queensland government. By signing the Nature Refuge Agreement, the Bimblebox landholders also agreed to become part of the National Reserve System and so agreed to a set of standards recommended by the International Union for the Conservation of Nature (IUCN). In stark contrast to the Waratah Coal plans outlined in the EIS, the IUCN recommends that no more than 25% of a protected area may be 'managed for other purposes' and only when 'these are compatible with the primary objective of the protected area'.² The Waratah Coal proposal is absolutely inconsistent with the IUCN recommendations.

² IUCN, 2008, Guidelines for Applying Protected Area Management Categories, P35, <http://data.iucn.org/dbtw-wpd/edocs/PAPS-016.pdf>

As stated in the EIS Volume 2 Chapter 6, the land to be subjected to underground mining is likely to suffer substantial subsidence 'expected to range between 1.3-1.6 m' and thus interfere with the natural hydrology that supports the overlying ecology. It is the view of LTGA and our many members and supporters that such impacts, whether they are on other water users or the wider natural environment, are unacceptable.

The inadequacy of proposed offsets:

Waratah Coal proposes that the 'unavoidable' negative impacts from their mine on Bimblebox Nature Refuge could be compensated for by 'offsets' (p.208). Waratah Coal has proposed to 'offset' both the open-cut and underground mining area. However, offsetting would be an entirely inadequate approach to 'compensation' for the loss of Bimblebox Nature Refuge, for a number of compelling reasons.

- 1. Offsetting would result in a net loss of biodiversity for the region and state.** Since the Vegetation Management Act (1999) put an end to broad-scale land-clearing in Queensland, remnant vegetation is now protected under Queensland law (although mining companies are exempt from the effect of the Act). This means that by simply 'securing' an area in an offset deal, neither Waratah nor the State Government would be likely to deliver any more protection than already exists.
- 2. There is nothing to stop offset areas being mined in the future.** It is claimed in the EIS that 'offset sites could be secured through Nature Refuge conservation agreements or other legally binding mechanisms' (Appendix 27, p.29). However, any offset area could be mined in the future. just as Bimblebox faces this threat now. This is quite likely given the explosion of coal exploration permits granted in the Desert Uplands bioregion in recent years.
- 3. The commitment of the Bimblebox landholders and managers is unlikely to be matched elsewhere.** Just as important as the natural conservation values of Bimblebox is the ongoing commitment by the owners and care-takers to manage it sustainably by giving priority to biodiversity. This is manifest in their painstaking eye for detail and receptiveness to hosting research projects and volunteers, all with an aim of improving land management in the Desert Uplands. There is no similar enterprise anywhere in central-western Queensland and these efforts are very unlikely to be repeated elsewhere in the bioregion.
- 4. Lack of evidence.** Waratah Coal has not demonstrated in the EIS that appropriate offset areas exist in the vicinity of Bimblebox Nature Refuge. Appendix 27 describes a desktop study that was made to locate areas of 'remnant vegetation of the dominant [Regional Ecosystems] found within the [Bimblebox Nature Refuge]' (Appendix 27, p.31). However, without thorough ground-truthing, there is no way of knowing the understory component species, the condition of the habitat, or the willingness of the existing landholders to manage for biodiversity values in the way that Bimblebox is currently managed. When all these aspects are considered, it is very unlikely that appropriate offset areas exist. If regrowth areas are to be targeted for protection, it should be noted the current discussion in the academic literature on this matter is cautious and sceptical, such that:

Accrued biodiversity values should be demonstrated before they can be used to

*offset biodiversity losses.*³

5. **Indirect offsets' are no replacement for habitat.** Waratah Coal may attempt to absolve itself of responsibility for destroying Bimblebox and failing to find suitable offset areas, by payments for so-called 'indirect offsets' in the form of plans and programs etc. This proposition was mentioned in their EIS in regards to the likely impact on Black-throated Finch habitat (Appendix 27, p.30). However, this endangered bird, along with every other inhabitant species of Bimblebox, requires undisturbed habitat more than anything else. Indirect offsets would amount to a significant and scandalous loss of biodiversity.

6. **Offsetting remains a controversial and uncertain option for protected areas.** As stated in the Waratah Coal EIS, '*no specific offset policy is currently in place for protected areas*' (Appendix 27, p.15). This reflects the fact that both the State and Federal governments are yet to determine how the destruction of protected areas could be appropriately compensated for, if at all. Since there has been no adequate or conclusive public discussion of this matter, it would be highly inappropriate to proceed with any action causing significant negative impact on a protected area, including Bimblebox Nature Refuge.

LTGA rejects the notion that "unavoidable impacts" (ie the loss of significant habitats and threats to species) can be compensated in a bioregion that has been substantially cleared. The quality of vegetation elsewhere in the Desert Uplands will not provide 'ecological equivalence' with the values that make BNR of such outstanding significance.

