Recognising the interlinked nature of environmental law creates fertile ground for Wild Law principles

Dr Chris McGrath

Photo: NASA

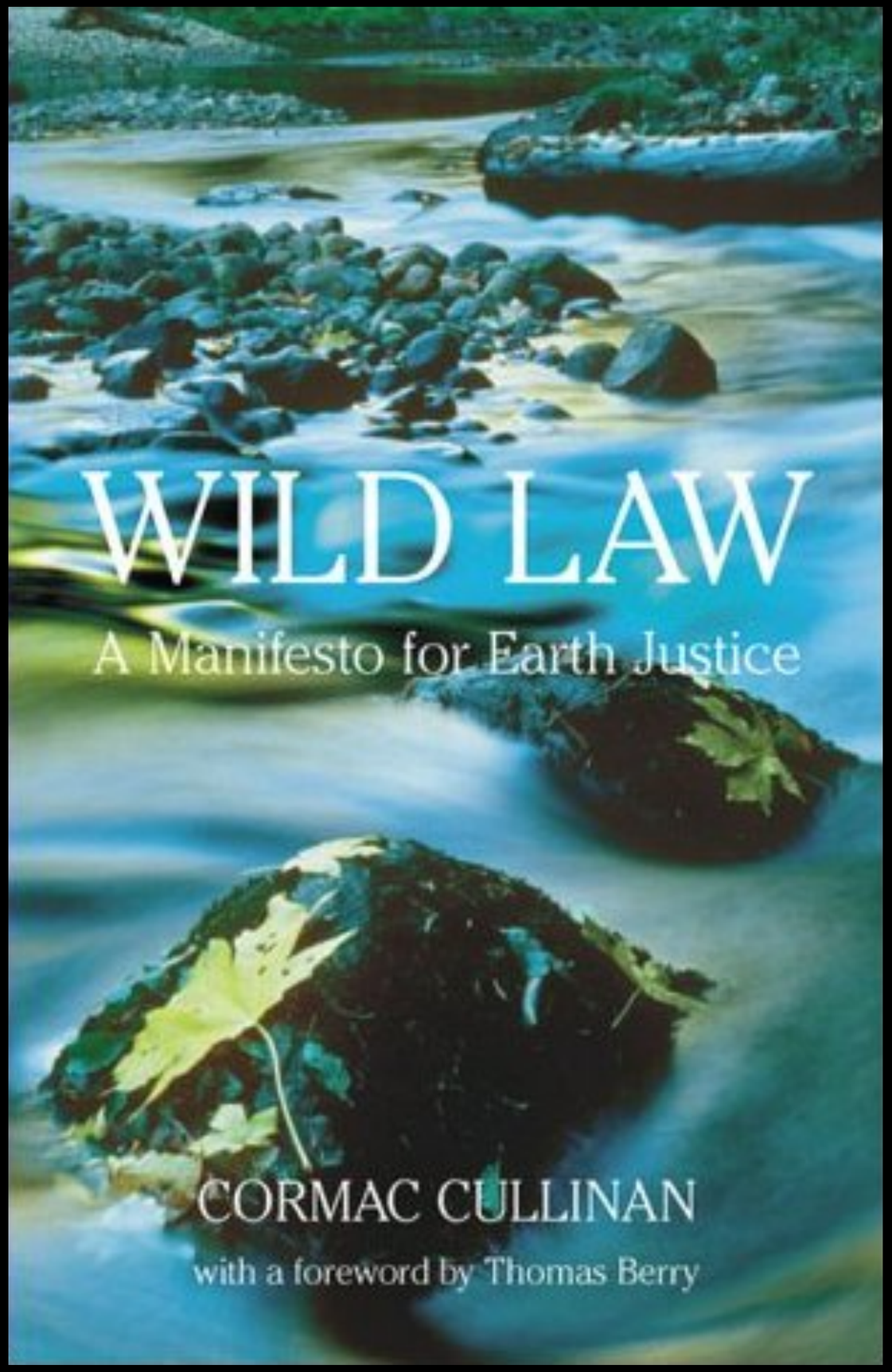
Outline

1. Two key points
2. Story of the Wandoan Coal Mine case

Key points

1. The interlinked nature of environmental law creates fertile ground for Wild Law principles.
2. Existing environmental laws have a wide scope to be applied consistently with Wild Law principles.

Wild Law principles



Wild law principles:

Maintenance of the system of life on Earth and respect for cultural heritage are fundamental principles that must govern human society and decision-making.

