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Mackay Conservation Group is a membership based, not-for-profit organisation based in Mackay, Queensland. The organisation focuses its conservation and environmental protection efforts on the Central Queensland Coast and Brigalow Belt bioregions in the area from Bowen in the north, west to Clermont and South to St Lawrence, and the off-shore islands of the Great Barrier Reef.

We have been concerned for a number of years about the way in which Queensland's legislative and planning frameworks are applied in a manner that consistently places the interests of the resource sector ahead of the long term protection of the environment, community rights and existing, sustainable industries. We aim to represent people's desires to protect and maintain our region's natural assets and encourage moves towards sustainable systems.

Submission on the Galilee Basin State Development Area

Thank you for the opportunity to make a submission on the *State Development and Public Works Organisation Amendment Regulation (No. 1) 2014* which provides for the declaration of the Galilee Basin State Development Area (GBSDA).

This submission focuses on the GBSDA as a policy initiative. For information on the impacts of the proposed rail lines that the GBSDA facilitates please see our original submission to the Co-ordinator General (attached), which details impacts of the rail lines on biodiversity and conservation areas, floodplains and agricultural land, and air quality.

In summary it is our view that the Galilee Basin State Development Area is premature and entirely unnecessary. The policy fails to meet the legislative requirement of being in the public interest and should be withdrawn. If the GBSDA remains in place, a set of recommendations for consideration by the committee are provided.

The GBSDA is unnecessary and premature

A central component of the GBSDA is the compulsory acquisition powers afforded to the Queensland government in the event that the major proponents, Adani Mining Pty Ltd, Hancock Coal Pty Ltd, Hancock Alpha West Pty Ltd and Hancock Coal Infrastructure Pty Ltd (GVK Hancock), potentially in partnership with Aurizon Holdings Ltd, cannot reach agreements with landholders along the proposed rail lines to acquire their land voluntarily.

Planning laws in Queensland have provisions for compulsory acquisition separate from State Development Areas. There are existing provisions both within the *Transport Infrastructure Act* and the *State Development and Public Works Organisation (SDPWO) Act* that allow the government to investigate rail corridors and acquire properties if necessary.

Furthermore, compulsory acquisition powers were granted to GVK Hancock for their proposed line from the Alpha coal mine to Abbot Point, when it was declared an Infrastructure Facility of Significance (IFS) under the SDPWO Act in 2011.

After December 2012 IFSs became known as Private Infrastructure Facilities (PIFs). If a facility is approved as a PIF, and negotiations between the landholder and the proponent are unsuccessful, the Coordinator-General may, on behalf of the proponent, compulsorily acquire the land¹.

These alternative legal options available to government for acquiring land to build the rail corridors render the SDA entirely unnecessary.

Furthermore the SDA, which covers two rail corridors proposed by Adani and Aurizon/GVK Hancock is premature because;

- a) Even if the Galilee Basin is developed, it is unclear whether both the rail corridors provided for by the GBSDA will go ahead given the present lack of investment interest in the international market. If both rail corridors are built this would mean an oversupply for rail capacity from the Galilee Basin mines to the ports. The existing GBSDA declaration makes no provision for this outcome.
- b) One of the proposed corridors relies on a joint venture agreement between Aurizon Holdings Ltd and GVK Hancock that has not been concluded. The agreement was tabled some time ago, and in spite of recent media comments, does not appear to be close to finalisation.
- c) Neither of the final proposed routes for the rail corridors have been given environmental approval.² By declaring the SDA so early in the approvals process it leaves no scope for amending the rail corridors in response to conditions on the environmental approval that may require route changes, and calls from graziers³ and Members of Parliament⁴ to revise the route to avoid vital floodplains

¹ <http://www.dsdp.qld.gov.au/assessments-and-approvals/private-infrastructure-facilities.html>

² Adani's EIS for the North Galilee Rail Project is before the Queensland Co-ordinator General. Whilst GVK Hancock's Alpha line has been approved, this only covers approx 300km of the 500km corridor to Abbot Point. A newer proposal to merge with the existing Aurizon rail line in the north of the basin has not been approved.

³ Central Queensland News, 22 July, 2014 Central Queensland farms on the line.

<http://www.railpage.com.au/news/s/central-queensland-farms-on-the-line>

⁴ Proposed Galilee Basin Rail line faces review. July 17, 2014. ABC Online:

<http://www.abc.net.au/news/2014-07-16/proposed-galilee-basin-rail-line-routes-face-review/5600246>

- d) The Galilee projects remain speculative due to declining global coal demand and high infrastructure costs⁵.

It is our view that the Queensland government is abusing the policy process in order to attract investment in speculative Galilee projects. We are concerned that the Queensland government has opted for an SDA because the proponents may not be able to meet the requirements for compulsory acquisition for Private Infrastructure Facilities, particularly the requirement to show **that the project will proceed within a 'reasonable time frame.'**⁶

In order to demonstrate that the project will proceed within a reasonable time frame proponents seeking acquisition under a PIF must provide evidence such as the steps and timetable for reaching financial close for the project, construction timeframes and procurement contracts.⁷ These requirements are designed to protect landholders and native title holders from being deprived of land and rights for projects that do not eventuate. Unfortunately landholders and native title holders in the Galilee Basin are not being afforded these same protections.

This is highly inappropriate given the long term impacts of SDAs on landholders and negative experiences of SDA in the Surat Basin and Gladstone (see further discussion below).

Is the SDA in the 'public interest'?

The Governor in Council can declare an SDA if they are '*satisfied that the public interest or general welfare of persons resident in any part of the State requires it*' (s77 of the *State Development and Public Works Organisation Act 1971* (Qld))⁸.

Public interest is a broad concept which allows full account to be taken of social, environmental (including sustainable development) and regional impacts, as well as economic impacts.⁹ It is important that projects proposed to be in the public interest address the impact of change on those sectors of the community and the environment which may be worse off as a consequence of changes brought by such projects.

The SDA does not meet the basic legal requirement of being in the public interest for the following reasons:

- The declaration of SDAs should be preceded by a rigorous extensive review of lands suitable for industrial development that demonstrate they can meet acceptable engineering, environment and social criteria. The public has yet to be shown such a review which for the GBSDA. Indeed the primary method of land selection appears to have been for those areas that provide the most direct and cheapest route to the port of Abbot Point from the proposed coal mines. This approach has excluded consideration of existing economic activities and sectors in the region as well as many environmental concerns that include floodplain management and 24/7 coal rail traffic through major environmental offsets and areas of significant environmental values.

⁵ Thermal Coal Paradox, Goldman Sachs. May 2014:
http://www.eenews.net/assets/2014/05/28/document_gw_02.pdf

⁶ 153AH(1)(b) of the SDPWO Act

⁷ *Private Infrastructure Facility Statutory Guideline* (December 2012), p16 – 17, accessed at
<http://www.dsdip.qld.gov.au/resources/guideline/cg/pif-statutory-guideline.pdf>

⁸ Queensland Public Works and State Development and Public Works Act. Part 6.

⁹ http://www.finance.wa.gov.au/cms/uploadedFiles/Economic_Reform/public-interest-guidelines-for%20legislative-review.pdf?n=8322

- The key justification for the Galilee Basin SDA **being in the 'public interest'** is that the development of the Galilee Basin provides overall economic benefit to Queensland (provided in the explanatory notes of the regulation). However, these benefits are related to the Galilee mine, rail and port projects, not the SDA itself.
- Even if we assumed that benefits associated with the rail projects were relevant to an assessment of the public benefit and therefore justified the SDA, it is not possible to determine whether this is the case because a robust cost-benefit analysis has not been undertaken for any of the Galilee projects – the mines, the rail nor the port at Abbot Point (see further discussion below).

The use of an SDA to advance private interests in the Galilee Basin is a significant and concerning shift away from the public interest and general welfare tests. Land will be acquired by government and leased long-term to private interests despite legitimate objections of the established grazing industry community due to environmental, social and economic impacts on their industry. **Given there are other legal options for acquiring land to build the rail corridors, the Queensland government has failed to justify why an SDA is necessary or in the public interest.**

Economic benefits of Galilee projects are overstated

The economic justification of the Galilee projects are heavily based on employment benefits which are regularly inflated. The mining industry has been a heavy user of input-output modelling, to generate estimates of the so called multiplier effect or the number of indirect jobs that are allegedly created. This effect is frequently used to claim that each mining job is responsible for the creation of between three and six jobs elsewhere in the economy.

For example, the 10,000 job figure for the Carmichael mine is based on a multiplier analysis. One of the problems with a multiplier analysis is that it assumes unlimited skilled labour and unlimited demand for coal. It makes no consideration that some workers on this mine would come from other mines. It also takes no account of the considerable pressure that opening up the Galilee Basin would put on coal prices, which would hurt other Queensland mines.

The Australian Bureau of Statistics stopped using multipliers in 2001-2 **because** 'they are a biased estimator of the benefits or costs of a project'. **Similarly, the Productivity Commission says that multipliers are regularly 'abused.'**¹⁰

Other concerns with the economic analysis of Galilee projects include:

- almost all the employment is during the short-lived construction period of 2-3 years.
- most jobs will be people drawn from other industries, particularly manufacturing and tourism, who have invested time and money in training. This will be highly disruptive to these industries and force them to compete with mining industry wages. almost all employees will be fly in-fly out, providing little benefit to local economies, but straining local infrastructure and services
- the proponents are entirely foreign owned companies, and the economic benefits, of these projects will largely flow offshore.

