

Submission
No 574

INQUIRY INTO COAL SEAM GAS

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**SUBMISSION TO THE LEGISLATIVE COUNCIL
PARLIAMENTARY INQUIRY INTO COAL SEAM GAS**

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KEY POINTS:

- The proposed Casino-Ipswich gas pipeline is likely to have significant cumulative negative impacts on threatened species, biodiversity and other natural values of the nationally recognised Border Ranges Biodiversity Hotspot through which it would pass.
- Construction of the pipeline is likely to result in sedimentation of pristine waterways in the region, on-farm erosion and a reduction in property values for landholders.
- There has been no detail or description, or any form of government assessment or approval, of any area of gas production that would supply the pipeline.
- The construction of the pipeline in the steep terrain of the Border Ranges is likely to have significant impacts on the community built Lions Road, including landslides, slippages, and erosion.

RECOMMENDATIONS:

- The Casino-Ipswich pipeline is an entirely inappropriate development for the outstanding protected areas through which it would pass. I call on the state government to reject this pipeline as there are likely to be significant negative impacts on natural areas, waterways, farmland and existing infrastructure from pipeline construction and operation, and as it is highly irregular that there has been no assessment or approval of any gas field associated with it.

Introduction

I live in Kyogle Shire in the Northern Rivers region of New South Wales and am a member of Group Against Gas Kyogle. The opinions expressed in this submission are my own, not those of the group. At present, almost the entire Northern Rivers region is covered by petroleum exploration licenses (figure one) and exploration activities are taking place across the region. Approval has been granted for construction of a 30MW gas-fired power plant at Casino (Richmond Valley Power Station) and a 40-55 well gas field to supply the power station (Casino Gas Project). Gas company Metgasco is also currently undertaking the approval process for a proposed 145-kilometre gas transmission pipeline between Casino and Ipswich. The impacts of this pipeline are the focus of my submission.

The Casino-Ipswich high-pressure gas transmission pipeline has been proposed by the gas company Metgasco to transport gas 145km between Casino and Ipswich¹, to supply gas from the Northern Rivers to the southeast Queensland market. The size of the pipeline is not confirmed in the initial project report and given that Metgasco is also looking into the feasibility of supplying gas to an export facility at either Brisbane or Gladstone² (or the North Coast of NSW) I believe that this pipeline could also be used to transport gas for export. In NSW the pipeline would pass from the Casino area and on through the township of Kyogle and then traverse cropping and grazing land in the Richmond, Lynches Creek and adjacent valleys. It would then follow the Lions Road through the Border Ranges National Park and continue on through the Scenic Rim district and Logan River valley in Queensland.

