

# **The Felton Valley is no place for coal mining development**

**A submission to the Senate Inquiry into the Impact of Mining in the Murray Darling Basin**

**Submitted by Friends of Felton Inc**

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## **Background**

The Darling Downs is one of Australia's greatest natural assets; its famous basalt and alluvial soils and reliable climate have fed this nation for generations. But under the land surface there are large coal deposits that have come to the attention of mining companies. Since early 2008, the Darling Downs has become the front line in massive conflict between farming and mining.

Coal is abundant in Queensland, from the Darling Downs west past Wandoan and north to the Central Highlands. Queensland's Premier Anna Bligh said recently that there was enough coal in Queensland to last 300 years.

One of the companies at the forefront of this conflict is Ambre Energy, an unlisted public company, based in Brisbane, with an office in Salt Lake City, Utah, USA. The so-called Felton Clean Coal Demonstration Project (hereafter referred to as the Felton Coal Project) is a staged development proposal being advocated by Ambre Energy Ltd for a site in the Felton Valley (*Appendix 1*).

Ambre Energy has applied to the Queensland Government for a Mining Lease and are currently conducting an Environmental Impact Study, which they expect to complete early in 2010.

The Felton Coal Project proposes to commence with an initial 'demonstration' project on 355ha, which includes an open-cut coal mine and a pilot petrochemical plant to produce di-methyl ether (DME), a diesel substitute fuel. The Stage 1 proposal involves extraction of 800,000 tonnes of coal per annum, with expansion under stage 2 to 3.8 million tonnes per annum.

If the project proceeds to full scale as planned, it would cover an area of some 2,800ha, and extract 12.8 million tonnes of coal per annum, making it about as large as any coal mine currently operating Queensland. The planned size of the mine is a major concern

for Felton residents as it infers environmental, social and infrastructure impacts of a proportionate magnitude.

Friends of Felton Inc is a community group with around 100 members, and a large ever-expanding network of supporters throughout the country. We are implacably opposed to coal mining development at Felton, and wherever it poses an unacceptable threat to prime farmland, the environment, or local communities.

### **Affected communities and production**

For a rural area, Felton is closely settled so many people would find themselves adversely affected by mining related externalities, at and around the site. Research carried out by the community group Friends of Felton indicates some 700 people live within 10km of the proposed mine site. The thriving town of Pittsworth, population 2,500, lies on the western edge of this 10km radius and Cambooya, population 700, lies some 12km to the northeast (*Appendix 2*).

**Felton is too closely settled to accommodate a large coal mine. In practical terms this means that the people who would be bought out to establish the mine are greatly outnumbered by those who would become neighbours to the mine and then suffer all the ill effects of mining activity without compensation or any offsetting benefit of consequence.**

The affected area currently supports a sustainable agricultural system comprising fertile soils, an uncontaminated and reliable water supply, specialised capital, technical know-how, a fascinating cultural history and strong social networks. Ambre Energy would sacrifice this system, with its capacity to provide food and bio-mass in perpetuity, for a high-emissions coal mine that will last for less than 50 years and compromise any return to productive agriculture post-mining.

The Felton Valley consists of black soil alluvial plains rising to low slopes of Walloon sandstone and to higher, steeper basalt ridges. The main primary industries are broadacre cropping (summer and winter), horticulture, egg production, dairying and beef cattle. It is a closely settled area with relatively small, yet productive acreages. Friends of Felton Inc recently conducted a survey of properties within a 10km radius of the proposed mine site. In summary it uncovered the following statistics:

- 185 households had 700 occupants
- 55% of these relied on farm income as their primary income source
- the properties are highly dependent on underground water for household, stock

and irrigation water

- 2007 -2008 agricultural production was:
  - 23,755 tonnes summer crops
  - 7,450 tonnes winter crops
  - 3,350 tonnes hay
  - 3,700 tonnes silage
  - 4 million lettuce heads
  - 320 tonnes onions
  - 150 tonnes organic mixed vegetables
  - 4.3 million litres milk
  - 18,280 tonnes beef
  - 1,540 tonnes pork
  - 0.2 tonnes wool
  - 10 tonnes honey
  - 1,300 horses in horse breeding enterprises.

Further, significant horticultural production is carried out to the north east of Felton. Eight horticultural enterprises situated between Felton and Toowoomba produce 750,000 lettuces, 65,000 cauliflowers, 60,000 bunches of celery, 18,000 cabbages EVERY WEEK and 2,000 tonnes of onions and 500 tonnes of potatoes per annum. These eight growers have a gross annual value of production of over \$23 million and employ 400 people.