¹⁰ Productivity Commission Staff research note: Input-Output tables, uses and abuses. 2013. Available at: http://www.pc.gov.au/__data/assets/pdf_file/0008/128294/input-output-tables.pdf

The Australia Institute's critique of Adani's Environmental Impact Statement (EIS) for the North Galilee Basin Rail Project¹¹ concluded that;

'(the EIS) did not consider the costs and benefits of the project to the Queensland public. Instead, it relies on modelling of indirect impacts to give an unreliable picture of the project's economic influence. This approach is directly contrary to Department of Infrastructure and Planning guidelines. Instead of showing a net economic benefit to Queensland, this assessment downplays costs and emphasises indirect jobs and output to give a misleading impression of the project's value.'

Costs to existing industries are ignored

The proposed rail lines have been allowed to take low cost routes over major floodplains on the Belyando and Suttor river systems. This will disrupt floodplain hydrology, leading to erosion, land degradation and damage to other infrastructure¹². Much of the affected floodplain is highly productive soil types that would normally produce a higher turnover and return on asset than other areas. Properties will be divided by rail lines carrying up to forty, 4 kilometre long trains each day. This will make it difficult for landholders to access areas of their properties and it will be virtually impossible to move livestock to cut off sections. This represents a major disruption to grazing operations. Feedback from some landholders indicates that their businesses may become economically unviable if the rail lines go ahead. These long-term economic and social costs have not been quantified nor taken into account in the decision to approve this SDA.

The cost of the proposed rail lines on the agricultural industry in the region need to be considered as part of a robust cost-benefit analysis of the Galilee projects to determine if in fact, they are in the 'public interest'.

The SDA fails to meet the basic legislative requirement of being in the public interest. The only justification for the policy relates to the economic benefits of rail projects which are speculative and are yet to gain environmental approvals. It is not possible to determine whether the rail projects are in the public interest or not because their economic benefits have been inflated and the costs to existing, established industries in the region including agriculture have not been calculated.

Recommendations:

- 1. Withdraw the Galilee Basin State Development Area because it fails to meet the basic legislative requirement of being in the public interest.**
- 2. Undertake a full cost benefit analysis of the Galilee rail projects to assess the negative economic impacts on the agricultural industry associated with the loss and disruption of farming land and floodplains.**

¹¹ <http://www.tai.org.au/content/submission-north-galilee-basin-rail-project-0>

¹² Railroaded; Carving up food lands for coal transport. 2014. Report by Hydrocology Environmental Consulting. Available at: <http://www.lockthegate.org.au/railroaded>

The SDA removes landholder and native title rights

The threat of compulsory acquisition is extremely stressful for landholders and is an added pressure to sign agreements with the proponent that are unsatisfactory. In this context, it is **critical that landholder's rights in the negotiation process are protected.**

Landowners and native title holders affected by an SDA have few rights other than to agree to or refuse any compensation the state offers. When the Gladstone State Development Area, 15km north-west of Gladstone, was extended in 2001 following widespread toxic emissions from a failed oil shale pilot processing plant, ruined, organic farmers had little choice but to accept very low buyout prices for their properties. The Gladstone SDA has been amended numerous times and now covers 29,000ha. Because there are no requirements for an EIS to be undertaken for an SDA, expansions can occur without an assessment of impacts on the community or accountability to the public.

Mt Larcom residents have long been of the opinion that the SDA is preventing the town from growing. In 2011 the State Government stopped a plan to build 225 homes in Mt Larcom because of the planned estate's proximity to the SDA.

The forgone opportunity costs to this community are an economic loss not being factored into such decisions. Decision making associated with SDAs should be supported by full cost-benefit analysis to make sure such decisions are in the public interest.

In contrast to an SDA, Statutory Guidelines¹³ for PIFs set out a range of procedures, obligations and requirements that are absent for SDAs. These guidelines provide various safeguards such as;

- full disclosure by the proponent
- obligatory negotiations in good faith
- provision of a proponent's valuation
- undertaking to pay for the landowner's valuation, payment of the landowner's costs as incurred (regardless of whether agreement is reached)
- acquisition as a last resort and then only if it is accepted the project can and will go ahead.

These protections are absent from the SDA. The Coordinator General's Fact Sheet on the GBSDA of June 2014 seems to give some assurances reflecting parts of the PIF safeguards, such as resumption powers only to be used as a last resort, and subject to whether private interests have put their money up and the certainty of the project actually proceeding. But those assurances are not part of the State Development Areas non-PIF resumption provisions, so their status is weak.

The SDA is entirely unnecessary because the government already has the power to acquire land for the rail corridors. The policy is a heavy-handed approach that removes landholder and native title rights with respect to compulsory acquisition of their land.

Recommendation 3: The Queensland government should prepare statutory guidelines for proponents in an SDA that set out rights and obligations on both sides.

¹³ <http://www.dsdip.qld.gov.au/resources/guideline/cg/pif-statutory-guideline.pdf>

The GBSDA will drive down land values and is stalling agricultural productivity

There are serious concerns that the GBSDA will drive down land values. Providing evidence of the negative impact of SDAs on property values is extremely difficult because it can only be proved by comparable sales (within and outside of an SDA) and there are almost no private sales of properties after an SDA is declared.

However previous experience from the Surat Basin indicates that SDAs do reduce property values by affecting attitude of purchase and by rendering properties unsaleable. A similar SDA scheme for a coal rail line in the Surat Basin resulted in the sale of one property at a reported 30% loss in land value¹⁴. Forty one of a total of forty four landholders had land acquired and then the mine never went ahead. Yet the SDA is still in place.

The GBSDA is designed to fast track the rail projects to boost investor certainty in the Galilee Basin coal projects but it removes certainty for farmers. Uncertainty about compulsory acquisition of land and future use of land under the SDA prevents investment and expansion of farm infrastructure and damages farm productivity.

There is still considerable uncertainty as to whether the Galilee Basin projects will go ahead. New coal infrastructure is at risk of becoming stranded assets due to declining global demand for coal. Financial analysis indicates that the Alpha mine owned by GVK – one of the major new coal mines for which the new rail and port infrastructure is being planned – is unlikely to proceed as GVK is mired in debt and has no experience building coal mines¹⁵. **Similarly, analysis of Adani's projects in the Galilee basin concluded that their plans to develop the Carmichael mine are uneconomic and financially risky due to the company's large amounts of debt¹⁶.**

Landholders have already been in negotiations with proponents for several years now. Negotiations are time consuming, stressful and costly. Further delays to construction timelines are likely and will exacerbate impacts on landholders and farm productivity.

The SDAs is likely to negatively impact land values and uncertainty about compulsory acquisition is slowing farm productivity. There is considerable uncertainty about whether the rail lines will go ahead due to declining demand for coal. Therefore there is a high risk that the situation in the Surat basin where landholders were left with an SDA associated with a failed mine/rail project will be repeated in the Galilee basin.

Recommendation 4: Instigate a sunset clause in the SDA to ensure that if the projects do not proceed within a set timeframe the SDA is revoked.

¹⁴ 'Wandoan's coal woe's. Queensland Country Life. ', December 12, 2013
http://www.queenslandcountrylife.com.au/news/agriculture/general/news/wandoans-rail-woe/2681463.aspx#_blank

¹⁵ 'Stranded: Alpha coal project in Australia's Galilee Basin', Institute for Energy Economics and Financial Analysis. Available at: www.ieefa.org/report-stranded-alpha-coal-project-in-australias-galilee-basin/

¹⁶ Remote prospects: A financial analysis of Adani's coal gamble in Australia's Galilee Basin. Institute for Energy Economics and Financial Analysis. 2013. Available at: http://www.ieefa.org/adani_coal_report/

The majority of landholders are opposed to the SDA

There is considerable concern among affected landholders about the policy. A landholder's resolution to reject the SDA was delivered to Minister Seeney on 20th May, 2014 by a landholder network Corridor to Coast. It cited concerns about impacts on property values and impacts on landholder rights. The resolution was supported by landholders representing more than half the properties in the proposed SDA.

Feedback from landholders indicates that consultation by government on this issue has been inadequate to date¹⁷. The original SDA maps were poorly drawn and obviously developed very quickly, and released without an understanding of the impacts. Communication with landholders has been poor and there is a lot of confusion about the nature of the impacts of the SDA, eg. on future land use within the designated area, air pollution and fire hazard risks, and timely access across properties to maintain business operations.

Recommendation 5: Hold public hearings for this inquiry in locations where affected landholders can attend, eg Clermont, Collinsville or Bowen.

Summary

In summary, it is our view that the SDA is unjustified and unnecessary and will have long-lasting negative effects on landholders. The policy facilitates state purchase of land primarily for the benefit of privately owned mining and rail companies at the expense of existing, profitable industries. The declaration has already had serious impacts on landholders by causing stress and confusion, and stalling agricultural productivity, and is likely to drive down land values.

Recommendations

1. Withdraw the Galilee Basin State Development Area because it fails to meet the basic legislative requirement of being in the public interest.
2. Undertake a full cost benefit analysis of the Galilee rail projects to assess the negative economic impacts on the agricultural industry associated with the loss and disruption of farming land and floodplains.
3. The Queensland government should prepare statutory guidelines for proponents in an SDA that set out rights and obligations on both sides in order to protect landholder rights in the negotiation process.
4. Instigate a sunset clause in the SDA to ensure that if the projects do not proceed within a set timeframe the SDA is revoked.
5. Hold public hearings for this inquiry in locations where affected landholders can attend, eg Clermont, Collinsville or Bowen.

