Industry trends and outlook

QUEENSLAND resources COUNCIL

Michael Roche

Chief Executive

Queensland Petroleum
Exploration Association
24 February 2011

Today's key messages

> Major flood/water losses for coal, CSG industry mostly unscathed

> CSG sector powers on but some social licence challenges

> Queensland's resources outlook is very strong

> Potholes on the road to realising decades of economic security

Who we are

- The QRC is a not-for-profit peak representative body for the commercial developers of Queensland's minerals and energy resources
- 88 full members – explorers, miners, mineral processors, site contractors, oil and gas producers, electricity generators
- 125 service members - providers of goods or services to the sector
- Peak policy-making instrument: elected 30-member QRC Board including Arrow Energy, Origin Energy, QGC and Santos
- Work collaboratively with national bodies like APPEA, MCA, ACA, AUA

Aberdare Collieries Pty Ltd
Adani Mining
Alcyone Resources
Altona Mining
Ambre Energy
Anglo American Exploration
Anglo Coal Australia
Aquila Resources
Arrow Energy
Aston Resources
Bandanna Energy Limited
BHP Billiton Cannington
BHP Billiton Mitsubishi Alliance
BHP Mitsui Coal
Birla Mt. Gordon
Blue Energy
Bowen Central Coal Management
Caledon Coal Pty Ltd
Cape Flattery Silica Mines
Carbon Energy
Cement Australia
Civil Mining and Construction
Clean Energy Australasia
Clean Global Energy
Cockatoo Coal
Cougar Energy
Deep Yellow
Diatreme Resources
Downer EDI Mining
Elementos
Ensham Resources
ERM Power
Exco Resources
Gloucester Coal
Golding Contractors
Hancock Coal
Investigator Resources
Ivanhoe Australia Limited
Jellinbah Resources
John Holland
Lagoon Creek Resources
Legend International Holdings
Leighton Contractors
Liberty Resources
Linc Energy
Lodestone Energy
Macarthur Coal
Macmahon Holdings
Mastermyne
Mega Uranium
Metallica Minerals
MetroCoal
Millmerran Power Management
Mineral and Coal Investments
Minerals and Metals Group
Mitsubishi Development
New Hope Coal Australia
North Queensland Metals
Northern Energy Corporation
Norton Gold Fields
Origin Energy
Paladin Resources
Peabody Pacific
QCoal
QER
QGC
Queensland Magnesia
Rio Tinto Alcan
Rio Tinto Coal Australia
Santos
Sibelco Australia
Sojitz Coal Mining
Sonoma Mine Management
Stanmore Coal
Stanwell Corporation
Summit Resources
Superior Coal
Syntech Resources
Tarong Energy Corporation
Thiess
Vale
Waratah Coal
Wesfarmers Resources
Westside Corporation
Xstrata Coal Australia
Xstrata Copper
Xstrata Zinc Australia
Yancoal

