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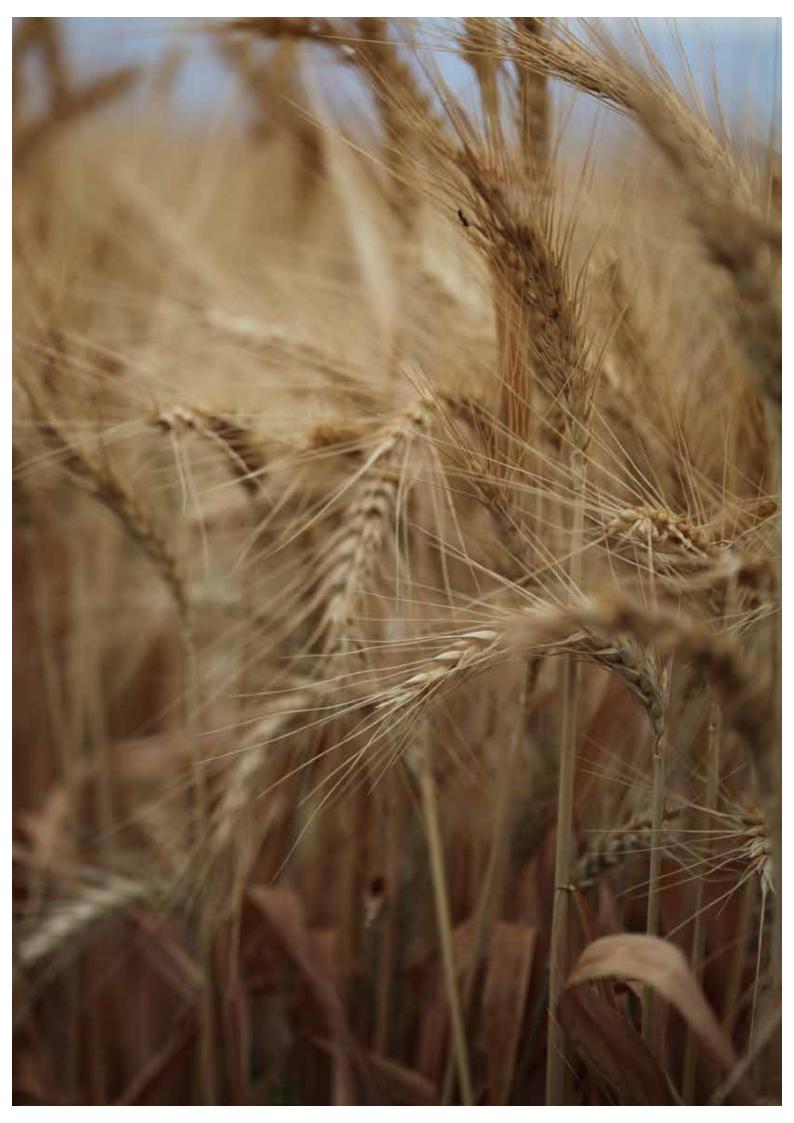
Richard's expertise includes operational management of large dams, including water supply and flood mitigation, and in environmental, economic and water related studies using computer modelling of river and storage salinities, and of water resource systems containing dams, hydroelectric works, rivers, and riparian ecosystems.

Full review available here: http://www.lockthegate.org.au/railroaded\_review Thanks to Paula Heelan, Erland Howland, Tom Jefferson/Greenpeace for use of Central Queensland images.

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Front cover: Top Image: Paula Heelan Middle Image: Lee Hansen Bottom Image: Stock image; Inside cover: Top Image: Paula Heelan Middle Image: Paula Heelan Bottom Image: Paula Heelan



# **Executive Summary**

This report examines one cluster of large-scale rail projects in Central Queensland, proposed to facilitate the shipment of coal from mining in the Galilee Basin, and the damage it threatens to inflict on land and water across productive agricultural landscapes and floodplains.