¹⁷ John Burnett, affected Grazier speaks about the lack of consultation with landholders.
<http://www.abc.net.au/news/2014-06-16/nrm-galilee-basin/5526540>



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Submission on the draft Galilee Basin State Development Area Proposal

Mackay Conservation Group is a regional ENGO covering the area from the top of the Whitsundays south to Broadsound along the coast and adjacent Great Barrier Reef waters and west to Clermont. We work with our colleagues in adjacent North Queensland Conservation Council and Capricorn Conservation Council as well as Cairns and Far North Environment Council on matters of mutual interest that go beyond our borders.

We are very concerned about the lack of information available on the economic, environmental and social impacts of the proposed Galilee Basin State Development Area (GBSDA).

For example while the Queensland government states it only wants two rail corridors (the North South and West East) it does not say how many rail lines would be in these corridors.

"The government's made it clear that we want a rationalisation of the infrastructure, especially the lines, we want the minimum number that can be established to minimise the impact on land owners and the environment.

"We've indicated a preference but the actual investment decisions are up to the individual proponents."¹

Jeff Seeney, Deputy Premier and Minister for State Development, Infrastructure and Planning

¹ <http://www.abc.net.au/local/stories/2013/08/12/3823724.htm>

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Obviously the first line in each corridor would go the first approved proponent but what happens after that? The scale of the GBSDA is enormous at greater than 18,000 km², and the corridors are wide enough to accommodate more future parallel rail lines. The coal export capacity of the first line in North South corridor will be 100 million tonnes per annum (Mtpa). That would easily be met by development of the current proposed mines of GVK Hancock, and Adani. What about rail capacity for the other proposed coal mines in the Galilee Basin e.g. Waratah Coal or China Stone? It appears that there will have to be more rail lines within the rail corridors in the future if demand dictates, and possibly more rail corridors. We see no discussion or plans or economic assessments of the impacts of that.

The current proposal of one line within each corridor will have significant implications for affected communities and land owners as well as the environment in terms of air and noise pollution impacts and economic impacts on the existing grazing industry.

The Deputy Premier and State Development, Infrastructure and Planning Minister met with Coast to Corridor – Galilee Network’s (C2C) steering committee last week to discuss the decision and to hear the group’s objections to the corridors’ proposed alignment.

Isaac Regional Council (IRC) Mayor Anne Baker, who was at the meeting, said there was a serious disconnect from work conducted by mining proponents and local knowledge.

“It’s critical that work is done on the Terms of Reference for a project to ensure all stakeholders have the opportunity to comment and input,” she said.

“We need some common sense legislation.”

She said landholders and residents were against the proposed locations of the corridors, not their development.

“The proposed position of the Hancock/GVK rail corridor will cause serious harm to vast tracts of productive land, agricultural business’ and the environment.

“With the State’s best interests in mind, we want to see a correctly placed corridor to benefit all industries, stakeholders and the environment now and into the future.”

Seeney said paying out proponents who have had applications approved and then starting again would be too expensive.

“While paying them out would be a lot of money – money is not the issue,” Mayor Baker said.



“Landholders and residents are screaming for a voice and calling on the Government to get it right by stepping back from the proponents to take proper assessment and to include all stakeholders in the process before making decisions.”²

More lines will seal the fate of these affected sectors as the grand plan appears to be the industrialization of the Galilee Basin and the GBSDA. Development of unconventional gas is also envisaged for the coal and shale deposits in the Galilee Basin so the proposed rail corridors are likely to accommodate future gas pipelines and possibly electric utility lines. Agriculture and the natural environment cannot co-exist with that. If the Queensland government believes they can it is up to them to demonstrate clearly it is possible.

The draft GBSDA report acknowledges that community values most likely to be affected are associated with public safety and amenity, air quality, noise and nuisance, rights of access, employment, cultural values and the environment, but just states it will address and mitigate where possible. It does not even justify the need for such a massive development.

Need

The majority of coal planned to be mined in the Galilee Basin would be exported to India.³ Growth in the rate of coal use in China is expected to grow moderately and peak in 2020, declining thereafter.

Growth in India’s domestic coal production is not expected to keep pace with its requirements because of difficulties in obtaining relevant land access and environmental approvals for developing mines as well as transport infrastructure bottlenecks. Accordingly, India is expected to become more reliant on imported coal over the outlook period. Some of this coal is expected to be secured through the development of foreign assets, particularly in the Galilee Basin in Australia and South Africa. India’s thermal coal imports are projected to increase at an average rate of 6 per cent a year to 182 million tonnes in 2019.

The majority of India’s coal imports are received at India’s ‘minor ports’. In order to accommodate the expected expansion in coal imports, the Indian Government has embarked on a program to increase handling capacity and modernise its major ports— Kolkata, Paradip, Visakhapatnam, Ennore, V.O. Chidambaranar, Haldia, Chennai, Tuticorin, Cochin, New Mangalore, Mormugao, J. L. Nehru, Mumbai and Kandla. The capacity of these ports to receive coal imports are limited by size, low berth productivity, limited stockyard capacity and poor interconnection with the regions. The program will seek to address these issues and increase handling capacity by 58 million tonnes a year over the next 3–4 years.

The capability of India’s ports and transport infrastructure to handle large imports of coal and deal with the greenhouse gas pollution and health costs⁴ that come from a heavy reliance on coal as a major energy source for industrialisation is problematic. Obtaining financing for coal-fired power plants is becoming difficult.

² http://www.isaac.qld.gov.au/council/media-releases/-/asset_publisher/Ng08/content/plea-to-reassess-rail-corridor-alignment

³ <http://www.bree.gov.au/sites/default/files/files//publications/req/REQ-2014-03.pdf> p.43

⁴ The World Health Organization (WHO) estimate that in 2012 3.7 million people died from exposure to outdoor air pollution.



“For the first time, we are facing this strange problem. Production plans are going awry as those were based on commitments from utilities, which now are reluctant to lift coal. We might end up missing off-take targets - for no fault of our own,”

a senior Coal India executive.⁵

Indian coal imports growth to slow:

Last year, CIL had decided to import five-million tonnes of coal by the end of March. However, a tender seeking an importer of coal did not elicit any response. In response to the second tender floated, government-owned trading house, MMTC was the sole bidder; however, the import contract was unlikely to be concluded in the next few months, considering the substantial fall in demand over the past few months and high stocks at power plants, the official said.

According to government estimates, total Indian coal imports during 2013/14 would touch around 149-million tonnes, up from 138-million tonnes in the previous year. But the growth rate in imports were expected to fall substantially in the next fiscal period in view of a slowdown in the economy, a fall in the generation capacity of power plants, and financial distress at several power distribution companies preventing them from increasing power purchase from generating companies

The government-owned Coal India is set to abandon plans to import five million tonnes of coal due to a fall in demand. While Indian imports are expected to reach 149 million tonnes for 2013/14, up eleven million tonnes on the year before, the rate of growth is expected to slow. A slowing economy and financially distressed distribution companies limiting power purchases are contributing to the slowdown. (*Mining Weekly, Business Standard*)⁶

India is also facing great political resistance to the displacement of poorer communities to build coal-fired power plants.

As the costs of renewable continues to fall, India is increasing its share of these alternative energy sources.

Thermal coal prices are now below the value necessary to justify development of the Galilee Basin. Coal mining companies in Australia have contributed to this price decline by stepping up exports to maintain profitability in the face of decreasing demand from China. The Queensland government also has a requirement to take or pay at its coal ports and this is also pushing mining companies to increase coal exports, flooding the market and driving prices down further.

Thermal prices to fall further: Bank of America Merrill Lynch has slashed its 2014 estimate for the Newcastle thermal coal, the Pacific market benchmark, from US\$82 to US\$74 due to slowing Chinese growth and increasing supply. “A combination of widespread loan defaults ... and clean air initiatives in China could spell even more trouble for sea-borne coal in the months ahead,” the bank wrote in a research note. (*Reuters*)⁷

⁵ http://www.business-standard.com/article/economy-policy/coal-supply-eases-but-calm-may-be-short-lived-114032400003_1.html

⁶ <http://www.miningweekly.com/article/indias-coal-imports-to-slow-down---cil-2014-03-24>

⁷ <http://www.reuters.com/article/2014/03/20/energy-coal-prices-idUSL6N0MH30Y20140320>



Capital Economics downgraded their forecast for thermal coal for 2015 to US\$70/t and for 2016 to US\$65/t from the current 3-4 year low of US\$75/t.

A new research report by CITI "*The Age of Renewables is Beginning — A Levelized Cost of Energy (LCOE)*," finds that renewables energy, primarily solar and wind, costs continue to decline and are increasingly competitive with natural gas peakers (*natgas plants that turn on during periods of high demand — ed.*) and CCGT (combined cycle gas turbine) plants on an LCOE (*the lifecycle cost of an electricity generation system — ed.*) basis.

These are risks to the development of the Galilee Basin that needs careful assessment by the Queensland government before approving the Galilee Basin State Development Area and these mines. It is a matter of public interest that must be addressed in Queensland's state government planning decisions to gain public trust and avoid the disaster of stranded assets at the expense of the agricultural sector in this region.