¹ Preliminary Environmental Assessment: Casino-Ipswich Gas Transmission Pipeline

² Metgasco Quarterly Report July 2011

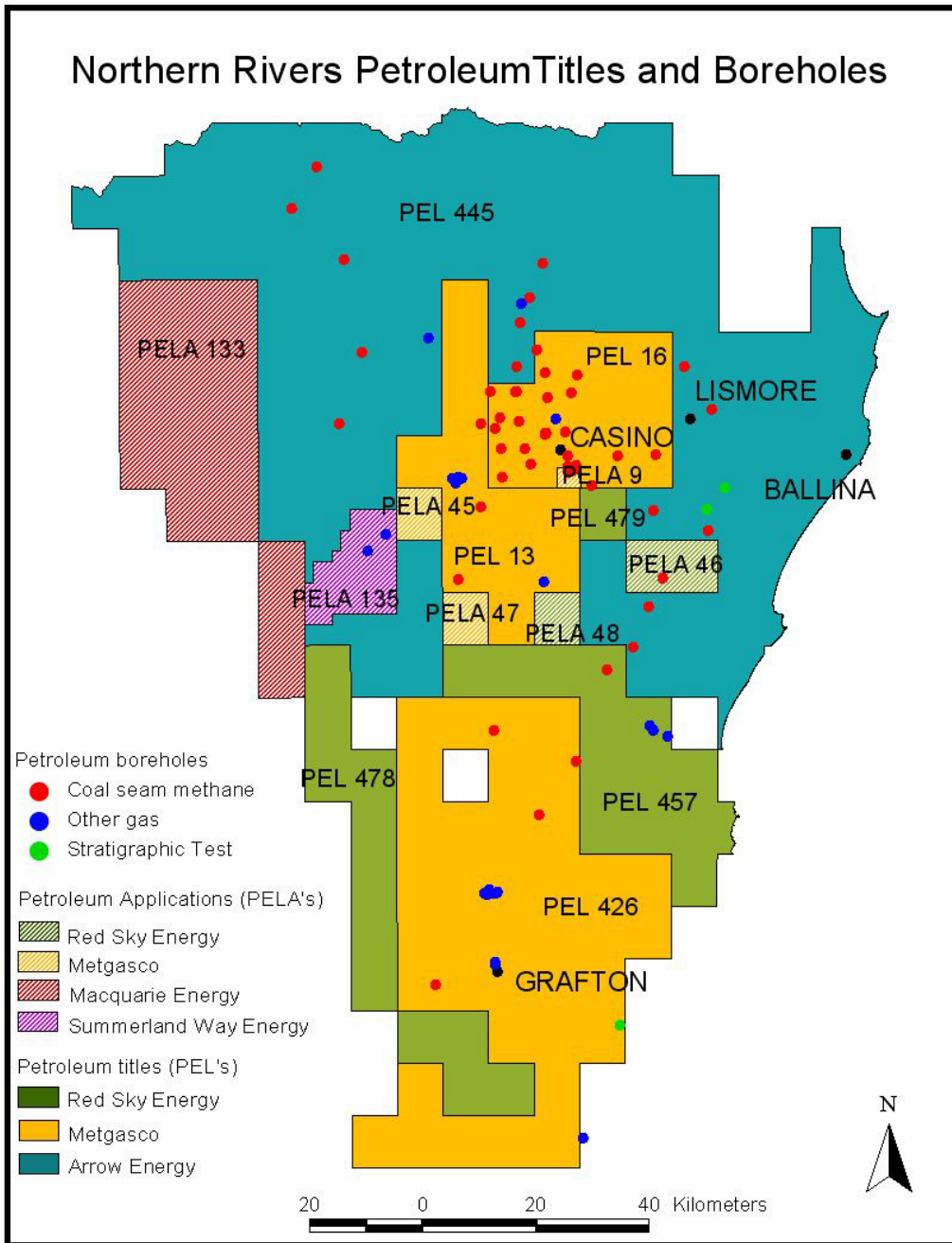


Figure One: Northern Rivers Petroleum Titles and Boreholes

The environmental and health impacts of CSG activities

Impacts on conservation lands and biodiversity

One of the significant concerns that I, and others in the local community, have about the proposed pipeline is that it would pass through the World Heritage Listed Border Ranges National Park. The initial project report for the proposed pipeline maintains

that the project “Avoids direct impacts to the World Heritage listed Border Ranges National Park by adopting the [gazetted] Lions Road to cross the ranges,” thereby “avoiding direct impacts to the National Park and World Heritage values.”³ It also states that there will be “no clearing of vegetation or destruction of fauna habitat in the World Heritage area of the Border ranges”. The project report suggests that the pipeline would be laid underneath the Lions Road in this section of the National Park, however there is little detail explaining exactly how construction would be carried out so as to avoid any impacts on the National Park. Given this lack of detail, I have grave concerns for the impacts this project could have on the significant natural values of this region.

In the section that passes through the National Park, the Lions Road is very steep and narrow, with thick vegetation coming right to the edge of the road (figure 2). As I see it, whatever option the proponent undertakes to construct a pipeline in this extremely sensitive area will have serious consequences. If the pipeline is placed in a trench up the middle of the road then there are likely to be erosion impacts on the adjacent World Heritage listed National Park, particularly when crossing gullies and streams. If vegetation within the road reserve is cleared to enable pipeline construction, then the adjacent rainforest vegetation will be impacted as the road reserve vegetation acts as a buffer to the National Park.

³ Preliminary Environmental Assessment: Casino-Ipswich Gas Transmission Pipeline



Figure 2: Lions Road in the Border Ranges National Park

In my activities with Group Against Gas Kyogle I obtained expert scientific advice⁴ that suggests there would be a range of significant direct and indirect impacts on the National Park during pipeline construction (the full advice received from ecologist Mark Graham accompanies this submission). Placement of the gas pipeline underneath the Lions Road would require extensive excavation and exposure of soils including topsoil, subsoils and mineral components. The Border Ranges area experiences very high annual rainfall as well as massive rainfall events that can exceed 500mm of rainfall in a 24 hour period and the Lions Road is often closed due to landslips (figure 3). There is nothing to prevent sediment migration from construction sites under these conditions which would result in degradation of aquatic habitats within the National Park⁵, leading to:

