QUEENSLAND RESOURCES COUNCIL
STATE OF THE SECTOR
DECEMBER QUARTER 10
VOLUME 2 NUMBER 4

AFTER THE FLOOD

BY MICHAEL ROCHE

Coal and to a lesser extent coal-seam gas operations in the Bowen, Surat and Clarence-Moreton coal basins have been disrupted by unprecedented rainfall that continued to fall from August 2010 and into early January 2011.

With both open-cut and underground coal operations affected, production levels are expected to be lower for a period of time due to the damage to associated hard infrastructure as well as an inability of companies to remove excess water. Stockpiles are being exhausted with a high percentage of coal operations declaring force majeure.

The immediate recovery in the sector will require priority given to road and rail repairs and improving the Department of Environment and Resource Management's (DERM) regulatory process for water management. The case for allowing companies to release water outside of their Environmental Authority conditions and for government to implement its emergency powers is the focus of our feature article (Environmental regulation and flood water management).

Given the extent of rain, the recovery of the coal rail network has been impressive. By Australia Day most of the coal rail network was back in action albeit with a range of restrictions. The Western Line servicing the Port of Brisbane remains closed west of Toowoomba—possibly for up to three months. The QRC has asked the Queensland Government (as owner of the Queensland Rail government owned corporation) to make this a priority. QRC member Xstrata Coal is working closely with QR National on the planning of repairs to the severely damaged Rolleston spur line.

Coal exports are now more likely to be negatively impacted by the inability of mines to remove the water from pits, whether that is due to the state government's risk-averse environment regulator; a lack of pumping equipment; or other damage. The QRC estimates that 85 percent of coal mines are partly or fully constrained by water issues.

Our oil and gas members have indicated that new gas drilling and exploration has been impacted because of access issues. Queensland's significant coal and gas-fired electricity generation capability faced some challenges at the height of the recent flooding, but has generally come through in good shape.

Despite moderately high falls to date, our base and precious metal producers in the north and north-west have so far avoided the wrath of the north Queensland wet season, with production holding steady. The more immediate concern has been the recent reduction in available electricity supply with the community currently juggling local power loads.

Based on feedback from companies, 'best estimates' of the economic losses are possible. Vis-a-vis a Business as Usual (BAU) scenario, the economic impacts are likely to be significant. The QRC economics team estimates lost production in 2010-11 to be at least $5.3 billion, but as high as $9.5 billion. See next page for more details.

QRC remains in close contact with key ministers and director-generals. We are also members of a number of working committees under the auspices of the Premier's Flood Recovery Taskforce.

QRC member companies have to date contributed the best part of $25 million to the Premier's and other local appeals as well as substantial in-kind contributions.

The sector has proven its resilience having recovered strongly from from past flooding events and other shocks such as the GFC to continue to service existing and new global customers. These events are unlikely to impact upon the $100 billion of new resource projects currently slated for the state. Indeed, while most of Australia was transfixed by the devastating floods, QRC member Santos and its GLNG partners announced the go-ahead for a US$16 billion LNG project in Queensland.

With the QRC's latest CEO sentiment index survey (see back page) rating skills as the number one issue, the 1500 jobs expected to be created by the GLNG project will only add to the skills attraction and retention challenge. QRC will not lose focus on our medium to long-term policy agenda: safety and health, skills, resource taxation, climate change policy, land access and streamlining approvals processes.

IN THIS EDITION:

ECONOMIC LOSS FROM FLOODS

The economic loss associated with the anticipated fall in coal production is likely to be significant compared with a BAU scenario.

Drawing on a number of information sources, the potential production impact on Queensland coal operations can be estimated. It should be stressed that companies are still assessing the true extent of the disruption. An added complexity will be the effect of more rain that is forecast.

These estimates are provided to highlight the imperative of actions and measures to return the sector back to full production, not to inform commercial decisions. For these purposes, a low and high impact is estimated. The percentages, expressed in the table below, represent the estimated reduction in production (not exports) compared to a BAU production scenario of 51 million tonnes each quarter:

	Low impact	High impact
December Qtr 2010	25%	35%
March Qtr 2011	25%	50%
June Qtr 2011	10%	20%

The following table contains QRC and Lawrence Consulting estimates of the lost royalties per day, value of production and Queensland state product from 1 October 2010 to 30 June 2011 under these high and low impacts:

	Low impact	High impact
Lost value of production ($m)	$5,263	$9,456
Lost royalties per day ($m)	$1.6	$2.9
Lost Gross State Product ($m)	$4,480	$8,048