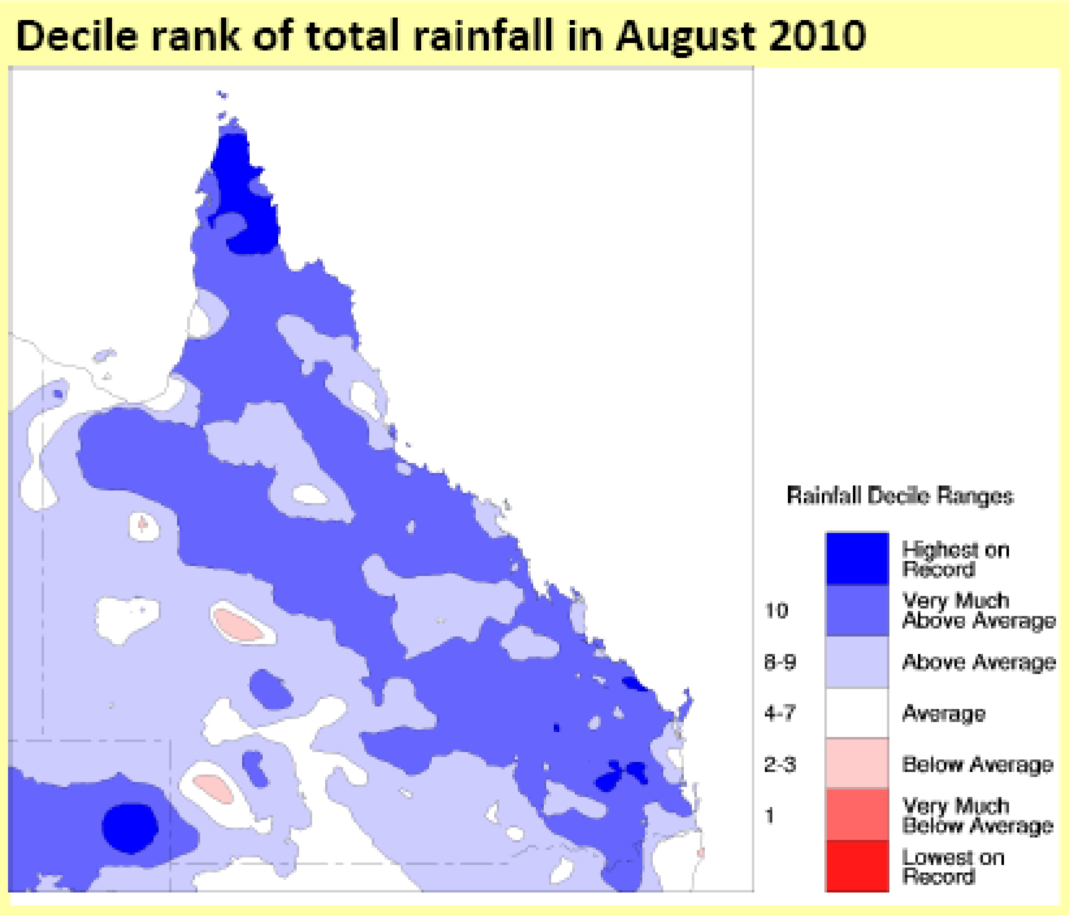
88 full members

125 service members

34 associate members

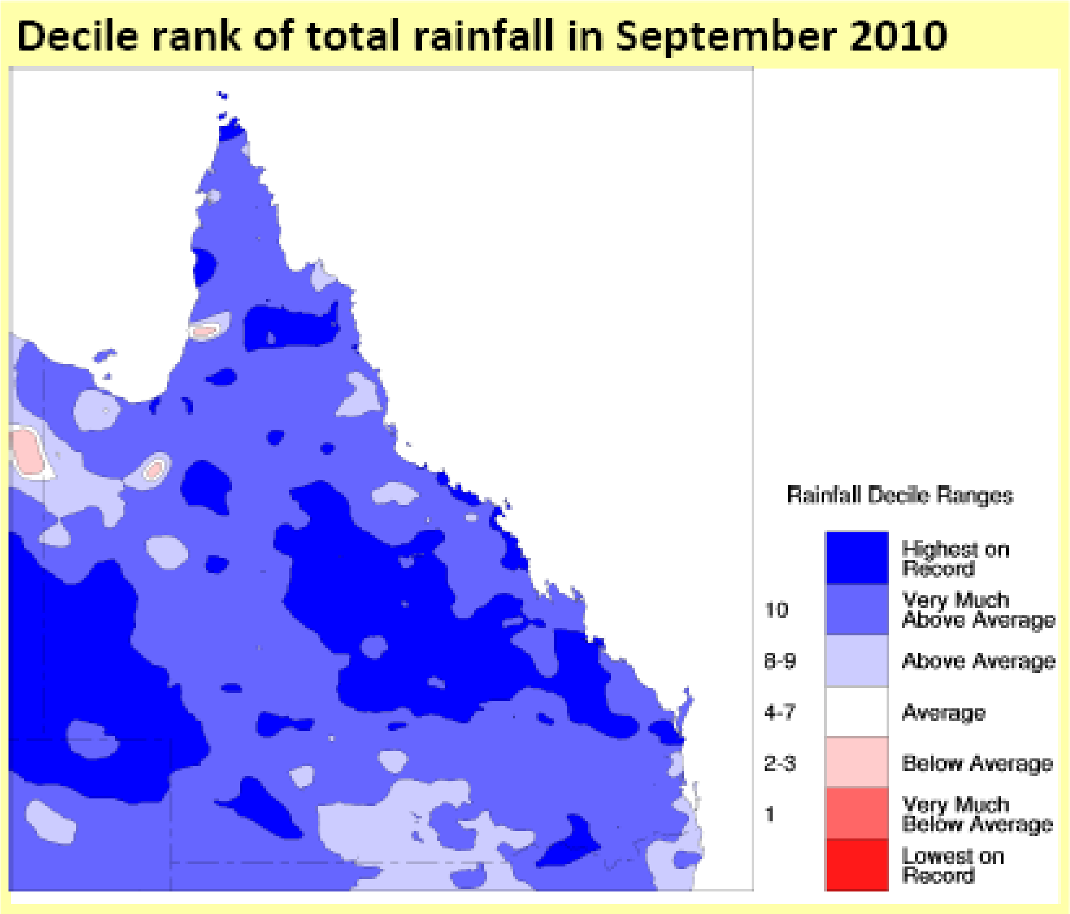
QUEENSLAND resources COUNCIL
qrc.org.au

Unprecedented rainfall