All of the irrigation water required for these farms is sourced from shallow underground aquifers.

The Felton-Toowoomba horticultural industry is a vital part of this nation's food supply and produces salad crops and vegetables for distribution right along the east coast of Australia. It is managed efficiently and sustainably and is capable of producing food for this nation indefinitely. However, coal mining development at Felton would place this entire industry in jeopardy. The prevailing south-westerly winds would blow coal dust from a Felton mine, and pollution from a Felton petrochemical plant, right across this area. Who would eat a lettuce covered in coal dust and laced with pollution? In all likelihood, a coal mine at Felton would intersect and drain underground aquifers that run west from the Great Dividing Range around Toowoomba, and supply the horticultural industry. These aquifers are the lifeblood of this region. If they run dry, then this vital food production system dies with them. The loss of 400 jobs would be a body-blow to the region and many more jobs would be lost from the supply chain which delivers this food to the customer. There is no way that coal mining could deliver a net gain in jobs to the Felton area or Queensland.

The egg production industry in the Felton-Pittsworth district is of national significance,

with some 750,000 laying hens producing eggs for Australian households and providing hundreds of jobs.

### **Threat to water supplies**

Ambre Energy state that Stages 1&2 of the Felton Coal Project would require between 1,000 and 2,000 ML per annum of water. Since there is very little local water the project could acquire, it would have to 'import' its needs from waste water sources, located up to 100 km from the nominated site. Ambre Energy's Initial Advice Statement refers to piping coal seam methane water from the Dalby gas fields. This water is known to be salty and contaminated with other minerals so would have to be treated to tertiary standard prior to use as the proposed mine site is adjacent to Hodgson Creek, 15km from its confluence with the Condamine River, in the headwaters of the Murray Darling.

The proponent plans to build a 30m high levee bank on the western side of the Hodgson Creek to protect the mine and infrastructure from flooding and to collect run-off water for use by the Felton Coal Project. It also plans to build a large water storage dam. The building of these structures, which are already forbidden for agricultural purposes, is likely to disrupt the hydrology of the local catchment leading to greatly increased flooding upstream of the project site.

Recent flooding of mine sites in Central Queensland highlighted the risk of contaminated water escaping into river systems. In January 2008, a number of flooded mine sites were permitted by the Queensland Government EPA to pump polluted water into the Fitzroy River System. Downstream water quality was badly affected by heavy metal and salt contamination, which caused major problems for graziers and local communities. The Queensland Government acknowledged this and apologised to the city of Rockhampton for the impact on drinking water quality.

In February this year a number of mine sites were flooded in North West Queensland, with subsequent pollution turning affected rivers blue for hundreds of kilometres, poisoning fish and rendering the water dangerous to livestock.

**The risk of similar events happening at Felton, situated at the headwaters of the Murray Darling Basin, should be avoided by denying mining the right to enter the Felton Valley.**

Felton farms are highly dependent on underground water for stock and domestic supplies and for irrigation. There are 586 registered water bores within a 12km radius of the proposed mine site (*Appendix 2*). Recent research by CSIRO and Queensland Government Department of Natural Resources using radioactive isotope markers has

shown a high degree of inter-connectivity between groundwater and surface water in the Hodgson Creek Catchment. The mining industry is a heavy user of water in its extraction and processing stages. Drought and overuse have left many of Australia's river and underground reserves severely depleted. Thus the risk of water contamination and drawdown are real and significant threats.

## **Rehabilitation**

Ambre Energy claim they can rehabilitate the land after mining to 'as good if not better condition' than its pre-mined state.

Friends of Felton does not believe that this will be possible with the soil types at Felton. This is a deep alluvial self-mulching black soil, which has been laid down in layers over thousands of years. The structure is critical to its production, and soil testing has shown that there is significant variation in nutrient availability at different depths in the topsoil, which itself can be over 1 metre deep. Removing the topsoil and stockpiling it for rehabilitation involves an unacceptable mixing of the different soil levels. Every 15cm of depth has significant differences in soil texture, structure and/or fertility.

Furthermore, Ambre Energy plan to dump the waste from their petrochemical plant into the mine pit before covering it with the stockpiled topsoil. There would be a considerable quantity of this waste, given that analysis of the coal by the company reveals an ash content of at least 35%.