- “Loss of native species
- Changes in catchment function and hydrology
- Pollution of water
- Increased likelihood of exotic species invading the national Park”

⁴ Graham, M. 2011, **‘IMPACTS OF THE PROPOSED CASINO TO IPSWICH GAS PIPELINE ON THE WORLD HERITAGE VALUES OF THE BORDER RANGES NATIONAL PARK’**

⁵ Ibid



Figure 3: Landslip on the Lions Road

Whilst the proponent says that no vegetation in the National Park will be cleared it is difficult to see how such a large scale project could be carried out without clearing of some vegetation, for trenching activities as well as ancillary infrastructure including valves, maintenance access points and pressure maintenance facilities. In addition, if vegetation is cleared in the road reserve adjacent to the National Park, there will be flow on effects in the protected area as the road reserve acts as a buffer to the Park. Any clearing of native vegetation in the area will have a significant cumulative effect⁶, resulting in:

- “Loss of native species;
- Degradation of adjoining native vegetation;
- A wide range of edge effects including increased desiccation, greater light penetration, weed invasion, invasion of vertebrate pest species and changes in faunal assemblages;
- Changes in ecology including changes in fauna populations;
- Changes in catchment dynamics, hydrology and fire susceptibility.”

⁶ Graham, M. 2011, ‘**IMPACTS OF THE PROPOSED CASINO TO IPSWICH GAS PIPELINE ON THE WORLD HERITAGE VALUES OF THE BORDER RANGES NATIONAL PARK**’

The project report for the proposal says that the pipeline will be placed underneath the road for just the 4.5 km that intersects the National Park. Outside this section of the pipeline there is a significant amount of native vegetation on private land that would be cleared to a width of 30 metres for pipeline construction, which would have similarly deleterious effects on the National Park as all of this area acts as a buffer zone to the National Park that it is contiguous with.

Some of the other likely impacts on the Border Ranges National Park detailed in the expert advice that would occur during the construction phase include:

- Ecosystem degradation and weed invasion within the National Park including increased threats from Bell Miner dieback and Myrtle Rust to the rainforest vegetation;
- Increased fire risk in the very fire prone dry rainforest vegetation that occurs in the vicinity of the Lions Road;
- Disturbance of fauna populations (including a number of listed threatened species) as a result of acoustic disturbances from heavy machinery, excavation machinery, power tools and gas infrastructure; pollution disturbances generated from machinery emissions and spillages and vibrational impacts from heavy machinery;
- Increased populations of vertebrate pest species such as foxes and cats along the pipeline disturbance corridor.

The ongoing impacts that would occur during the operation of the pipeline include:

- Hydrocarbon pollution of the Border Ranges World Heritage Area from possible gas leakages along the pipeline;

- Elevated risk of bushfire in the Border Ranges National Park as a result of numerous ignition sources during operation including heavy machinery used for maintenance activities as well as maintenance tools and gas;
- Increased populations of vertebrate pest species

The areas of intact native vegetation with a grassy understorey adjacent to the Lions Road are known habitat for the critically endangered Eastern Bristlebird (*Dasyornis brachypterus*) and the endangered Hastings River Mouse (*Pseudomys oralis*)⁷. The degradation of this habitat and increased fire threat in the area is of particular concern for the long-term survival of these threatened species.

Whilst any negative impacts on National Parks from developments are of great concern in and of themselves, the impacts of the proposed pipeline on the Border Ranges National Park are of particular significance as this Park is part of the nationally recognised Border Ranges North and South (Queensland and New South Wales) Biodiversity Hotspot. In addition, the Lions Road is one of the narrowest areas of native vegetation remaining along the east-west forested corridor of the McPherson Range and therefore any impacts in such a narrow component of this internationally significant corridor are likely to have a disproportionately large impact⁸.

In 2010 the NSW environment department, in partnership with the Queensland and Commonwealth government departments and catchment management authorities, published the “Border Ranges Rainforest Biodiversity Management Plan” (BRRBMP), a comprehensive document that details the special values of this region and the “conservation requirements of rainforest and closely related species and

⁷ Graham, M. 2011, ‘**IMPACTS OF THE PROPOSED CASINO TO IPSWICH GAS PIPELINE ON THE WORLD HERITAGE VALUES OF THE BORDER RANGES NATIONAL PARK**’