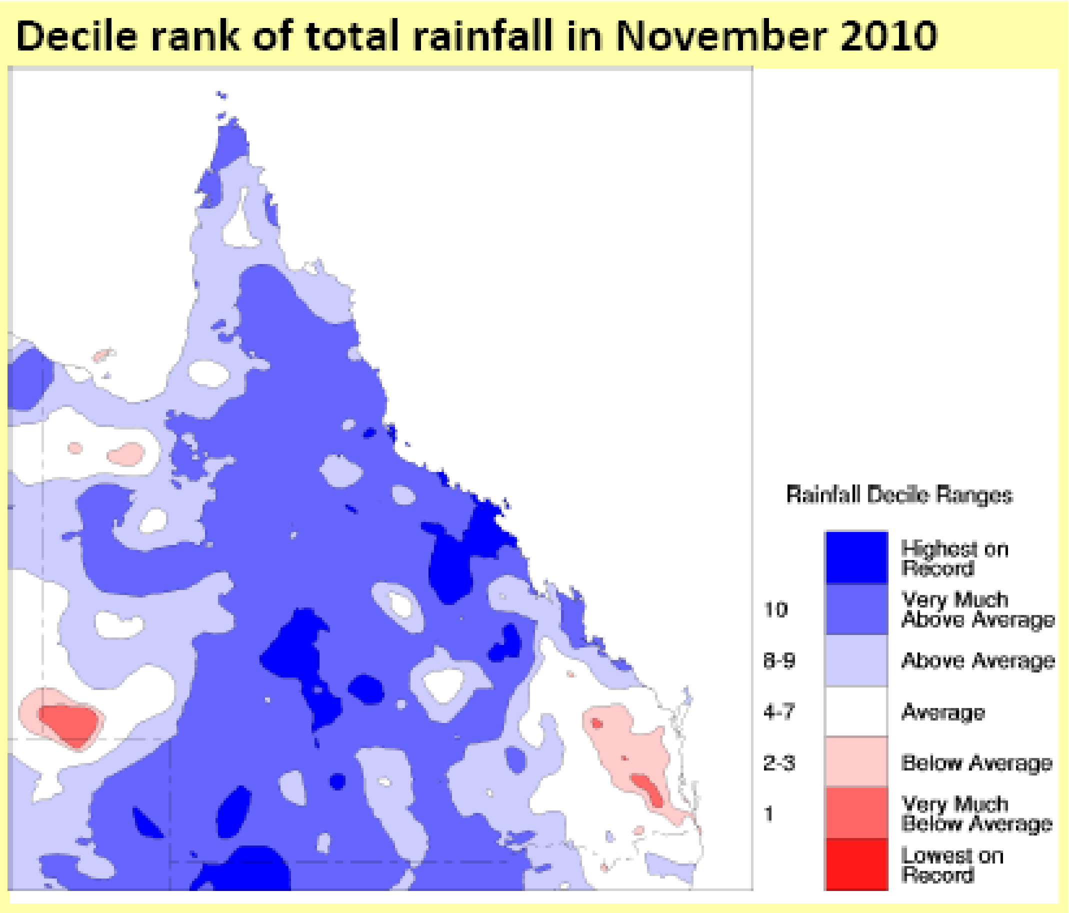
QUEENSLAND resources COUNCIL
qrc.org.au

Unprecedented rainfall



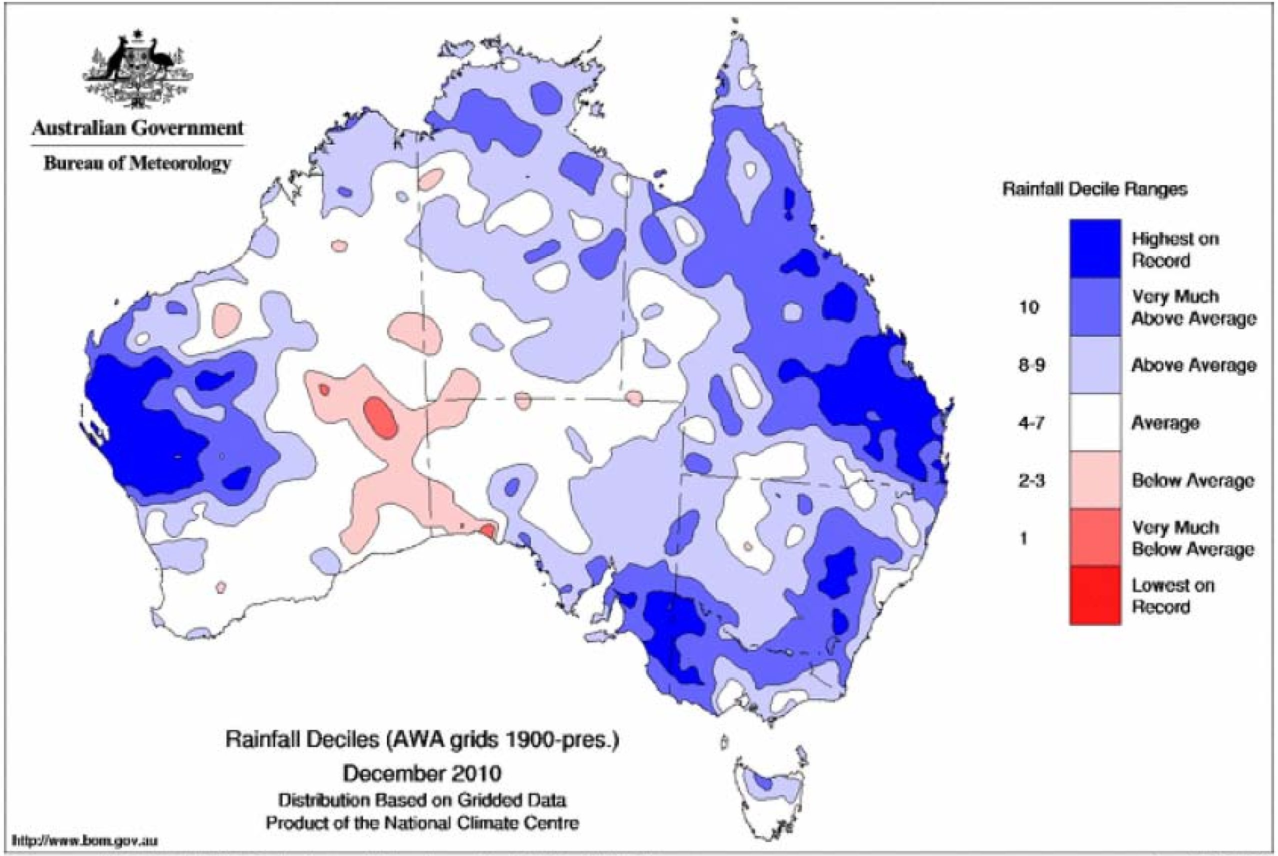
QUEENSLAND resources COUNCIL
qrc.org.au

Unprecedented rainfall



QUEENSLAND resources COUNCIL qrc.org.au

Unprecedented rainfall



© Commonwealth of Australia 2011, Australian Bureau of Meteorology ID code: IGMapAWAPDeciles Issued: 04/01/2011