The Governor in Council can declare, by regulation, a State Development Area (**SDA**) if they are "satisfied that the public interest or general welfare of persons resident in any part of the State requires it" (s77 of the *State Development and Public Works Organisation Act 1971* (Qld)).

Australia has historically relied on mining booms that come from the development of an underdeveloped country. It relies on its coal to always be in demand because of its lower ash and sulphur content, and its proximity to major Asian markets. Coal in the Galilee Basin is higher in ash and sulphur content than the Bowen Basin so long-term demand for its coal is less predictable as India faces the need to deal with its greenhouse gas emissions and health costs as it industrialises.

Coal has been a comparatively cheap energy source to power development in developing countries, but that situation is likely to change as more and more is used to meet demand. Higher greenhouse gas emissions are contributing to increasingly adverse climate change impacts and higher health costs that will have to be factored into the cost of coal and power. That is going to affect demand for coal as alternative sources of cleaner energy increasingly become more affordable.

China is already moving to address its health and emission costs as political unrest rises with the pollution and health impacts of burning thermal coal. India will face the same situation.

Scientists now predict average annual world temperature to rise 6 °C by 2100. Humans are unlikely to cope well with the impacts of such a rise. By comparison the average temperature of the Earth dropped 5 °C in the last Ice Age. That gives some idea of the scale of impacts of such a rise.

The major mining companies proposing to develop coal mines in the Galilee Basin that are still proceeding are GVK Hancock and Adani, both Indian companies. They are facing great difficulties in obtaining investment partners and the needed financial investment to

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constrict the mines, ports, and rail infrastructure needed to proceed. While demand for energy resources is predicted to improve in 2015 there is no guarantee it will be primarily for coal as unconventional gas supplies flood Asia.

Deputy Premier and Minister for Infrastructure and Planning Development, Jeff Seeney, is quoted as saying:

"If this project, or any of the Galilee coal projects, go ahead it will mean the development of a new coal province, a new mining area, that will provide economic benefits for generations of Queenslanders."⁸

It is up to the Minister to provide the evidence that development of the Galilee Basin coal mines and supporting rail infrastructure the proposed GBSDA will be of economic benefit.

We have yet to see any independent cost/benefit analysis that demonstrates real economic benefit and that justifies the risk of Queensland being left with stranded assets with large scale coal mining development in a new coal basin, and massive disruption of the agricultural sector and natural environment in the Galilee Basin (247,000 km²) and Galilee Basin State Development Area (>18,000 km²).

We regard such an analysis to be critical for public acceptance of such a major project as the window of opportunity for Galilee Basin thermal coal may have already closed.

Strategic vision

This is in section 4 of the draft Development Scheme for the proposed Galilee Basin State Development Area.

(1) The vision for the GBSDA is to:

(b) facilitate increased opportunities for Queensland through the export of coal from the Galilee Basin;

MCG Comment

Describe these opportunities and provide information that demonstrates that there will be increased opportunities for Queensland, and show that there will be a net benefit through independent cost benefit analyses of short and long-term economics; social and environmental impacts to Queensland especially Central Queensland.

Coal rail transport and supporting industries are becoming more mechanised and many operations will be managed via computer from Brisbane or elsewhere. There will be fewer jobs per tonne of coal exported from the Galilee Basin.

⁸ <http://www.abc.net.au/local/stories/2013/08/12/3823724.htm>



c) ensure identified rail corridors and supporting infrastructure are protected from incompatible land uses;

MCG Comment

We note that the proposed proponent rail lines run through three Environmental Offset Hubs of High Conservation Values placed partially within the GBSDA. This includes the grazing properties mapped as High Conservation Area Offset Hubs of St, Albans, Beresford, Moray Downs, Stratford Warrigal, Glen Avon, Chesterfield, Terang, Mt. Coolon Station, Cantaur Park, Gleneva, Cerito, and Why Not. These areas are highlighted in green in Fig. 1.

Proposed rail corridors run through all of these properties except Gleneva which is sandwiched between two proposed rail lines. The final selected corridors will affect most of these properties and their high conservation values. As the corridors will last for 90+ years the impacts are likely to be significant, and should be avoided.

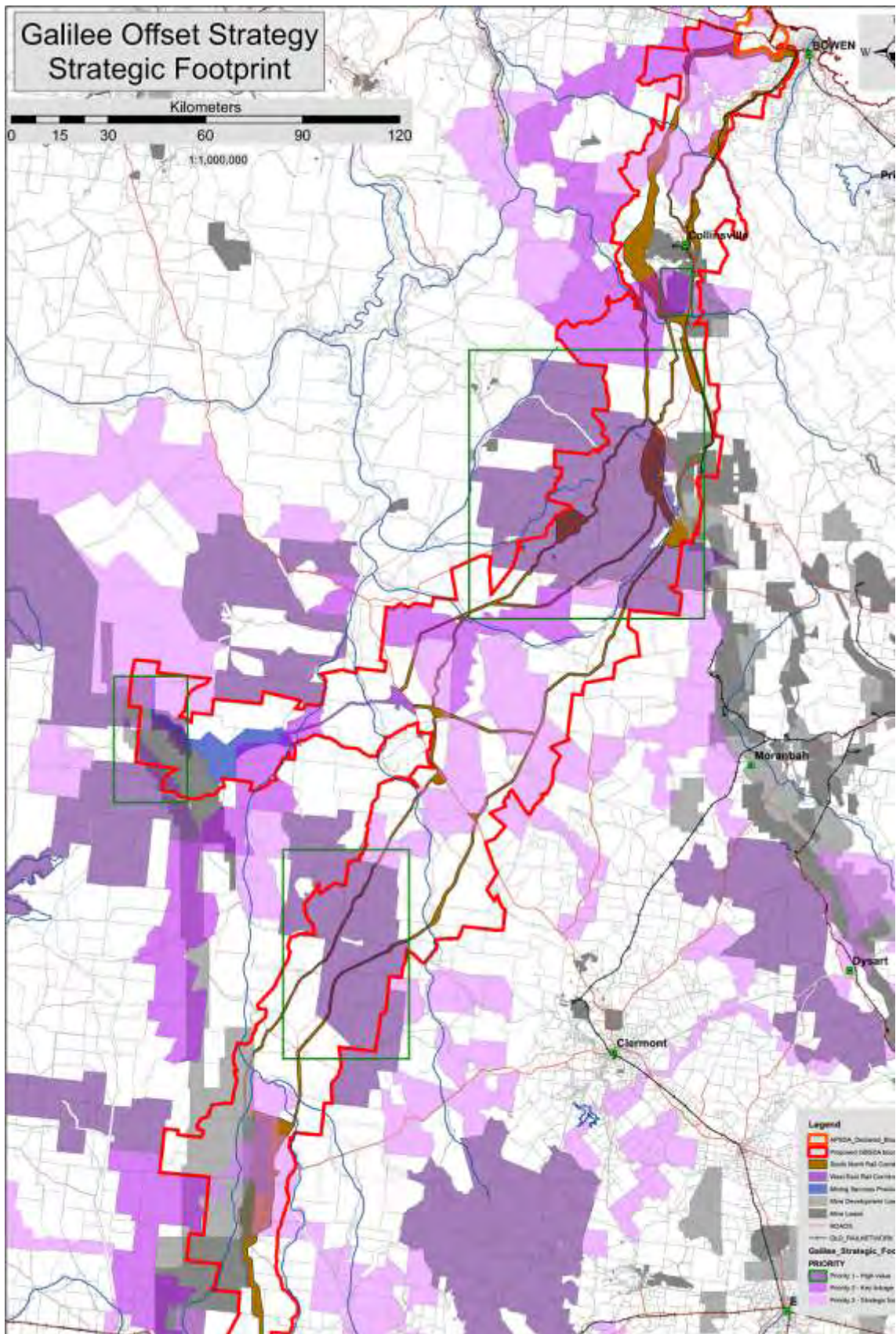
State Development Areas are supposed to be for economic and social developments that are in the public interest. Environmental areas of high conservation values should not be in a State Development Area. It is incompatible land use and a direct threat to loss of those environmental values as only areas with declared offset arrangements or management plans are protected for the life of the offset agreement. These HCV areas would also be subject to air and noise pollution from the relentless coal train traffic which is another threat to their environmental values. This information was brought to the attention of the Queensland Environment Minister during an ENGO Environmental Roundtable in 2013 by us but has apparently been ignored.





Legend for Fig. 1





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Fig. 1 High Conservation Areas within the proposed Galilee Basin State Development Area

In addition there are twenty-one National Parks and other areas listed as protected within the National Protected Area System which are partially within or adjacent to the GBSDA (Table 1).

Protected Area	Within GBSDA	Within GBSDA Rail Precinct	Adjacent to GBSDA	Adjacent to GFSDA Rail precinct	Distance from GBSDA (km)	Distance from GBSDA Rail Precinct
Mt. Abbot NP			X			
Mt. Aberdeen NP	X	Partially				
Mt. Aberdeen NR	X	Partially				
Homehaven NR	X	Partially				
Flagstone NR			X		7	9
Blackjack Mt. NR	X					1.75
Hells Gate NR					6	8
Newlands NR			X			6.5
Eaglefield NR	X		X	X		
Nibbereena NR	X		X	X		
Mazeppa NP			X			3.5
Nairana NP & Nairana NP (Recovery)			X			7
Bygana West NR					6	6
Bygana NR					5	8
East Top NR					14 to NW	20 W to E Precinct
East Top NR					16	21 S to N Precinct
Doongmabulla Mound Springs NR					0.5 to 3	14 W to E Precinct
Epping Forest NP			X			12 S to N Precinct
Narrien Range NP					5	19 S to N Precinct
Cudmore NP			X			17 S to N Precinct
Bimblebox NR			X			7 S to N Precinct

Table 1. National Protected Area System properties partially within or adjacent to the GBSDA.