Water resources

The EIS states that "[t]he construction and operation of the mine has the potential to have a significant impact on waterways in the region" (p 42 Executive Summary) and "... a low potential for negative impacts on the GAB groundwater resources ..." (p 43)

For a semi-arid region such as the Desert Uplands, water is the limiting factor for enterprises of all types. It should be noted that the sandy soils of the south-eastern Desert Uplands are unsuited to the construction of dams for stock or domestic use.

Appendix 15 (surface water) does not discuss the potential impacts of the mine on existing users of surface water resources. Appendix 14 (groundwater) states that "[t]he model suggests the mine will impact on groundwater users within 12 to 30km of the mine from drawdown" (ES 2 and Appendix 14, p8-1)) and acknowledges the potential for groundwater contamination to occur.

LTGA understands that the recharge zone of the GAB is in the vicinity of this project. Connectivity between GAB aquifers and other groundwater flow systems is poorly understood. Under the circumstances, blasting of aquifers for the construction of the railway line poses unacceptable and potentially irreversible risks.

LTGA believes 'make good' provisions are inadequate and that it would be impractical to 'make good' permanent damage in perpetuity. In our view it is ecologically and

³ Bekessy et al. (2010) 'The Biodiversity bank cannot be a lending bank', *Conservation Letters*, 3, 151-158.

economically more efficient to refrain from causing such damage. Prevention of damage to natural infrastructure is always cheaper than 'cure'.

Protection of Australia's scarce and irreplaceable water supplies is one of LTGA's aims, one which strikes a chord with growing numbers of Australians who increasingly find it unacceptable to knowingly detrimentally impact on this most essential of resources, especially when the consequences are not clearly understood. This applies equally to water availability (especially in arid and semi-arid landscapes) and to water quality.

Climate change

The Waratah Coal project will export 40Mtpa of coal per year along with 96 million tonnes of CO₂ per year. Over the life of the mine, the 1.4 billion tonnes of coal to be produced by Waratah Coal would result in the emission of 3.78 billion tonnes of CO₂-e. While scope 1 and 2 CO₂-e emissions have been estimated for Waratah Coal's proposal (see Appendix 19, summarised on p.xii), over the life of the mine these amount to only 6% of the mine's atmospheric impact, if the end-use emissions were also taken into account (as part of a scope 3 assessment).

With evidence of climate change becoming more apparent every year, it is negligent of the Queensland and Federal governments not to require a full life-cycle assessment of such a major fossil fuel project. This badly fails public expectations on the issue of climate change.

LTGA believes that a full life cycle assessment of greenhouse gas emissions involved in the entire project should be undertaken.

Cumulative Greenhouse Impacts

The U S Department of Energy has calculated that greenhouse gas emissions for 2010 "are higher than the worst-case scenario outlined by climate experts four years ago."⁴ The increase of some 512 million tonnes CO₂ is 6% higher than 2009 emissions.

While developed countries that have signed the Kyoto Protocol have reduced their emissions, those of developing economies are increasing. Dr Andrew Weaver, a climate scientist at Victoria University, Canada described the problem as "pretty close from running away from us."⁵

It is of grave concern that Queensland continues to plans to expand its coal industry and to export CO₂ emissions to the developing world. Not only does this fly in the face of Commonwealth and Queensland government policy, it utterly fails to recognise the link between increased CO₂ levels and extreme weather events such as those that devastated large parts of the state. The 2011 Queensland floods are estimate to have cost as much as \$30 billion.⁶

⁴ <http://www.theage.com.au/environment/climate-change/greenhouse-emissions-exceed-worst-case-scenario-20111104-1mzzh.html>

⁵ <http://www.theage.com.au/environment/climate-change/greenhouse-emissions-exceed-worst-case-scenario-20111104-1mzzh.html>

⁶ <http://www.news.com.au/business/counting-cost-of-queensland-floods/story-e6frfm1i-1225988393452>

1. Queensland is the [largest coal exporting state in the largest coal exporting country](#) in the world.
2. In 2009, the state's 52 coal mines produced a record [195 million tonnes of coal](#).
3. [85% of Queensland's coal production is exported](#), which means that the greenhouse gas emissions from this coal are not counted as Australian emissions.
4. The emissions generated by burning Queensland's coal globally produces more than [2.3 times the combined domestic emissions for the entire state](#), including power generation, transport, agriculture and industry.
5. Expansion plans for Queensland coal exports will emit an additional 460 million tonnes of CO2 into the atmosphere per year – equivalent to the annual emissions of [65 average coal-fired power stations](#).
6. These expansion plans for Queensland coal will increase greenhouse gas emissions roughly equivalent to the [total carbon dioxide emissions of Italy each year](#).⁷

"In 2009 the German Advisory Council on Climate Change (WBGU) determined that for a 75% chance of avoiding a 2 degree C temperature rise, the world must pollute less than 600 Gt CO2 between 2010 and essentially zero emissions in 2050 [...] Australia has already exceeded its "fair share" of permissible global GHG pollution before science-demanded zero emissions in 2050."⁸

Waratah Coal's proposal for a coal mine in the Galilee Basin is only one of a number of massive new fossil fuel developments in the region. The projected output of the new mines would nearly double Queensland's total coal production. The scale of such development in such a short time frame is unprecedented in Queensland, and as such the full extent of the likely impacts on communities and the environment is largely unknown.