QUEENSLAND resources COUNCIL
qrc.org.au

Mine damage

Photo: Dalby Herald – January 2011

Bowen Basin – 14 February 2011

QUEENSLAND resources COUNCIL
qrc.org.au

Estimated economic impacts: coal sector

44 of 57 coal mines have or still seeking Transitional Environmental Programs (TEPs)

Lost Coal production forecasts (2010/11):

Qld Govt forecast:
15 MT ($2.5 b lost production, $200m lost royalties)

QRC forecast:
Low impact   - 30 MT ($5b lost production, $400m lost royalties)
High impact - 53 MT ($9b lost production, $700m lost royalties)

TEPs not the solution - long term solution needed

Coal-seam gas industry impacts

Compared to coal, CSG relatively unscathed

At height of flooding, several producing wells submerged; some CSG dam levels were dangerously high; production halted; severe disruptions to access for people and supplies.

Biggest enduring problem: disruptions to drilling programs.

7 CSG sites have received or are seeking TEPs.

Like coal, vulnerable to further major rainfall events.

QUEENSLAND resources COUNCIL
qrc.org.au

Meanwhile coal-seam gas industry powers on

In middle of Brisbane floods: GLNG FID announced

GLNG plus QCLNG: bigger than Gorgon!

Hundreds of new positions already being advertised and filled

22 Feb: APLNG gains Federal Government approval (FID reportedly dependent on gas sales)

Arrow Energy LNG preparing EIS .... **BUT**

QUEENSLAND resources COUNCIL qrc.org.au

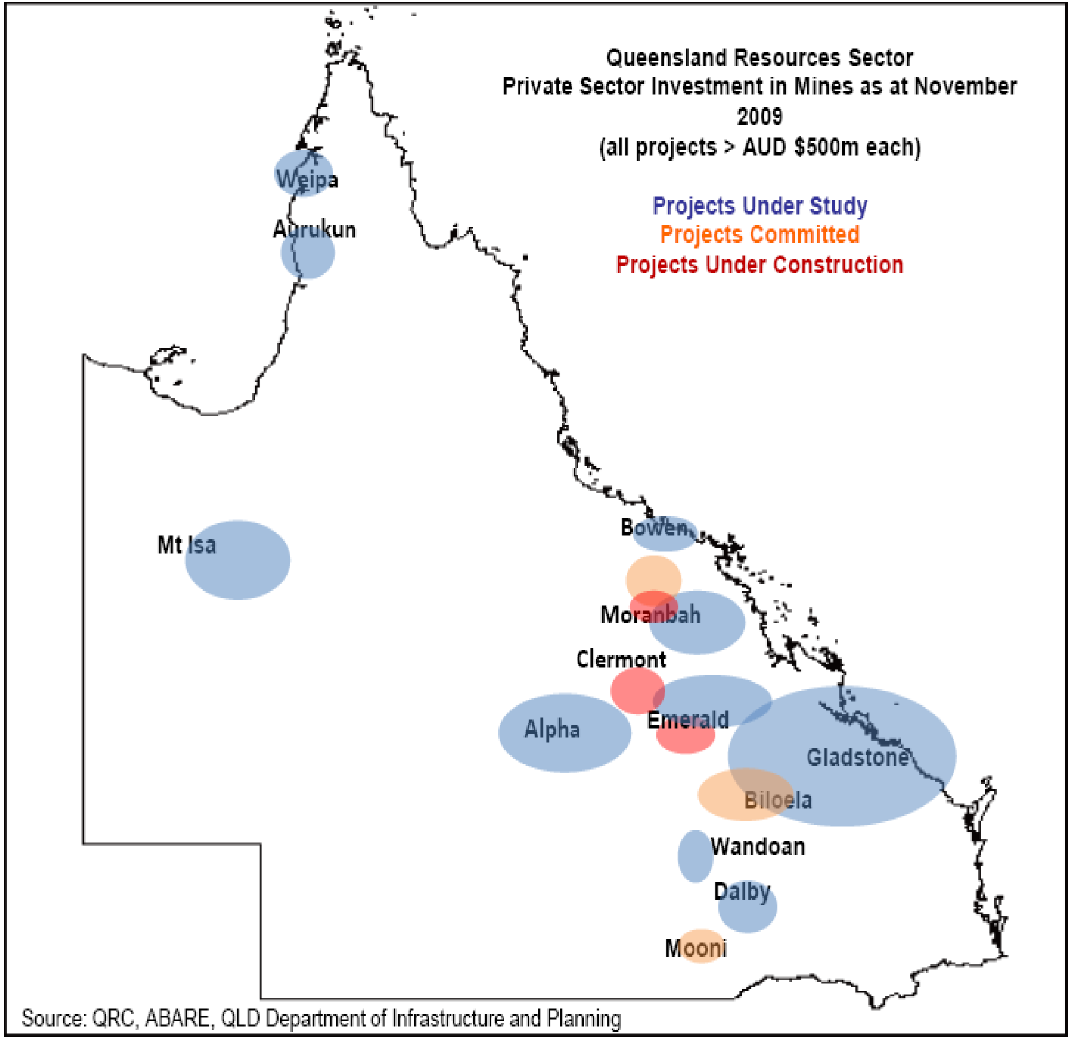
CSG prime media fodder

QUEENSLAND
resources
COUNCIL
qrc.org.au

Can we achieve genuine CSG/farmer partnership?

QRC visited several farmers to listen to concerns:

- CSG companies ‘lack people skills’
- Concerned about cumulative groundwater impacts
- CSG accepted as valuable but ‘must be extracted sustainably’
- Have seen a change of attitude (for the better) in some CSG companies
- To maintain water balance, give us treated CSG water or reinject