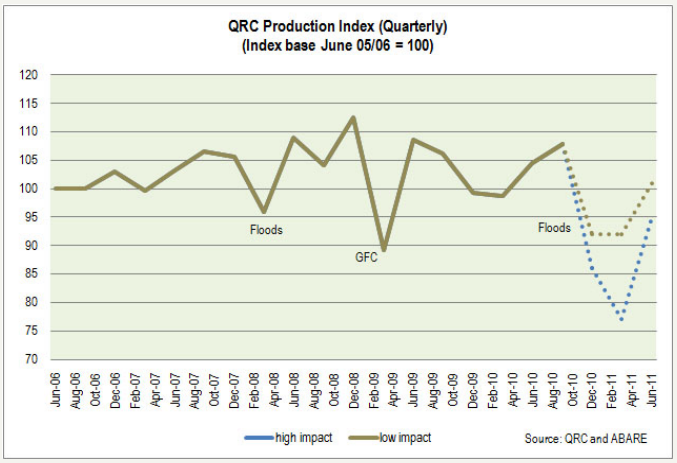
To put the reduction in Queensland's Gross State Product (GSP) into perspective, Queensland GSP between 2008-09 and 2009-10 grew by $5,592 million. A low-impact scenario of $4,480 million would mean almost all of the state's growth between those years would be eliminated.

With prices for most commodities including coal at near record levels, there is an enormous commercial incentive to get operations back to capacity as quickly as possible. Doing so will not only bolster royalty revenues but will also restore confidence in flood affected communities such as Emerald, Rockhampton, Dalby and Brisbane, which rely heavily on the injection of resource sector salaries and the ongoing demand of goods and services from resource operations.

THE QRC PRODUCTION INDEX

The QRC production index is a composite weighted index that tracks percentage increases and decreases in the total production of Queensland bauxite, alumina, aluminium, coal (all saleable), copper, gold, lead, silver, zinc, oil, gas, and electricity (NEM) quarter to quarter.

The production index has been modified to include the estimated high and low impact decreases in coal production discussed above. Under a high impact assumption, the sector's overall production drops to 77 percentage points in the March 2011 quarter and improves in the June 2011 quarter. By way of comparison, this production impact if realised would be considerably greater than the floods that occurred in early 2008 and the reduction in coal demand that was induced by the GFC that started in early 2009.

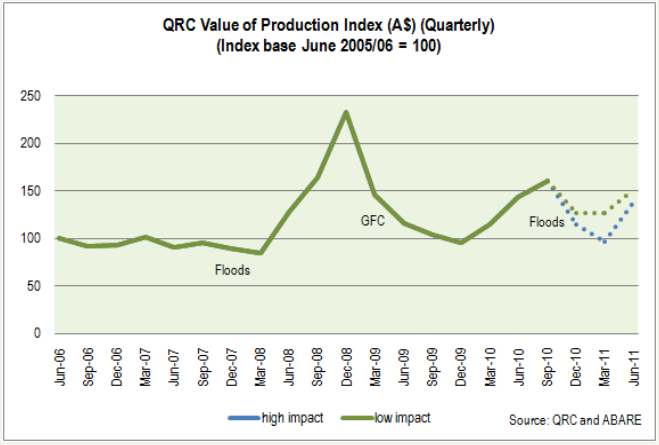


THE QRC VALUE OF PRODUCTION INDEX

Comprising the same basket of goods as the QRC production index, the QRC value of production index combines domestic production and average global benchmark prices to track percentage increases and decreases in the total value of production.

Like the production index above, low and high impact estimates of future coal production have been inserted into the value of production model. Given already high coal prices (approximately $A100/t thermal and $A233/t metallurgical), and the likelihood they will continue to rise (benefiting those companies not under force majeure from April 2011 onwards) the net impact on coal value of production in 2010/11 when compared to 2009/10 is likely to be minimal even under the high impact scenario.

From a company revenue perspective this is positive news. Equally, because royalties are not levied on profits but value of production, royalties will continue to flow strongly to the state government, providing a much needed injection to the recovery effort. That said, the 2010/11 budget estimates were already going to take a substantial exchange rate-driven hit given the move of the Australian dollar to parity (against the $US).



FEATURE: ENVIRONMENTAL REGULATION AND FLOOD WATER MANAGEMENT

A striking feature of the flooding in Brisbane was the number of building basements from which floodwater was being pumped into storm water drains and back into the Brisbane River.

Unlike the highly regulated resource industries, the pumping was not regulated, but conducted as an emergency measure. Buildings had to be pumped out quickly to get them back into action.

On behalf of the Queensland resources industry, the QRC spent a lot of time in December meeting with the Department of Environment and Resource Management (DERM), among whose responsibilities is the regulation of water discharges from mines.

They were held against a background of rainfall well above average across the state's coalfields from August 2010; and it simply hadn't stopped raining.

With water building up in mine dams and pits and predictions of a major rainfall event over Christmas (Cyclone Tasha), QRC and DERM discussed how mines and the regulator would handle recurring inundations.

Unlike city buildings, mines can't discharge water off-site on and as needs dictate.

Mines operate under strict environmental regulations, the rigidity of which contributed to the build-up of water in coal mines over many months.

Queensland's Environment Protection Act (EP Act) provides a mechanism called a Transitional Environmental Program (TEP) that in extenuating circumstances allows individual mines to discharge water outside normal parameters, but in a manner safe to the environment.

DERM officers have done a magnificent job processing 26 TEP applications to date and working very long hours and giving up their holidays to deal with this emergency.