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Sonoma State Forest north of Collinsville would also be within the North South Rail Corridor (Fig.2).

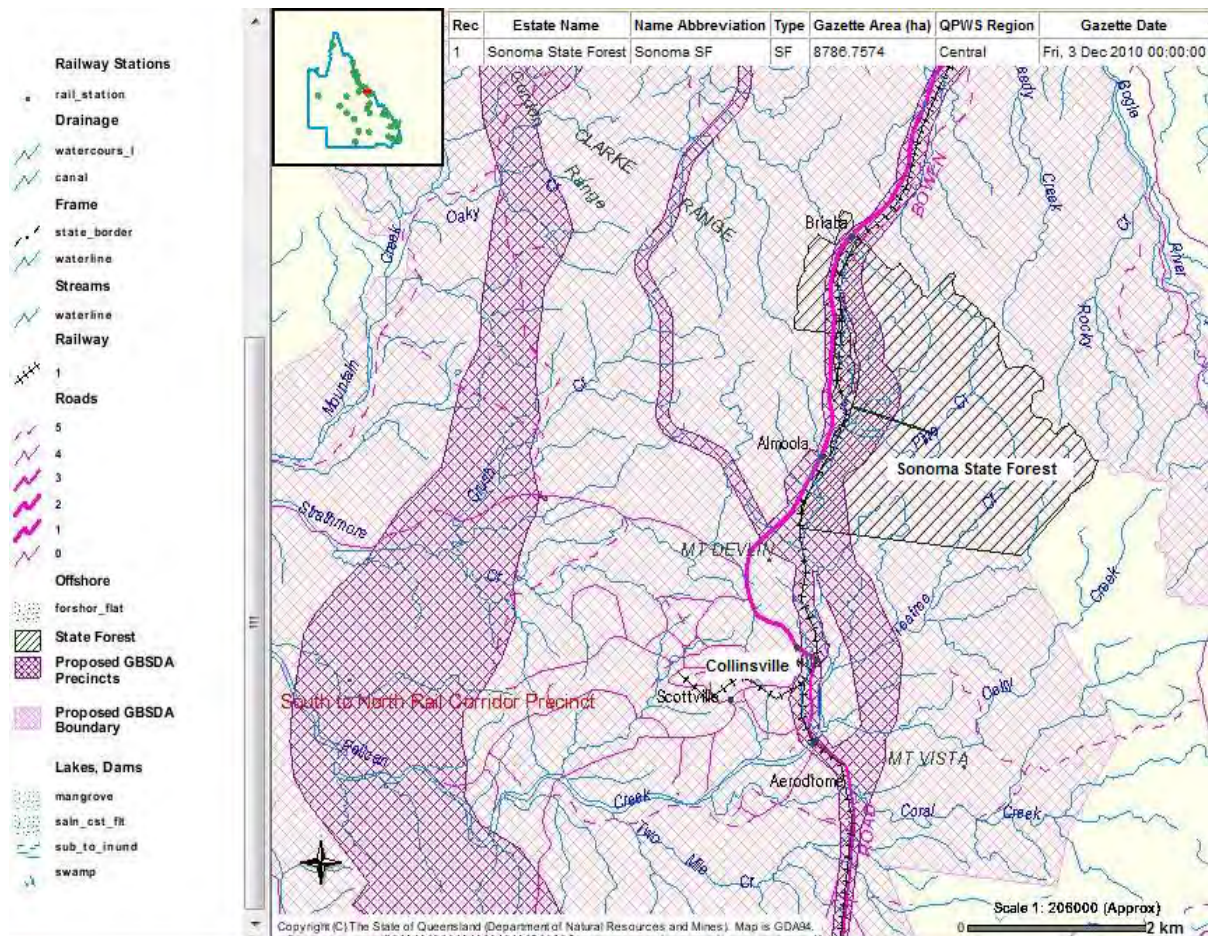


Fig. 2 Location of Sonoma State Forest in relation to the proposed North South Rail Corridor.

Why aren't these areas being protected from the impacts of intensive 24/7 heavy coal rail traffic required?

How does the draft GBSDA relate to any existing Environmental Management Plans for these Protected Areas?

(d) ensure a coordinated approach to developing rail and supporting infrastructure;

MCG Comment:

Define what is meant by coordinated approach for this proposal. It does not appear to be well-coordinated at the regional scale with regard to land owner, community and environmental impacts.

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(e) provide greater certainty to industry and stakeholders;

MCG Comment:

Stakeholders include individuals and groups who want certainty that at a minimum there will be no net loss of biodiversity and endangered or vulnerable remnant vegetation; community health will be protected; and the viability of the existing profitable grazing industry in the area encompassed by the proposed GBSDA will be maintained. There is little to no evidence from the Draft Development Scheme for the Galilee Basin Document and current Queensland environmental standards, policies and regulations that such promised certainty can be provided.

The government has not stated which rail precincts will be selected and the corridor mapping is imprecise. This creates confusion, stress and inability to plan in affected communities, businesses and grazing properties. It adversely affects property values.

(f) ensure development in the GBSDA occurs in a logical sequence and is equally focussed on the short and long term economic benefits to the region and State.

MCG Comment:

This proposal has been contemplated for many years and economic circumstances have changed significantly since it began. There is also widespread opposition to the present draft plan as having adverse impacts on agriculture, communities and the environment. An independent comprehensive cost benefit analysis needs to be done to assess any short and long term net benefits to the region and State before it proceeds any further.

(2) The strategic vision is supported by the GBSDA land use precincts which are shown in Schedule 2.

MCG Comment:

The proposed Land Use Precincts should be shown in relation to impacted communities, areas of high conservation and agricultural significance, and floodplains which are at high risk of flooding and causing “force majeure” costs to the Queensland government (i.e. royalty payments lost because of heavy flooding which delays coal trains)

The Precinct Use Tables describe compatible Uses within the precincts but fail to take into account the high pollution and noise levels that could adversely affect non-project activities.

Current air quality and noise pollution standards will be insufficient to adequately minimise the expected impacts from these sources of pollution which will be constant i.e. 24/7 for 90+ years.



Air Pollution from Coal Rail Traffic

Schedule 3—Assessment criteria (Draft development Scheme for the Galilee Basin)

Table 5 in the draft Development Scheme Plan Assessment - Criteria for development in the GBSDA

Emissions	
3.	Development: <ul style="list-style-type: none">• is designed to avoid or otherwise minimise adverse impacts from emissions that will affect the health and safety, wellbeing and amenity of communities and individuals;• supports the achievement of the relevant acoustic and air quality objectives of the Environmental Protection (Noise) Policy 2008 and the Environmental Protection (Air) Policy 2008 (Appendix 5).
4.	Development is to minimise potential impacts of conflicts arising from (but not limited to) spray drift, odour, noise, dust, smoke or ash emissions with sensitive uses. This can be achieved by an effective separation or other demonstrated effective management tool.

Jeff Seeney, Queensland Minister for State Development, Infrastructure and Planning announced March 4th that the townships of Merinda and Collinsville would be removed from the draft Galilee Basin State Development Area.⁹ This meant that landowners within the proposed coal rail corridors, that had previously overlain Merinda and much of Collinsville, would no longer be subject to the loss of their homes by acquisition for the corridor. The rail corridors are to be restricted in width to avoid intruding into the urban areas of these townships.

Collinsville already has a state-approved plan for a bypass around the town which is located to the east of the town.

Coal traffic capacity of the final accepted rail proposal, if it is initially to be greenfield lines from the Galilee Basin mines to join the existing north-south rail line north of Moranbah to the port of Abbot Point will be around 100 Mtpa. This could handle start-up coal volume from the GVK/Hancock Alpha and Kevin's Corner mines and the Adani Carmichael mine and current rail traffic. If demand dictates in the future more expensive longer, wider gauge

⁹ <http://statements.qld.gov.au/Statement/2014/3/4/urban-areas-in-north-queensland-towns-shielded-from-rail-corridor>



proposed coal rail lines by Adani, GVK/Hancock and Waratah Coal could be built later to Abbot Point and possibly Dudgeon Point.

Until additional port capacity at Abbot Point is built that port cannot handle more than 50 Mtpa so it will be a few years before the expected 100 Mtpa of rail capacity from an existing line and greenfield lines from the Galilee Basin could be exported through the port of Abbot Point.

Current coal export traffic through Abbot Point is just under 20 Mtpa at 17.745 million tonnes 2012-2013.

At capacity of 100 Mtpa coal traffic along such a coal rail corridor would increase more than five-fold.

This has serious implications for “sensitive receptors” receiving emissions of hazardous coal dust from the rail wagons; carcinogenic diesel, nitrous oxide, sulphur and PAHs from the diesel locomotives ;and noise pollution from the coal train traffic along the final chosen coal rail corridor. Such receptors include especially the townships of Merinda and Collinsville who would not be protected by a narrower rail corridor width.