Friends of Felton is convinced that rehabilitated mined land will be incapable of agricultural production to anywhere near the levels currently achieved.

## **CO<sub>2</sub> Emissions**

Ambre Energy claim that DME has only one downside of note, which is that it still generates CO<sub>2</sub> when combusted in a motor. In fact it has another downside in the form of massive pollution of the site at which the DME is actually produced – in this case the Felton Valley. Ambre Energy's own figures show the petrochemical plant alone would produce 3t CO<sub>2</sub> per tonne of fuel (*Appendix 3*). At full production, the petrochemical plant alone would produce 8million tpa CO<sub>2</sub>. Once mining operations and fuel use are taken into account, total emissions would be approximately 16.5million tpa CO<sub>2</sub> (Machanick, 2009). Ambre Energy have no firm plans for Carbon Capture & Storage (CCS), and speak only of the 'possibility of trials'. Our information is that the prospects for CCS are less than remote before 2030. In any event, there are existing power stations better positioned to trial carbon sequestration and there are Cooperation

Research Centres already working on all sorts of coal pollution mitigation. There is no obvious need for a coal mine at Felton to be demonstrating cutting edge technology – if indeed there are any prospects.

Friends of Felton is well aware of the impact of Climate Change on agriculture and the environment. Scientists warn that without rapid global action to reduce carbon emissions, we can expect more frequent and severe droughts, and more extreme weather events.

Approval of the Felton Coal Project would result in a significant increase in this country's carbon footprint at a time when our efforts as a nation should be concentrated in the opposite direction.

### **Native species and amenity values**

The Felton Coal Project would place at risk populations of a number of nationally and state-listed endangered native species and remnants of listed ecological communities either known to be or likely to be present in the Felton Valley. These include two 'Endangered' ecosystems, three 'Endangered' species and six 'Vulnerable' species which are listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, and a further 22 locally-occurring species listed under the Queensland *Nature Conservation Act 1992* as rare and threatened (*Appendix 4*). These include the endangered Grassland Earless Dragon, a lizard which was thought to be locally extinct until recently re-discovered near Mount Tyson. There was a confirmed sighting of the Grassland Earless Dragon at Felton this year.

The Felton Valley is currently distinguished by its unity, space, beauty, cleanliness and tranquillity (*Appendix 5*). These qualities are part of our cultural heritage and the reputation of the Darling Downs.

The Darling Downs was one of the early settled areas of Queensland and as such several of the Felton families are 5<sup>th</sup> or 6<sup>th</sup> generation. Rudd's Pub (from Steele Rudd fame) is located in the vicinity adding to the heritage value of the area.

At times in the past, these values have been blithely dismissed in the name of progress. While communities have been struggling for years to express their wish that these and other natural values be preserved, our decision makers have been slow to 'read the signs' and to consciously pursue alternatives for satisfying the material necessities of life.

## **Macro economics**

Rapid growth in the economies of China and India, and the subsequent increase in commodity prices in recent years, has created an enduring mining boom in Australia. Many projects that were previously unviable have suddenly become viable. Australia, with its vast reserves, is in the box seat to capitalise on this opportunity. It is critical, however, that Australia does not become the world's quarry to be dug up haphazardly without due consideration for future generations and communities directly affected. Free market forces will do nothing to stop the stampede by miners wanting to access new ore bodies.

**It is clearly the responsibility of government to determine where mining can occur (because it is appropriate and socially acceptable) and where it should not occur (because the cost it would inflict on the local community is too great). It is the first responsibility of governments to recognise and correct market failure. When this does not happen, governance itself must be deemed to have failed.**

The continued loss of prime agricultural land is threatening the sustainability of export income from agriculture as well as the ability for Australia to feed itself. There is an international expectation that Australia will continue contributing to the world's food needs. As a global citizen, it is more important that Australia help to feed the world's population than it is to foster global warming by exporting fossil fuels.

This shrinking area of prime agricultural land should be protected from development, whether this occurs by urbanisation or mining. Until recently, the greatest threat to prime agricultural land has been from encroachment by property developers operating in close proximity to towns and cities. The threat posed by mining has gradually increased as the industry spreads from marginal land in sparsely populated areas onto increasingly better quality land where it impacts on many more people.