It is crucial that an independent regional assessment be undertaken. This task should not be left to each mining company in the course of the EIS process. Rather, experts working in conjunction with local people need to thoroughly assess what the cumulative impacts are likely to be on surface and ground water resources, flora and fauna, and community well-being. The time frame for analysis should be at least 50 years, to take account of post-mining-boom scenarios. A regional impact study should also seriously examine the alternatives to the development of the Galilee Basin as a coal province, and determine the costs to non-coal industries.

LTGA contends that the Galilee Coal Project should be cancelled in favour of investment in renewable energy solutions, including for export.

A full cost benefit analysis, including the costs of extreme weather events is required to

⁷Statistics in the 6 dot points sourced from <http://www.sixdegrees.org.au/> accessed 5/11/11

⁸Polya, G., [Shocking analysis by country of years left to zero emissions](http://www.green-blog.org/2011/08/01/shocking-analysis-by-country-of-years-left-to-zero-emissions/) sourced at <http://www.green-blog.org/2011/08/01/shocking-analysis-by-country-of-years-left-to-zero-emissions/> Accessed 24th October 2011

fully understand the cumulative impacts, costs and benefits of projects such as the Galilee Coal project.

Appendix 23 Social impact assessment

LTGA notes that the SIA does not give adequate consideration to the impacts of coal dust on human health.

The health and climate costs of coal are unseen, and when costs to health systems are included, coal is an expensive fuel – some 5 times the value of the coal mined.⁹

Evidence from the United States indicates that coalmining communities in West Virginia had an increased risk for developing cardiopulmonary disease, chronic obstructive pulmonary disease (COPD), hypertension, other lung diseases and kidney disease.

Mortality rates for these diseases were higher in coalmining areas compared with non-mining areas of the region. Potentially confounding risk factors, such as smoking rates, were not reported. Coal-processing chemicals, fumes from diesel powered equipment, explosives, toxic impurities in coal *and dust from uncovered coal trucks* could all have affected the health of respondents. Communities in which coalmining or burning occurs have been shown to suffer significant health impacts.¹⁰

A full cost-benefit analysis of the impacts of coal mining, washing, loading and unloading, and transport (particularly in uncovered coal trains) on human health should be undertaken.

With regard to other aspects of the Waratah Coal project:

- The 500km rail will break up habitats, and deliver weeds and coal dust en route.
- The water pipeline will disturb the Epping Forest National Park, the only remaining habitat for the Northern Hairy Nosed Wombat.
- The coal stockyards, 2.5 km long, could leach dangerous pollutants into the adjacent Abbot Point Caley Valley Wetland.
- The expanded Point Abbot Port near Townsville, will put further stress on the Great Barrier Reef.
- The proposed mine will be one of several in the Great Artesian Basin recharge zone.

⁹ Hendryx, M., *Summary of research on the economics of coal* sourced at <http://coalcountry.wordpress.com/2010/04/15/summary-of-research-on-the-economics-of-coal-dr-michael-hendryx/> 24 October 2011

¹⁰ Castleden, W.M., Shearman, D., Crisp, G., & Finch, P *The mining and burning of coal: effects on health and the environment* -. Medical Journal of Australia, 195 (6) 19 September 2011.

Each phase of coal's lifecycle (mining, disposal of contaminated water and tailings, transportation, washing, combustion, and disposing of post-combustion wastes) produces pollutants that affect the environment and human health.

LTGA advocates that the full economic costs of these environmental impacts be determined.

Conclusion

From start to finish, Waratah Coal's proposed development will wreck havoc on the environment and jeopardise the potential of developing sustainable industries that will endure well beyond the '*quarry Australis*' mentality that underpins the resources boom.

LTGA contends that the Galilee Coal Project should be cancelled in favour of investment in renewable energy solutions.

Renewable energy technologies are sufficiently mature to provide base-load power. If the economic playing field is levelled by the removal of subsidies to the coal industry and the principles of full cost accounting and full life-cycle analysis applied to externalities, renewable energy solutions would be the most economically efficient way forward.

The manufacture and construction of renewable energy products and systems does not require the destruction of essential habitats, threaten the long-term viability of critical water resources, human health or increase the magnitude of our climate challenge.

Renewable energy systems create more job opportunities than capital intensive mining and infrastructure projects.

Renewable energy systems can be exported to the rapidly developing nations of the Asia-Pacific region and offer the opportunity for those countries to avoid decades of reliance on polluting, high intensity greenhouse gas emissions.

Yours sincerely,



Sarah Moles,

Secretary,
Lock The Gate Alliance Inc.