The present rail line at Merinda (which would be a part of the proposed North South GBSDA rail corridor) is only 20-50 metres north of residential housing in Merinda and 100m from the Merinda primary school (Fig. 3)



Fig. 3 Proximity of Merinda to the proposed North South GBSDA rail corridor.

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If the rail bypass is built around Collinsville it would be ~1.5km east of the town, still not far enough away for residents to be free of PM2.5 fine particulates deposition and visible PM10 particulates deposition. Fine particulates cannot be dispelled from the lungs and accumulate over time and are associated with respiratory and other diseases, as are PM10 particulates.

If the existing line is used Collinsville residents' exposure to particulates pollution will be much higher. A kindergarten, four primary schools and a high school are within 800 m to 2.5 km of the current coal rail line, the proposed North South rail corridor (Fig. 4)

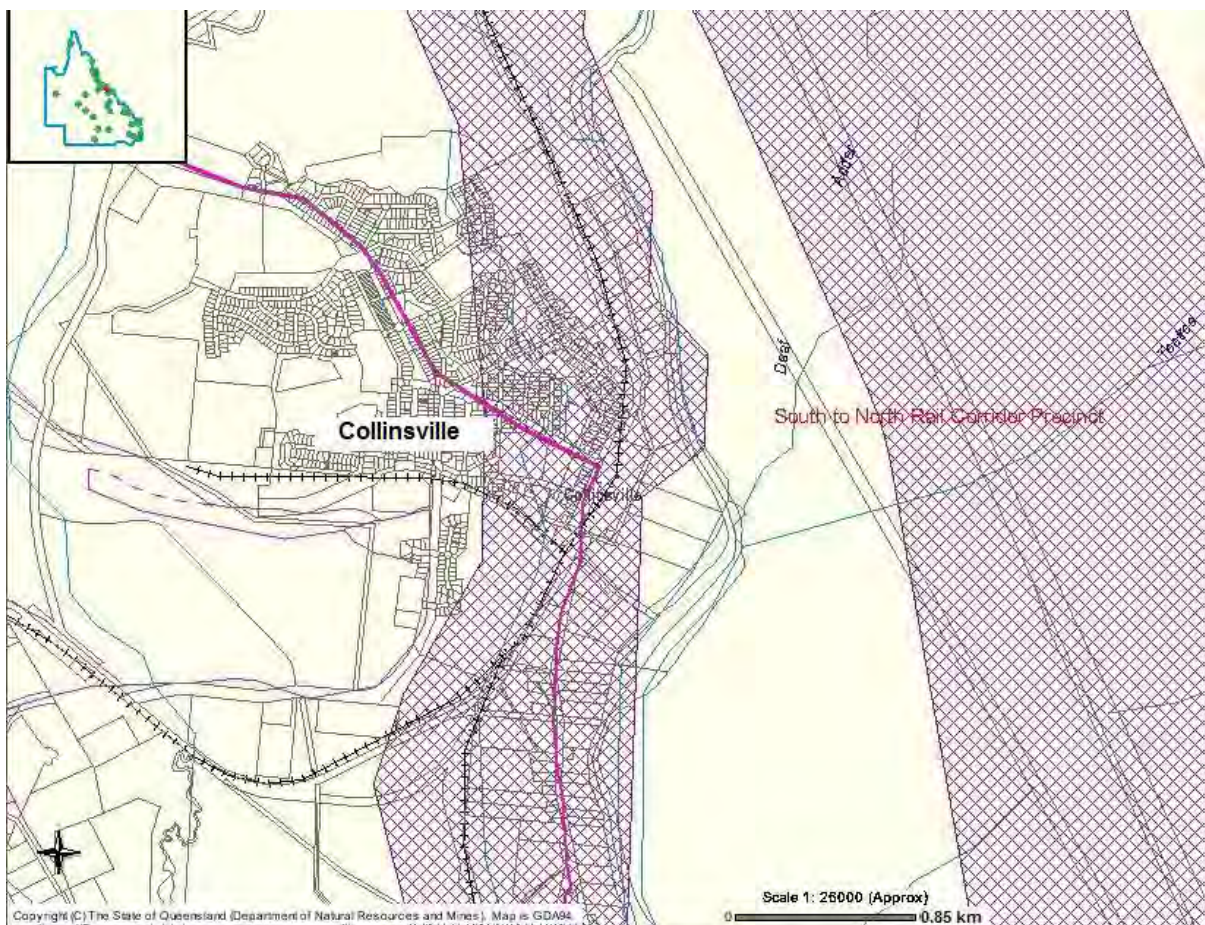


Fig. 4 Location of existing rail line (left) and bypass rail corridor (right) in relation to Collinsville

We reviewed visible particulates monthly dust deposition data reported by North Queensland Bulk Ports between 2000-2012 for residential sites around the Hay Point coal port land's coal stock piles. We found 98% of samples contained visible coal dust at sites within a few hundred metres of the coal stockpiles. This percentage dropped to 40-50% around 2 km south of the stock piles. At 8 km south of the coal stock piles coal dust content had dropped to 1-2% of the samples. Prevailing winds blow from the southeast so we expect



that visible coal dust travels farther northwest of the coal stock piles. This data shows that substantial amounts of visible coal dust travels at least 2 km downwind of a coal source.

This is a greater distance than predicated in dust deposition modelling data presented in the coal company EISs. While we realise coastal weather conditions may be different from those in Collinsville and Merinda, ground-truthing of dust deposition modelling results needs to be done along the existing coal rail line to see how reliable the modelling is.

These stock piles are sprayed with water under higher wind speed conditions so we could expect coal dust particulates from uncovered coal wagons, which will be the case for the coal wagons in the Galilee Basin SDA rail corridor, to travel much farther and in higher concentrations.

Dust deposition samples we collected in 2013 along the coal rail line entrance to Hay Point showed coal content from 50-65%.

The coal industry claims that veneering, which involves spraying a fixative on to the coal in the coal train wagons, can reduce coal dust emissions by up to 80%. Train engineers tell us that under on-site conditions the actual percentage reduction is much lower, as the veneer spray is applied unevenly and during the train trips vibrations and other train movements shake the veneered coal layers loose.

The only solution is to cover the coal wagons to more effectively mitigate the coal dust emissions. Even if the rail lines are changed to bypass the townships, there are individual landholder homes and other sensitive receptors such as stock, crops and wildlife that will be along the final rail route, so covering wagons is the only workable solution if health is to be protected.

As WHO has found no level below which particulates do not harm human health, reliance on the current Queensland air quality standards to effectively protect human and environmental health cannot be guaranteed. Their air quality standard thresholds are being continually revised downwards as more evidence of the costs to human health and the environment become known.

The National Environmental (Air Quality) Protection Measures (NEPM) underwent a review in 2011 and twenty-three recommendations were made to COAG to upgrade the national standards (which Queensland uses). These have yet to be implemented.

This rail corridor is planned to be in use for at least 90 years (the proposed life of Adani's proposed Carmichael Mine in the Galilee Basin) . The air quality standards were not designed for such long-term exposure. In this case it would be prudent for the Queensland government to require much more stringent requirements than the present standards to protect human health and community amenity.

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Management tools to handle air and noise pollution for such a large scale project lasting for up to 100 years have yet to be devised. Noise barriers and coal veneering are likely to be of only limited value where “sensitive receptors” are so close to the pollution source. It appears likely that the townships of Merinda and Collinsville and other affected land owners will have to be moved farther away from the rail line, or the rail line route will have to avoid such sensitive receptors. Coal wagons should also be completely covered.

Diesel Emissions

This still leaves the problem of diesel emissions from the locomotives.

The populations of Merinda and Collinsville are too small to conduct a statistically valid epidemiologic study of the impacts of past and current exposure to particulates pollution, but our information is that Collinsville does have a high incidence of cancers and respiratory diseases.

Where disease incidence information is lacking and there are well-known health impacts from prolonged exposure to particulates emissions, the Precautionary Principle should be used i.e. measures taken to reduce or eliminate exposure to such pollution. If that is not possible then the project should not proceed.

As no safe level of exposure to particulates pollution has yet been found, and the pollutants involved are particularly hazardous, particulates emissions from the coal trains and their loads should be eliminated.

Locomotive emissions report to industry in Sydney in 2012 by ENVIRON ¹⁰ stated:

- WHO (2012) classifies diesel exhaust as carcinogenic to humans.
- Coal wagons in Queensland are a source of coal dust
- Emissions from diesel-powered locomotives were concluded by previous studies to be significant anthropogenic source of PM10 and NOx.
- Australia has no air emission limits for new or re-manufactured locomotives. Nor are substantive programs addressing air emissions from in-service locomotives.
- Emission standards for locomotives were introduced by the US (1997), International Union of Railways (2002), EU (2004), and Turkey (2010). Standards were under development by Canada (2012).

¹⁰ http://www.ttgtransportationtechnology.com/sites/ttgtransportationtechnology.com/files/5-Locomotive%20Emissions%20Project%20_Industry%20Presentation_21%20Jun%202012%20Revision1.pdf



- The U.S. Clean Air Non-road Diesel Rule of 2004 required:
 - a reduction in sulphur levels for diesel fuels for locomotives to 500 ppm (effective June 2007)
 - sulphur content reduced to 15 ppm (ultra-low sulphur diesel) for locomotive fuels (effective June 2012)
- It is likely that Australian locomotives are running at pre Tier 0 standards.