⁸ Graham, M. 2011, ‘**IMPACTS OF THE PROPOSED CASINO TO IPSWICH GAS PIPELINE ON THE WORLD HERITAGE VALUES OF THE BORDER RANGES NATIONAL PARK**’

communities in the Border Ranges region”⁹. This Plan “identifies the actions to be taken to ensure the long-term viability of the threatened species and other biodiversity assets of the rainforest and related vegetation of the Border Ranges region. Actions include working with landowners to restore and protect identified priority areas, including vegetation corridors for the movement and dispersal of species. There is also an emphasis on landowners and agencies working together to help manage the impacts of weeds and feral pests, as well as fire management.” Further to this, the “the objective of this Plan is to protect rainforest and related biodiversity and to provide a consistent and effective recovery program for species and communities of conservation concern. The recovery program will focus on improving the condition (connectivity and integrity) of rainforest and related vegetation communities and their component species and systems.”

The Plan identifies four fundamental stresses on biodiversity that threaten biodiversity loss, which are: habitat loss; habitat modification; loss of individuals; and loss of genetic integrity. The Plan then goes on to list a considerable number of key threatening processes and activities that are the mechanisms that lead to these stresses on biodiversity. The construction of the proposed gas pipeline through the Border Ranges Biodiversity Hotspot would lead to nearly all of the key threatening processes detailed in the Plan, including:

- Habitat loss and degradation
- Bell-miner associated dieback
- Inappropriate fire regimes
- Competition and predation from feral pests
- Invasion of weed species
- Infection of native populations with pathogens and disease
- Degradation and alteration of aquatic habitats

⁹ NSW DECCW 2010, “Border Ranges Rainforest Biodiversity Management Plan”

In addition, the Lions Road area can be recognized as a critical area for protection under the Plan for a number of reasons. The Plan recognizes critical climate change linkages and corridors, of which the Lions Road area constitutes an important buffer area (figure 4). The dry rainforest in the area of the Lions Road is recognized as being under particular threat from fire by the Plan, and it also recognizes the importance of the protection, restoration and long-term monitoring of habitat for Tumbunan fauna, some of which are amongst the species that have been recorded in the vicinity of the Lions Road.

Given the threats that it constitutes to the biodiversity of the Border Ranges area, and in view of the fact that the NSW government has committed to protecting and enhancing the biodiversity of the region in its Biodiversity Management Plan, the construction of a major infrastructure gas pipeline within the Biodiversity Hotspot area is clearly entirely inappropriate and completely unacceptable. The commitments the state government agencies make in the Biodiversity Management Plan¹⁰ include:

- to protect rainforest and related vegetation from fragmentation, modification and degradation
- limiting the spread of invading pest animals
- minimising the effects of Bell Miner associated dieback on rainforest and associated wet sclerophyll forest
- minimising the impacts of human interference, in particular, impacts of road, track and utility corridor construction
- reducing human-induced mortality of priority fauna
- controlling and minimising impacts of introduced pathogens and diseases
- to maintain the viability and evolutionary potential