**Mining industry advocates often claim that their activities impose a small footprint. But the combination of very poor reclamation at exhausted mine sites and continued expansion – particularly into prime agricultural areas – is making the cumulative footprint of mining substantial to the extent that it is starting to threaten the nation's food production capabilities. This truth makes it imperative to confine future mining activity to non-agricultural areas.**

Mining and agriculture combined make up the bulk of Australia's export income and have coexisted in relative harmony until recently. Traditionally, the mining industry was confined to remote and undeveloped areas and thereby posed little threat to agriculture. But now the mining industry is seeking to develop deposits on farmland that is either considered prime or is of national or state importance or is considered unique.

With the potential impacts of climate change, the need to protect the best agricultural areas in Australia for the future is also enhanced. Agriculture is a sustainable industry and will provide Australia with export income for generations to come – well beyond the lifetime of any mining project. Both future land use and water use issues have national importance from a food security and production point of view and to maintain sustainable export income in perpetuity.

Moratoriums on irrigation development, reduced irrigation allocations, tree clearing restrictions, etc are facts of life for farmers these days. But state governments are inclined to give preferential treatment (or exclusion from existing regulations) to mining developments. This bias can only be explained in terms of the mining royalties that state governments are able to extract from mineral production.

**The implications of the decision on the Felton Mining Lease Application will be of national significance. It will act as a test case for the definition of farmland worthy of protection from mining development.**

No Mining Lease Application has ever been rejected on the basis of its impact on prime agricultural land. Refusal of the Felton Mining Lease Application would set a precedent which would afford protection to other threatened prime agricultural areas such as the Haystack and Jimbour plains on the Darling Downs and Caroonia on the Liverpool Plains. This will assist all levels of government with their development planning processes. It will enable businesses from all industry sectors to determine whether their proposed development fits within the overall planning requirements in a specific location.

As a result of more streamlined planning processes, unnecessary delays, development costs and potential legal conflicts would be reduced. This would have specific relevance to mining and agricultural industries, but also for property development. The proposed Felton Coal Project is the furthest advanced of several coal mining projects planned for the Darling Downs and other areas of Australia.

Ambre Energy have identified significant coal deposits at Back Plains, near Clifton while Newmont Pacific Energy holds a Mineral Development Licence (MDL) over some 13,000ha at Felton. In addition, Tarong Energy holds an MDL over the Haystack Plain near Warra; New Hope Corporation has highlighted the potential of deposits near Pittsworth, Wyreema, Mount Russell, and Jimbour and Coalworks Ltd are conducting feasibility studies for a mine at Hodgson Vale. Finally, the Liverpool Plains in NSW is threatened by a number of mining companies.

**It would be hard to imagine a proposal that threatens to inflict greater agricultural, environmental and social impacts than the Felton Coal Project. If this Project is**

**allowed to proceed, further large scale mining development across the Darling Downs and other areas of Australia will surely follow, as they will look highly acceptable by comparison.**

Current and future generations of Australians depend on the Queensland Government's refusal of Ambre Energy's Mining Lease Application to put long term food security and environmental protection ahead of a "quick buck". Although EISs have traditionally been used to identify and design mitigation strategies that effectively 'manage' adverse social and environmental impacts (thus allowing the proposal to proceed to project status) it is within the power and prerogative of the Queensland Government to refuse Ambre Energy the Environmental Authority they would need before operations could commence.

Prime agricultural land makes up a very small proportion of Australia's surface. The rivers, creeks, and underground aquifers that feed this land are priceless national assets. Properly managed, this land can produce food for the nation, and for export, for thousands of years. Mining this land in pursuit of royalties for cash-strapped governments would be short-sighted in the extreme and leave future generations of Australians to ponder the selfishness of such actions.

### **Concluding comment**

This submission has made it obvious that mining should not be permitted by law to establish in the Felton Valley on the Darling Downs of Queensland. Despite this the State Government has not yet put in place whole-of-state land use planning provisions that indicate where and **where not** mining exploration and development is allowed. Friends of Felton request that the Senate Inquiry recognises this deficiency and recommends that urgent reform to land use planning is undertaken that has the effect of protecting the Felton Valley and areas like it from large scale mining. Such a reform is needed to reduce social, economic and environmental costs and to remove uncertainty surrounding appropriate land use changes going forward.

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Freshwater  
Riverside Park

Clubhouse

### References

Machanick, P.2009. Critique of Ambre Energy Felton IAS  
<http://www.scribd.com/doc/11685961/Ambre-Felton-2008-critique>