There are five rail lines currently proposed to export coal from the region which encompass over 1400 km of new and upgraded rail infrastructure and directly affect over 120 landholdings. They have the potential to interact and produce significant cumulative impacts, particularly in respect to elevated flood impacts, loss of agricultural productivity and fragmentation of agricultural land.

Whilst it has been suggested that only one or two rail lines may eventually be built, two have already been approved and two more are currently seeking an approval. Therefore, the ultimate configuration and the resultant impacts are still extremely uncertain, and that uncertainty itself is causing disruption and stress for landholders and communities.

The Qld Government has developed a plan to facilitate and promote railway development for coal mining in the region - the Galilee Basin State Development Area (GBSDA).

The SDA is part of a broader Galilee Basin Development Strategy, which proposes a range of measures including discounted water licences and discounted royalty payments for mine proponents, and the provision of water to coal miners from the State reserve.

## Galilee Basin State Development Area (GBSDA)

The proposed State Development Area will give the Queensland Coordinator-General the power to compulsorily acquire any land for railway development across an area greater than 2 million hectares in size.

Central Queensland currently produces 9.5% of Queensland's agricultural production and contains a number of the State's largest floodplains. The proposed GBSDA includes some of the State's most productive agricultural land.

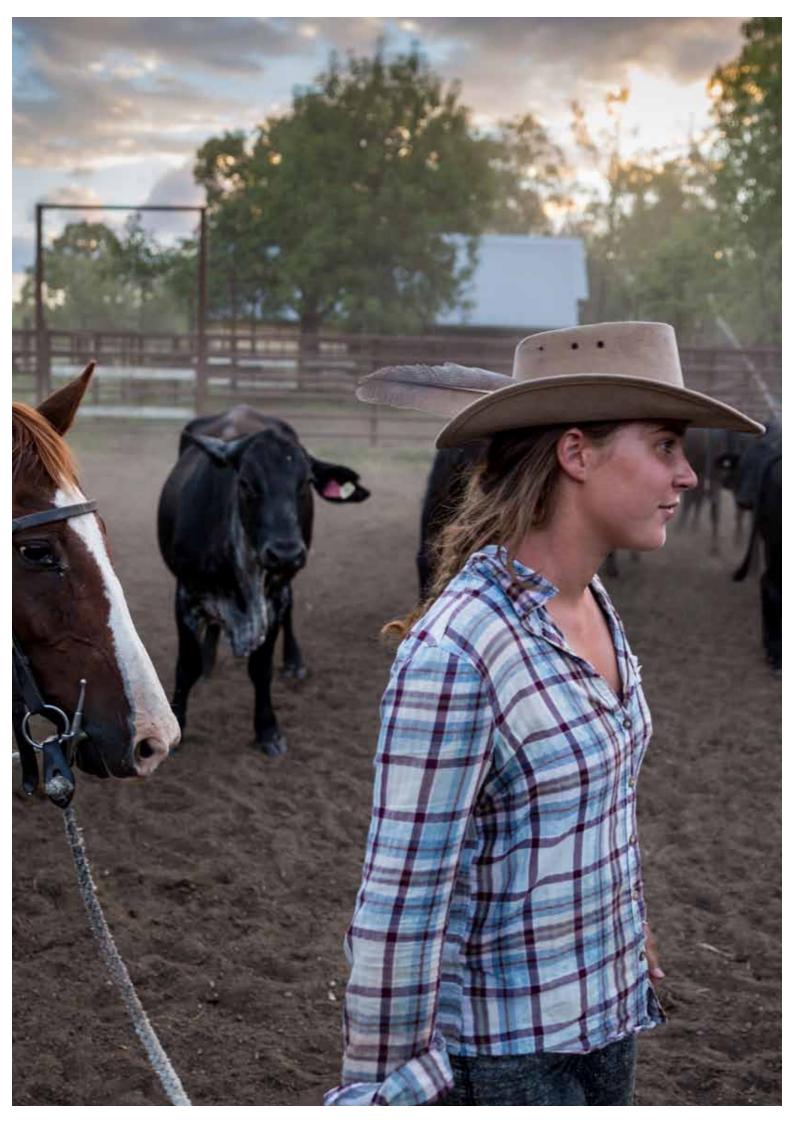
Under the terms of the State Development Area scheme the Coordinator-General will not support land uses anywhere in the 2M hectare area that are not consistent with rail infrastructure, and landholders may have to apply for permission to continue using the land as they are currently doing.