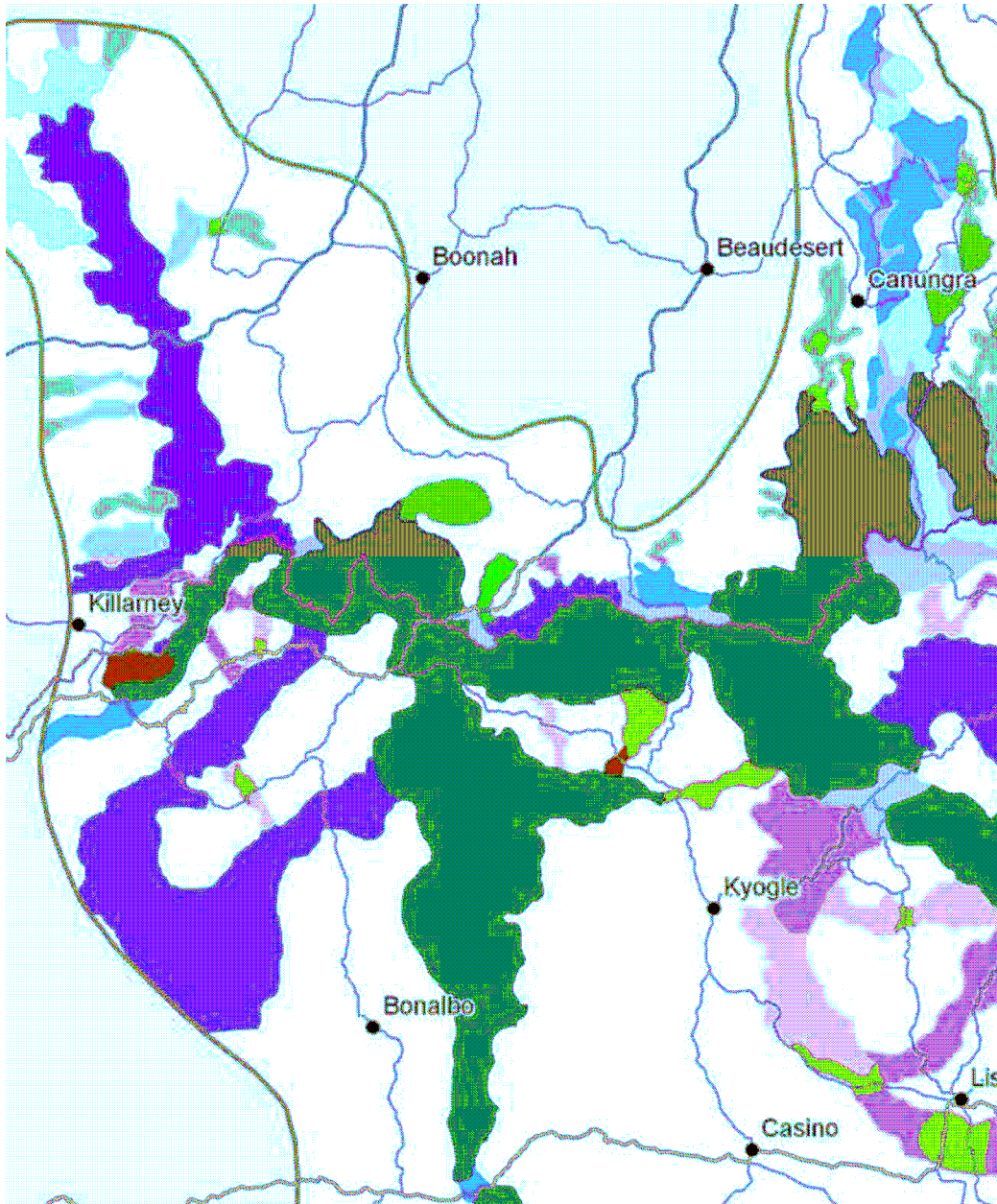
¹⁰ NSW DECCW 2010, "Border Ranges Rainforest Biodiversity Management Plan"

of rainforest and related populations, species and communities

I call on the state government to honour its commitment to the objectives of the Border Ranges Biodiversity Hotspot Biodiversity Management Plan by rejecting the Casino-Ipswich gas pipeline proposal.

Impacts on waterways and agricultural land

Landholders whose land lies on or adjacent to the proposed pipeline route are concerned about a range of likely impacts from the construction of the pipeline on their land, water and property values. The waters in the region between Kyogle and the Border Ranges contains some of the highest quality water in the state, and pipeline construction is likely to result in a reduction in water quality in these creeks due to sedimentation and erosion and clearing of riparian vegetation where the pipeline crosses creeks and follows the creek line. There are a large number of creek and river crossings planned for the proposed route, and sedimentation and erosion would occur both during construction, and throughout the frequent flood events that occur in the region. The possible impacts on farmland include soil erosion and compaction during construction, degradation of access roads during construction and maintenance, disruption of on-farm activities and reduction in property values along the pipeline route.



Legend

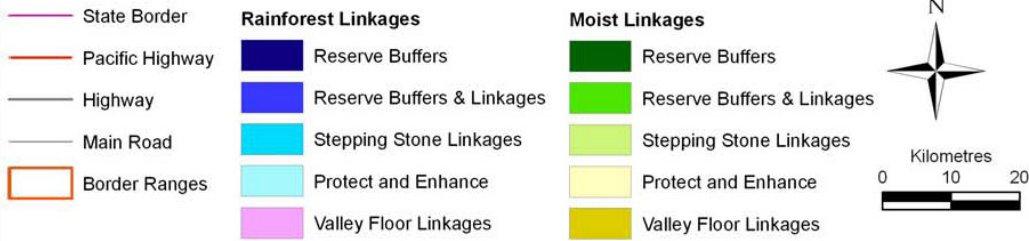


Figure four: Climate change linkages from NSW DECCW 2010, "Border Ranges Rainforest Biodiversity Management Plan"

The other major concern I, and other landholders in the Kyogle region have, is that the construction of this pipeline opens up the region to a massive expansion in coal seam gas production- indeed one of the stated aims of the pipeline project is to “*encourage development of further gas fields in NSW*”¹¹. This is a cause for great concern as it would have all the associated impacts on the environment, health and local communities that are detailed in the Group Against Gas (GAG) Kyogle submission to this Inquiry. There is such a high level of concern about this prospect that significant numbers of landholders along the pipeline route have indicated their intention to refuse any access onto their property for gas production or associated infrastructure such as the proposed pipeline.