US emission standards for railway locomotives apply to newly manufactured, as well as remanufactured railroad locomotives and locomotive engines. The standards have been adopted by the EPA in two regulatory actions:¹¹

- *Tier 0-2 standards:* The first emission regulation for railroad locomotives was adopted on 17 December 1997 [63 FR 18997-19084, 16 Apr 1998]. The rulemaking, which became effective from 2000, applies to locomotives originally manufactured from 1973, any time they are manufactured or remanufactured. Tier 0-2 standards are met through engine design methods, without the use of exhaust gas after-treatment.
- *Tier 3-4 standards:* A regulation signed on 14 March 2008 introduced more stringent emission requirements [73 FR 88 25098-25352, 6 May 2008]. Tier 3 standards, to be met by engine design methods, become effective from 2011/12. Tier 4 standards, which are expected to require exhaust gas after-treatment technologies, become effective from 2015. The 2008 regulation also includes more stringent emission standards for remanufactured Tier 0-2 locomotives.

¹¹ <http://www.dieselnet.com/standards/us/loco.php>



Line-Haul Locomotive Emission Standards, g/bhp·hr

Tier	MY	Date	HC	CO	NOx	PM
Tier 0 ^a	1973–1992 ^c	2010 ^d	1.00	5.0	8.0	0.22
Tier 1 ^a	1993 ^c –2004	2010 ^d	0.55	2.2	7.4	0.22
Tier 2 ^a	2005–2011	2010 ^d	0.30	1.5	5.5	0.10 ^e
Tier 3 ^b	2012–2014	2012	0.30	1.5	5.5	0.10
Tier 4	2015 or later	2015	0.14 ^f	1.5	1.3 ^f	0.03

a – Tier 0–2 line-haul locomotives must also meet switch standards of the same tier.
 b – Tier 3 line-haul locomotives must also meet Tier 2 switch standards.
 c – 1993–2001 locomotive that were not equipped with an intake air coolant system are subject to Tier 0 rather than Tier 1 standards.
 d – As early as 2008 if approved engine upgrade kits become available.
 e – 0.20 g/bhp-hr until January 1, 2013 (with some exceptions).
 f – Manufacturers may elect to meet a combined NOx+HC standard of 1.4 g/bhp-hr.

The latest edition of the (peer reviewed) *Atmospheric Pollution Research* reports on particle pollution (PM10 and PM2.5) from coal trains.¹² In a residential part of Seattle PM2.5 concentrations (associated with the locomotives' diesel emissions) exceed the USEPA annual standard for PM2.5 and result in pollution levels comparable to Seattle's industrial areas.

Measurements demonstrated that rail traffic emits substantial quantities of diesel exhaust and that the PM2.5 concentrations are significantly enhanced for residents living close to the rail lines, the study concluded.

“Our measurements of PM2.5 show that living close to the rail lines significantly increases PM2.5 exposure. For the one month of measurements at the Seattle site, the average PM2.5 concentration was 6.8 µg/m3 higher near the rail lines compared to the average from several background locations. Because the excess PM2.5 exposure for residents living near the rail lines is likely to be linearly related to the diesel rail traffic density, a 50% increase in rail traffic may put these residents over the new U.S. National Ambient Air Quality Standards, an annual average of 12 µg/m3.”

Seattle exports less than 10 million tonnes of coal each year (like Brisbane). Newcastle will export 160 million tonnes this year. A proposed fourth coal terminal would increase that to 230 million tonnes per annum (Mtpa). Capacity at the coal port of Abbot Point is planned to grow to 250 Mtpa.

¹² **Diesel particulate matter emission factors and air quality implications from in-service rail in Washington State, USA** *Atmospheric Pollution Research* Volume 5, Issue 2 (April 2014), Daniel A. Jaffe, Greg Hof, Sofya Malashanka, Justin Putz, Jeffrey Thayer, Juliane L. Fry, Benjamin Ayres, Jeffrey R. Pierce Pages 344-351 Mackay Conservation Group



An audit prepared for the NSW Government reports that more than 50% of the state's locomotives are more than 23 years old and are either Tier 0 compliant or precede the off-road emissions standards entirely. Comparing their emissions to Tier 4 (the current standard), that means their PM10 emissions are either 20 or 30 times higher than a new locomotive that is Tier 4 compliant

We would expect that the locomotives hauling coal from the Galilee Basin would be required to meet Tier 4 standards if they are to mitigate hazardous emissions to world's best standard. Will that be the case?

Rail Noise:

Online video at <http://shelf3d.com/Details/irVgoR5EbbE>

Please view the online video "Aurizon shocking impact of the coal trains – footage from our bedroom window." Judging by the terrain and vegetation it appears to have been taken from a rural home approximately a 100 m or less from the existing north south line from Abbot Point to north of Moranbah in the Northern Bowen Basin. Whoever posted the video provided the following description:

Predominately taken from our bedroom window other areas being our veranda and carport. This has been sent to several Australian politicians including Campbell Newman, Jeff Seeney, Jarrod Bleijie, Scott Emerson, Andrew Powell, Andrew Cripps, Christine Milne, Larissa Waters and Bob Katter to name a few, it is time our politicians and Aurizon admit this is a festering cesspit and fix this ever increasing problem!. All those who are of the opinion put up with it the railway line was there before you, yes you are correct in your typical shallow way of thinking... Probably best not comment unless you have all the facts. These people are long term residents not just moved in last week. Look at this way, you buy your home beside a butcher shop and yes there is a bit of a smell and noise however it's bearable and you learn to live with it. After 15 years of living there, they turn around and upgrade the butcher shop into a fully functioning abattoir without any consideration to you. Do you think this would have a major impact on your quality of life with all of the excessive stench and noise through your house 24/7? Think about it! I would suggest all you narrow minded people do your research before ridiculing anyone, take a look at the Aurizon website it clearly outlines the massive changes taking place to accommodate the mining boom so in actual fact anyone who has lived along this corridor long term, a long time before any of these upgrades were even considered do have a right to complain, Aurizon are the ones changing their operations; upgrading infrastructure, new incredibly loud locomotives and increase in the number of trains. There is a massive amount of long term residents being affected.

The coal trains appear to be 2 km long with two diesel locomotives for each 50 coal wagons. They take around 1 min and 38 secs to pass.

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GVK Hancock representatives told the Moran family, the owners of the Double Dee grazing property near Clermont that up to 16 trains up to 4 km long would travel through their property each day 800m from their home i.e. on average one every 1.5 hours if GVK Hancock and Aurizon win preferred rail company status for the north south corridor to Abbot Point.¹³ That does not include traffic from other coal mining companies so the frequency of train traffic could be much shorter. The property will be cut into four parts by the two proposed rail corridors.

Any reasonable person would conclude that this volume and frequency of relentless coal rail traffic presents a noise pollution problem, loud and frequent enough to harm health. As this video is in the public domain and has been sent to all relevant politicians the onus is on the Coordinator-General and the Queensland government to show how this noise pollution problem would be solved satisfactorily before declaring the GBSDA.

Relying on current noise standards alone will not be sufficient as this operation will run 24/7 for up to 100 years if demand for coal dictates it. This prevention of noise pollution has to be upfront, and built into the design of the project e.g. the right equipment and rail route well away from sensitive receptors.

Road Safety

"We've been really pushing that any public roads should be overpasses and they came back and said 'that's not the standard in Australia'," she said.

"We said 'well, it's the 21st century, let's set a new standard, let's take some proactive action into preventing injury'. We're all involved in the rural fire brigade out here so when there is an accident the first people they call is the rural fire brigade, we're the closest, we're on hand... (we're) the ones that are going to be picking up our neighbours and the people we love off the road, off the front of trains."¹⁴

Shontae Moran, Double Dee grazing property 800m from the proposed rail corridors.

It is apparent that new Australian and Queensland standards for a variety of matters including road safety, noise from locomotives, air quality, protection of areas of high conservation values etc. are needed for such a large scale proposal.

The additional costs associated with appropriate new standards should not be an excuse for refusing to implement them.

Rail Corridors in Offset areas of High Conservation Values

¹³ <http://www.ruralweekly.com.au/news/set-a-new-standard/1905201/>

¹⁴ <http://www.ruralweekly.com.au/news/set-a-new-standard/1905201/>



The proposed rail corridors also pass through a number of properties with high environmental conservation values. These properties sit within areas zoned as environmental offset hubs by DEHP. Three hubs are affected.

As State Development Areas are lands set aside for necessary economic and social needs, why are parts of these environmental offset hubs within the draft Galilee Basin State Development Area? They are incompatible with such an industrial zoning area.

An environmental offset area to be viable and authentic, would need to be free of industrial activities such as a busy polluting coal haulage rail line, and preferably be further protected with an adequate surrounding buffer zone.

The environmental hubs within this SDA are only free of mining or other industrial impacts if they have a protection offset agreement or management plan over them. These agreements last only as long as the agreement and thus are not permanently protected. Permanent protection is necessary if such conservation areas are to have a chance of maintaining environmental values and avoid a net loss of these values.

How is this to be achieved if they lose protection after the original offset agreement expires? They cannot be used a second time as an offset for further environmental loss elsewhere as that would be “double dipping” i.e. protection of one area for the loss of more than one area of high conservation value. That would not meet the meaning and object of having offsets in the first place. It certainly would not meet world’s best practice requirements for offsets.