- CSG companies must recognise compensation needs differ by property
- Need to help maximise flexibility for farmers to get best use of land
- Why not contract farmers to provide services on their own properties
- Gas companies driving up cost of farm labour
- Some companies very bureaucratic, others ‘I can get through to the top’
- Companies have not tried to get grasp of how farms work
- In some companies, their people show no respect to ‘host’ farmers



2011 projects outlook

$100 billion in resource projects committed or awaiting FID

Three CSG-LNG project proposals account for half of that - a fourth in the wings

Two have FID, has state and federal approval s

But the mining sector - mostly coal - also has several projects committed or awaiting FID

Future production and value of production

Source: QRC and members

QLD Resources Sector Production and Value of Production (A$billion)						
	1999/00		2009/10		2019/20[f]	
	Production	Value ($b)*	Production	Value ($b)	Production**	Value ($b)*
Alumina (kt)	3,156	0.9	4,508	1.3	6,508	1.9
Aluminium (kt)	40	0.1	333	0.7	333	0.7
Bauxite (kt)	10,915	0.3	17,068	0.5	34,000	1.0
Black Coal (Thermal) (Mt)	45	4.0	77	6.8	237	20.9
Black Coal (Coking) (Mt)	67	10.0	116	17.3	207	30.9
Copper content (kt)	431	3.0	255	1.8	299	2.1
Gold (t)	34	1.4	15	0.6	23	0.9
Lead (kt)	301	0.7	436	1.0	510	1.2
Silver (t)	1,073	0.7	1,469	0.9	1,520	0.9
Uranium (lb)	-	-	-	-	12,000,000^	0.6
Zinc (kt)	217	0.5	857	1.9	933	2.1
Coal Seam Gas (PJ) (Domestic)	na	na	125	0.4	173	0.6
Crude Oil and Condensate (ML)	na	na	632	0.2	875	0.3
Synthetic Oil (Oil Shale) (Mbbls)	-	-	-	-	18	1.8
Liquified Petroleum Gas (ML)	na	na	187	0.1	209	0.1
Liquified Natural Gas (Mt)	-	-	-	-	30	22.5
Processed Natural Gas (PJ)	na	na	105	1.4	148	2.0
Electricity (MWhr) (Domestic NEM)	43,689,301	1.3	54,611,627	1.6	57,000,000	1.7
Total		22.8		36.5		92.1
			60%		152%	