Although cropping and animal husbandry are listed by the scheme as activities that "may be consistent," with the railways, farmers may have to pay a fee to apply to continue farming. The Coordinator General has the power to refuse the application with no right of appeal.

Above and beyond this concern, is the abiding risk that farmers will be forced into compulsory acquisition and land will be forcibly removed from them by the Government with no requirement for good faith negotiation.

The weight of uncertainty alone for these landowners within the GBSDA is enough to drive down land prices and chill beneficial agricultural productivity, let alone expansion. A similar SDA scheme for a coal rail line in the Surat Basin resulted in a reported 30% loss in land values.

Image Page 5: Paula Heelan



#### **GBSDA Precincts**

There are three precincts proposed within the GBSDA, which map out the areas or corridors most likely to be directly impacted by rail infrastructure. There is a precinct for Mining Services, a West to East Rail Corridor and a South to North Rail Corridor.

The precincts intersect 933 different land parcels, and thus represent a major source of uncertainty to a large number of landholders. The precincts cover almost 200,000 hectares of pasture and over 50,000 hectares of potential cropping and horticultural land. They also include over 11,000 hectares of the Bowen Important Agricultural Area.

That means that large areas of vital food-producing land are likely to be directly alienated or fragmented, as a result of the GBSDA, with subsequent impacts on food production targets for Queensland.

The Queensland Government has set an ambitious target to double food production by 2040. However, this commitment is unlikely to ever be met if agricultural land is lost and fragmented due to coal mines and associated rail infrastructure.

## Flood Risks and Implications

There are very substantial flood risks associated with the GBSDA, because the construction of large, elevated rail infrastructure across major floodplains and waterways will substantially change surface water flows and lead to altered flood patterns.

The region is highly flood prone. Since 1906, there have been 57 tropical cyclones that have passed within 200 km of the GBSDA and over 500,000 hectares of the GBSDA regularly experiences flooding. The proposed GBSDA precincts cut across 1,680 waterways between the Galilee Basin and Abbot Point.