The project report for the proposed pipeline does not stipulate the size of the pipe that will be used for this particular project, stating: “The pipe diameter has not as yet been determined and would be based on market demand”¹². This seems to leave open the possibility that this pipeline could be used for transmission of gas to an export facility at an as yet undisclosed Queensland port. Metgasco has completed feasibility studies into a possible 1.5 million tonne per annum LNG export facility at Gladstone, Brisbane or on the NSW North Coast which would require a supply approximately 90PJ of gas per annum. Based on the figures given by Metgasco detailing the number of gas wells needed to supply the 2.3PJ of gas required for the approved domestic power station (40 CSG wells and/or 15 ‘conventional’ gas wells), I estimate that in excess of 1500 wells would be needed to supply the 90PJ required for the export facility that Metgasco is investigating. The company has not revealed where the gas field that would supply this export facility, or indeed this pipeline, would be coming from- simply that it would be supplied from the Northern Rivers region. I believe that it is highly irregular that Metgasco is seeking approval for a gas transmission

¹¹ Metgasco 2007, Preliminary Environmental Assessment: Casino-Ipswich Gas Transmission Pipeline

¹² Ibid

pipeline, when the gas field that would supply such a pipeline has not been detailed and quantified, or undergone an appropriate assessment and approval process. It would be wrong for the state government to approve this project when there has been no gas field assessed or approved to supply the pipeline. **In light of this irregularity, I call on the state government to reject the Casino-Ipswich gas transmission pipeline proposal.**

The economic and social implications of CSG activities

The Lions Road is a world class scenic route that was built in the early nineteen seventies as a community development project instigated by the Beaudesert and Kyogle Lions Clubs when governments refused to invest in a direct route from the Kyogle district to Brisbane¹³. This iconic road was constructed entirely from volunteer labour, borrowed equipment and financed with small grants and donations from Lions Club members and the public¹⁴. The book 'The Lions Road' details the story of the remarkable community effort to build a road linking NSW to Queensland via the Richmond (or Grady's) Gap. This story gives some insight into the difficulty that will be encountered during pipeline construction if the Lions Way pipeline goes ahead.

The Lions Road is prone to slippages and landslides due to the steepness of the terrain and the heavy rains that the area experiences and is often closed to traffic for long periods for repair. These problems are likely to be exacerbated by the installation of the pipeline, as are the ongoing erosion impacts on the road itself. Some of the other issues with putting a pipeline through the area would be the need to dig up the road in the National Park section which would lead to extended road closures, the necessity of blasting sections of the pipeline trench in rocky areas which could damage the road, and the high number of creek and gully crossings required. The heavy machinery used for pipeline trenching and pipe transport is also

¹³ Big Volcano (Wollumbin) Visitor Guide 2011, 'The Lions Road Scenic Link'

¹⁴ Hurley, J.D. 2002, 'The Lions Road'

likely to damage the exiting Lions Road. Though the Lions Road is now a council owned and maintained road, there is still a strong feeling of community ownership of the road. Many of the longtime local residents I have spoken to feel that the construction of a major gas pipeline along and under the road is likely to degrade what to them is an important part of the cultural heritage of the area.

Ode to The Lions Road¹⁵ by Haffy Jensen

On McPherson's Range at Richmond Gap,
Near Lynch's Creek on the council map,
A road has been built by Kyogle's Lions,
That countrymen's spirit and courage defines.
The twists and turns of the tortured tracks,
Have been straightened out by unstraightened backs,
Officialdom said "It couldn't be done".
But the people knew better and finally won.
This road through Wiangaree offers so much,
With staghorns and elkhorns, too lovely to touch,
The scene at The Loop is grand and unique,
As is the wild country approaching the peak.
Strong people must always be ready to fight,
When Governments deny them a basic right,
Kyogle's great effort, it's people's concern,
Provides an example for all who would learn.
When the future provides its paved link,
I hope there'll be some who will stop and think,

¹⁵ Hurley, J.D. 2002, 'The Lions Road'

Of the boldness, faith and vision of men,
Who built the Road by the glow worm's Glen.