* at 2009/10 prices
** based on current investment plans
^ preliminary figure that could change significantly if/when mining optimization studies are concluded
Source: Company reports, ABARE Australian Mineral Statistics and QME website

QUEENSLAND resources COUNCIL

Working together for a shared future

The skills challenge facing the resources sector

National Resource Sector Employment Taskforce: Federal response said to be imminent. Will need to address

- **45,000 construction jobs in resource projects**
- **62,000 new mining jobs**
- **Thousands of LNG operational jobs**
- **Major shortages in engineering, geoscience professionals**
- **Chronic cross industry trade shortages**
- **The role of migration**

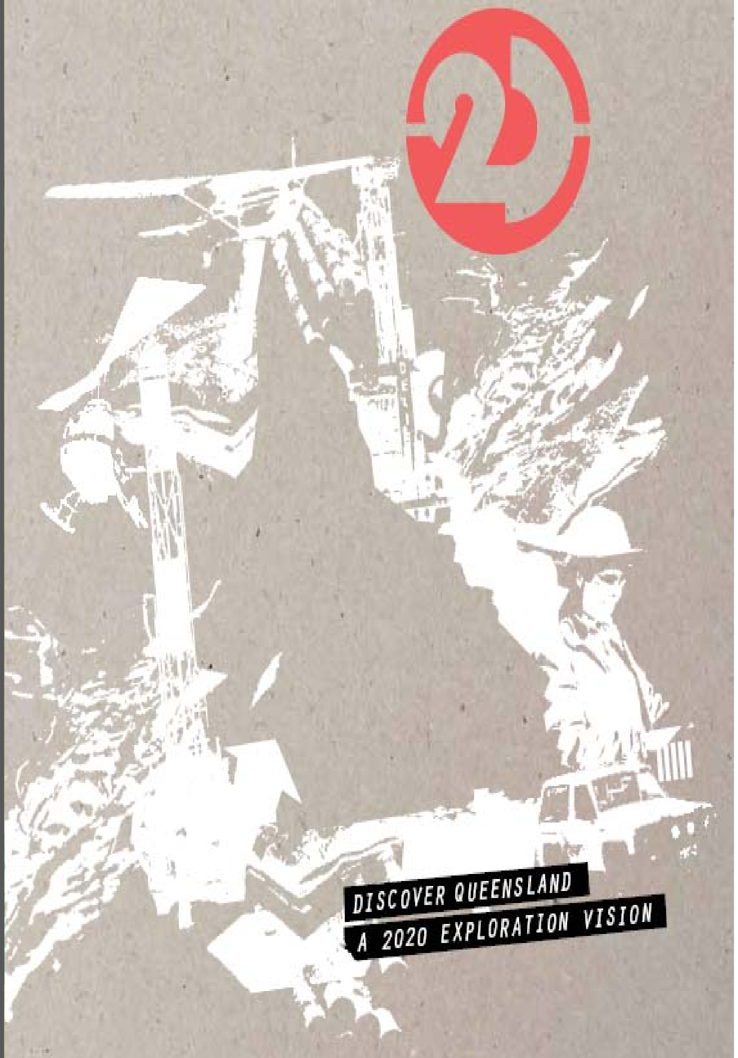
- **Qld Government's new skills commission?**
- **Industry response to date underwhelming**
- **New Minister for Employment, Skills and Mining**

Other challenges ahead

- > MRRT/PRRT
- > Carbon pricing – not the mechanism, more the transition
- > Land access/land use conflict eg strategic cropping land
- > Industry's 'social licence' to operate
- > Influence of Greens, in Queensland and federally
- > Winning broad-based support for exploration

www.queenslandeconomy.com.au

QUEENSLAND resources COUNCIL
qrc.org.au



Queensland underperforms in exploration eg
- 30%+ of mineral production
- 16% of exploration spend

Explorer ratings:
Geologically – Top 10
When reality bites – Top 25

QRC “*2020 Exploration Vision*”

Queensland Exploration Council -
Launch breakfast event 24 March

Industry trends and outlook

Michael Roche

Chief Executive

Queensland Petroleum
Exploration Association
24 February 2011