Contrary to some media, mines have not sought, nor has DERM approved the discharge of 'toxins' or 'contaminated floodwater' from coal mines.

As DERM points out on its website, the water being discharged may have elevated levels of soluble salt, but usually at levels safe for stock watering and irrigation.

When most of central and southern Queensland's creeks and rivers were in flood or flowing strongly, a massive dilution factor worked in favour of the TEP process.

But now many of the creeks where mines need to discharge water are returning to normal levels, but still feeding into strongly flowing rivers.

It's understood that DERM is dealing with another 15 TEP applications and that several involve requests to discharge into low-flow creeks from mines where operations are being severely hampered by excess water.

Several of these have been with DERM for around two weeks.

QRC members are fearful that they are also vulnerable to uncontrolled water releases in the event of additional heavy wet-season rain, which forecasters say is on the cards.

Right now, the QRC estimates operations at 85 percent of Queensland's coal mines are partly or completely impaired by excess water.

The TEP was never envisaged as a mechanism to handle such an industry-wide emergency. QRC has suggested the state government should seriously consider using its emergency powers to authorise the speedy release of excess water from mines. The response has been a determination to stick with the TEP process.

The coal industry is not seeking a leave pass to discharge 'toxins' or 'contaminated floodwater,' but regulatory recognition that these are not normal times and that the biggest reconstruction in Queensland's peace-time history demands all hands on deck. A less conservative approach from the state government on water discharges would go a long way to reducing QRC's high-end estimate of $9.5 billion in lost production.

A view of flooded pits, a scene repeated throughout Queensland mining regions. Photo: Dalby Herald

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QRC CEO SENTIMENT INDEX

The QRC CEO Sentiment Index is a survey of the QRC's full-member company chief executives.

These companies cover the majority of mining, minerals processing, contracting, exploration, electricity generation and oil and gas extraction activity in Queensland.

In priority order, issues that are expected to 'very strongly' and 'more than normal' impact the Queensland resources sector over the next 12 months are:

1 attracting and retaining skilled employees

2 social licence to operate pressures

3 uncertain and or poor regulation (includes taxation)

4 high input costs

5 insufficient government resources

6 climate change policies

The coincidence of strong global demand for resources and strong brown and greenfield development; a low national unemployment rate of 5.1 percent; an ageing workforce; and now an enormous flood recovery effort, Australia's skills problem is likely to tighten in certain occupational categories.

In July 2010, the National Resources Sector Employment Taskforce warned of a growing skills crisis in the Queensland and Australian resources sector. Nationwide, the shortfalls in key skills areas by 2015 include 36,000 tradespeople, 1700 engineers and 3000 geoscientists. The report concluded that Queensland was likely to experience acute shortages in civil and electrical engineers, fitters, electricians, drillers, tradespeople and plant and machinery operators.

The QRC calls on state and federal governments to implement innovative policy solutions to address this problem, which will hamper the flood recovery effort, and continued growth in the resources sector.

The QRC calls on the state government to allow resource companies full flexibility in sourcing appropriately skilled workers. This includes not placing restrictions on fly-in-fly-out in project approvals. Furthermore, we call on the federal government to expedite plans to improve Australia's skilled migration programs.

CEO quotes from CEO Sentiment Index Survey

New projects depend heavily on managing input costs, raising sufficient capital at competitive rates, depending heavily on quality skilled staff, and expecting some certainty/ predictability in the government assessment and regulation process. Infrastructure is also an added cost or impacts the availability of skilled support resources. **(Oil and gas producer)**

Approvals at state and federal level very slow/delayed, insufficient government capacity and competence. **(Oil and gas producer)**

We operate in central Queensland and expect significant difficulties in being able to attract and retain skilled staff with burgeoning LNG and coal sectors. Domestic climate change policies with respect to carbon tax and renewable energy Target (LRET / SRES) schemes and impact on energy costs of significant and heightened concern.
New taxes and royalties by state and federal governments have been of significant concern over past two to three years and seem likely to continue the trend into 2011. **(Minerals processing company)**

Growing external stakeholder issues around land access/ water management/compensation for CSG companies in the Surat Basin. **(Oil and gas producer)**

There is a limited pool of skilled underground miners and we need approximately 80 fast. Landowners are becoming more difficult to deal with over compensation. Employees are pushing for big wage rises. Lack of key hard infrastructure will impact more and more on new projects. **(Coal mining company)**

QRC PROFILE

The Queensland Resources Council is the peak representative body for more than 200 companies with interests in the state's minerals and energy sector. The QRC's 90 full-member companies comprise explorers, miners, contractors, mineral processors, oil and gas producers and electricity generators. QRC service-member companies cover the gamut of professional services provided to the resources sector in the four corners of Queensland.

Written and prepared by the QRC. The data for this publication is sourced from a number of public sources–notably the Australian Bureau of Agricultural and Resource Economics and the Australian Bureau of Statistics. For more information, contact the QRC on (07) 3295 9560 or http://qrc.org.au