Strategic Cropping Land

The proposed GBSDA and GBSDA rail corridors contains areas which are triggers for Strategic Cropping Land (Fig. 5). There are Class A (cropping) and Class B (grazing) lands within the GBSDA that would be incompatible with an intensively used rail corridor because of the difficulty of maintaining agricultural operations, the air pollution, and loss of reasonable operations connectivity to run agricultural and other operations.

Agriculture, especially at Eurie north of Merinda, will be severely impacted with the proposed North South rail covering the entire area.

How will those affected land owners be compensated?



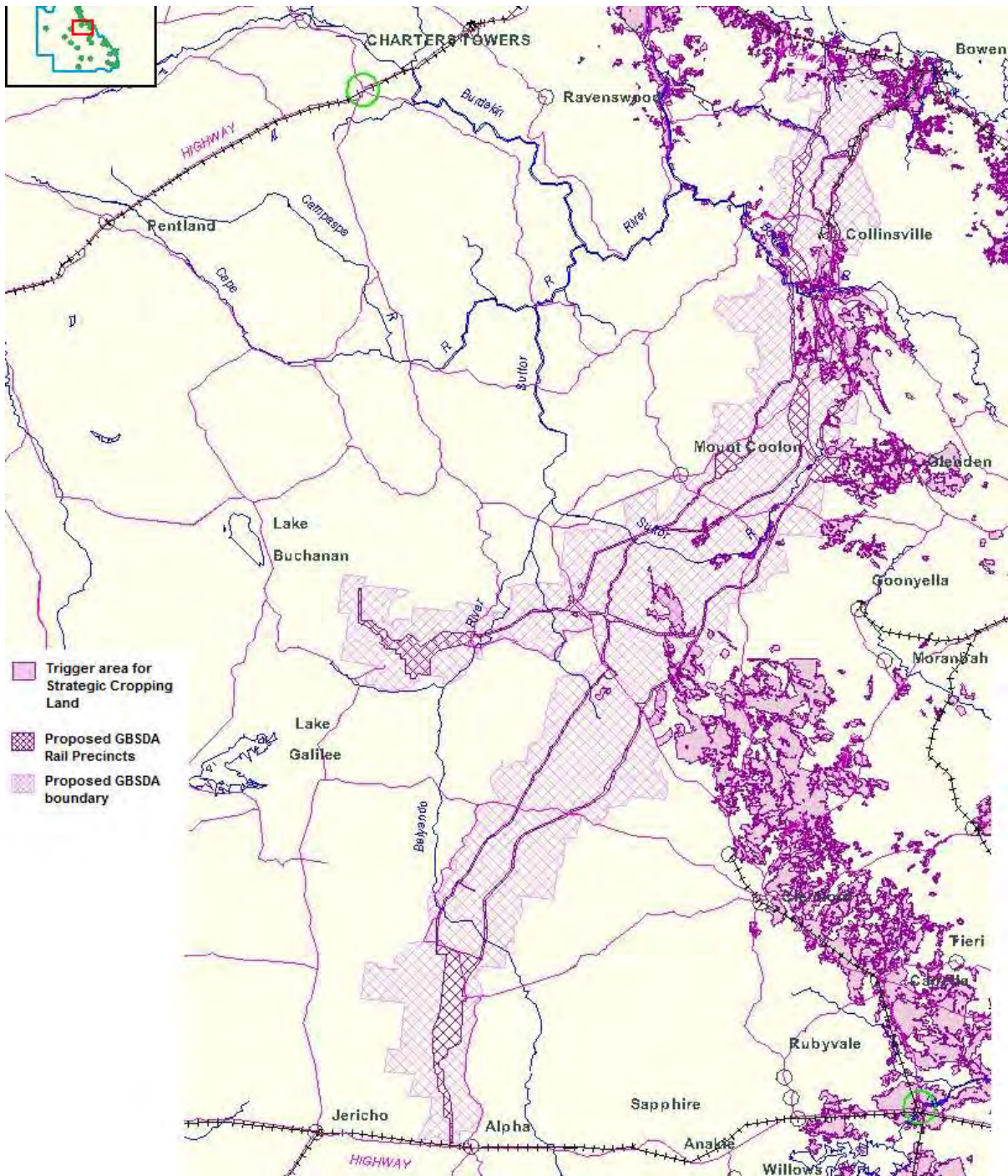


Fig. 5 Trigger areas for Strategic Cropping Land within the GBSDA.



Flood Plains

Flooding	
5.	Development is to demonstrate through appropriate flood modelling that appropriate levels of flood immunity can be achieved while avoiding alterations to existing flow rates, flood heights or other flooding impacts on upstream, downstream, or adjacent properties. This includes potential impacts from changes to stormwater flows and local flooding.

Given the strong opposition by land owners with long-term knowledge of the local environment to the proposed rail corridor routes it does not appear appropriate levels of flood immunity can be achieved without significant adverse impacts on the region's grazing industry.

"I don't think it's got anything to do with the long term development of the state because if you were looking for the long term development of the state you would put the railway line in a position where it's not going to continually get washed out."¹⁵

Shontae Moran, Double Dee property owner, whose property has been affected by four coal rail proposals in the draft GBSDA

...

Tricia Dennis, whose husband's family have lived in the region for 120 years, says the Adani Group's proposed east-west line runs through a massive flood plain linked to the Belyando River and Mistake Creek.¹⁶

...

The state's peak farming group Agforce says it will affect the flow of water and impact on a key cattle grazing region where tens of thousands of cattle feed each year.

"It is some of Queensland's best cattle grazing country where cattle are fattened before being taken to the slaughterhouse," Agforce and local farmer Peter Anderson said.

The 495km railway will cross the Belyando, Suttor and Mistake Creek flood plains.

"It will alter the flow of water, and if water stays too long in one area it will kill the grass, and if it moves too fast it will cause erosion."¹⁷

The draft GBSDA passes through some major flood plains. The middle third of this SDA contains a major flood plain of the Suttor River where fattening cattle on rich grasslands

¹⁵ <http://www.abc.net.au/local/stories/2013/08/12/3823724.htm>

¹⁶ <http://www.railpage.com.au/news/topic-20/15/>

¹⁷ <http://www.railpage.com.au/news/s/rinehart-railway-to-hurt-farmers-agforce>



that grow following flooding is very economically important for the grazing industry in the region.

Affected graziers have met frequently with the former and present Queensland government ministers and Coordinator General and his staff to point out that the proposed route for the greenfield coal rail line from the Galilee Basin should avoid the major flood plains, and take a better alternate route farther to the northwest. This would avoid frequent expensive damage and delays to coal rail traffic during major floods, predicted to grow more frequent as climate change proceeds, and maintain the current rainfall runoff contours and spread and depth of flooding to maintain best conditions for raising feed for cattle.

In places the embankment for rail line proposals through the Thurso property would be as high as 10 metres in a floodplain. That will affect adversely flood flow depths and distributions that owners say will cause changes that will affect the profitability of their operations and the feasibility of running the grazing property.

No reason has been given by the government for maintaining the current corridor routes. As the economic threat to the agricultural sector within the draft GBSDA is substantial a reason or reasons for avoiding the better route should be given. We looked at the location of this SDA in relation to the coal exploration tenures and can only conclude that the current proposed SDA area was chosen to minimise extinguishing any potential and existing coal mining tenures. This could possibly be justified if coal mining was more lucrative for the state government than agriculture but this is unlikely to be the case over the long-term.

The stated intent of establishing the GBSDA is for long-term as well as short-term benefits. In that case agriculture will be of far more long-term benefits than coal exports, and it should receive priority consideration.

Stranded Assets

Coal demand in China, the world's largest user of coal and the chief importer of Australian coal, is predicted to peak in 2020 and then decline. China is also building more coal mines seeking to decrease its reliance on imported coal.¹⁸

In non-boom times agriculture has produced as much revenue as coal in Queensland and is a more sustainable industry than coal being longer-lived. The State risks focusing on an industry that will shortly decline and risks allowing stranded assets to be built rather than planning for the next boom i.e. increased food demand from Asia.

Since the beginning of the mining boom, Australia's rural sector has lost \$43.5 billion in export income. This includes \$14.9 billion in 2010-11 alone. These losses have occurred

¹⁸ Nicholas Stern on Lateline at <http://www.abc.net.au/lateline/content/2014/s3973194.htm>



because the mining boom forced the Australian dollar to historic highs. The beef industry took a \$2 billion dollar hit last year alone.

Richard Denniss Australia Institute 2013¹⁹

Mining returns around \$12 billion to government coffers, minus \$5 billion in subsidies, netting \$7 billion, whilst it vacuums up investment capital, skilled workers, and resources which could be deployed elsewhere.²⁰ Climate costs to Australian infrastructure alone will be \$9 billion annually by 2020.²¹

So costs to Australia from the export of coal which when burned contributes to climate change will outweigh income from coal exports by \$2 billion annually. This a net loss to the economy.

An independent full cost/benefit analysis of the true net benefit of coal versus alternative economic sectors needs to be undertaken to demonstrate if the Galilee Basin coal mining and supporting GBSDA rail infrastructure is truly in the public interest. This should include the pollution and health impacts of coal, losses of sterilised mined lands to other uses such as agriculture, direct and indirect subsidies to the coal industry etc. Given the enormous scale of mining envisaged and how that will affect agriculture, both sectors cannot co-exist.

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¹⁹ <https://theconversation.com/limiting-australias-ballooning-coal-exports-is-good-for-the-economy-11828>

²⁰ Ibid. George Takacs, Physicist

²¹ Ross Garnaut, Climate Change Review

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