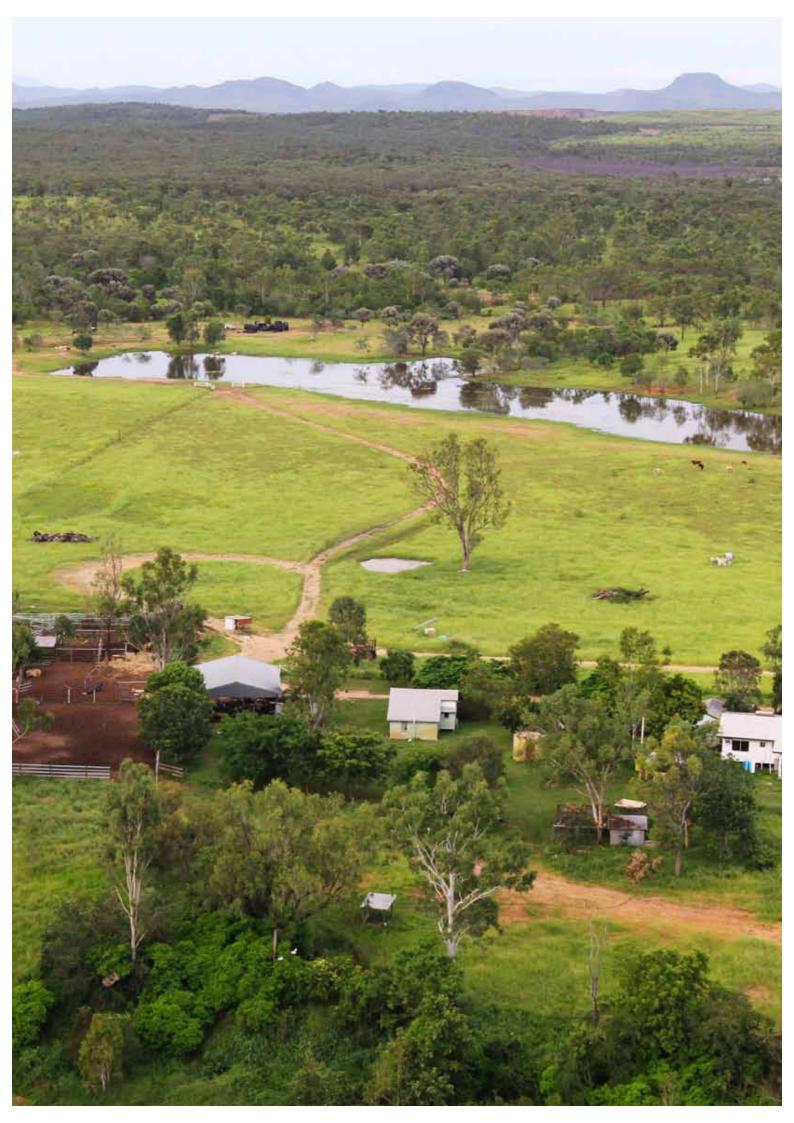
The extent of the floodplain likely to be traversed by rail lines, the density of the drainage and the cyclone frequency in the region, all point to very high flood risks. Therefore, planning for the rail lines should have prioritised precautionary flood avoidance and flood mitigation.

However, none of the rail projects proposed for the GBSDA comply with Queensland State Planning Policy 1/03 'Mitigating the Adverse Impacts of Flood, Bushfire and Landslide' or the most recent Australian Rainfall and Runoff Revision for Blockage of Hydraulic Structures by Engineers Australia.

Instead, proponents have been allowed to minimise costs by proposing to build structures that are only designed for 1 in 20 year or 1 in 50 year flood events, instead of the larger floods that represent the greatest risks.

In fact, the drainage structures that have been approved for one rail proposal are so poorly designed that they are rated as having an 84% chance of failure over their life. Such negligent cost avoidance puts at risk the communities of the region, its infrastructure and agricultural productivity.

Image Page 6: ©TomJefferson/Greenpeace



# The Regional Planning Interests Act

The new Queensland Regional Planning Interests Act, which was passed recently, weakens the previous protections provided for agricultural land via the Strategic Cropping Land Act, which is set to be repealed. The Regional Planning Interests Act 2014 does not place any prohibitions on mining in agricultural areas and it does not require an Agricultural Impact Assessment prior to granting Regional Planning Interest Authorities.

Despite the GBSDA precincts taking in over 50,000 ha of potential cropping land, the out-dated regional plan that covers the GBSDA area does not identify any 'Priority Agricultural Areas'. Therefore, even the weak measures that apply in the RPI Act for such areas do not apply in this instance.

#### Conclusion

The new rail projects proposed for the GBSDA will reduce the area of available high quality farmland in Central Queensland, fragment the agricultural landscape in the region and create significant additional flood impacts for the local communities and agricultural industries. As a result, the contribution to the State's agricultural production is predicted to decline.

The continued imbalance in the Government's policy approach, which privileges damaging mining activity and its infrastructure needs over other, long-established land uses in rural Central Queensland is leading to the irreversible loss of good quality land, and jeopardising the food producing future of the state.

Without clear and unambiguous statutory protection, agricultural lands and critical water resources that underpin them will continue to be lost to coal mining and its associated infrastructure and the chronic decline of agricultural productivity in Queensland will continue.



Image Page 8: Cattle © 2014 Erland Howden; Image Page 9: Paula Heelan