Key points

1. The interlinked nature of environmental law creates fertile ground for Wild Law principles.
2. Existing environmental laws have a wide scope to be applied consistently with Wild Law principles.

Traditional categories of environmental law such as “town planning”, “pollution”, “fisheries”, “EIA”, “mining”, etc

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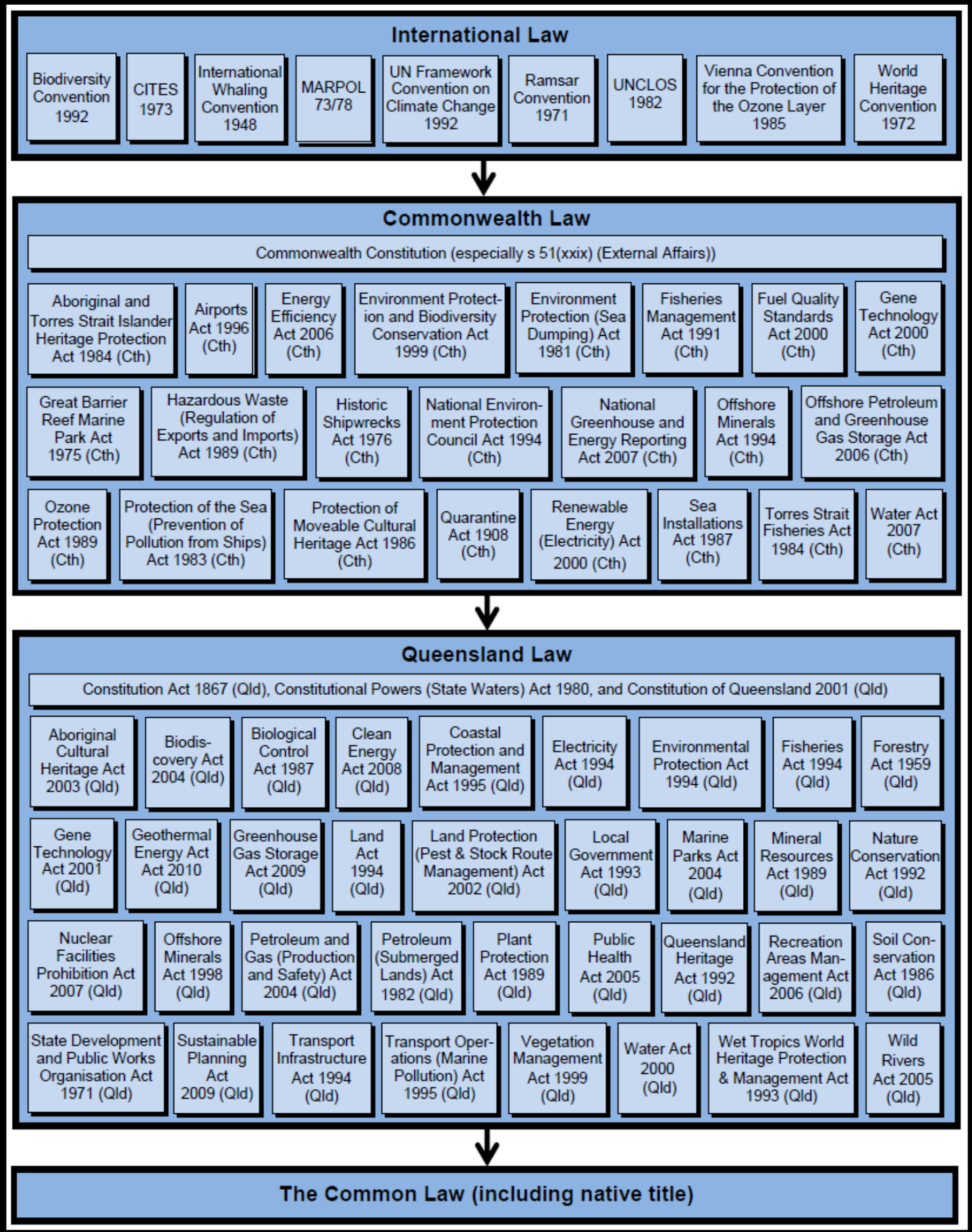
A major failing with these categories is that they quickly break down in practice as problems & laws overlap

Traditional categories of environmental law such as “town planning”, “pollution”, “fisheries”, “EIA”, “mining”, etc

vs

A holistic approach of seeing the law as an interlinked system

Thinking of environmental law as an interlinked system with many pieces and without discrete categories



Key points

1. The interlinked nature of environmental law creates fertile ground for Wild Law principles.
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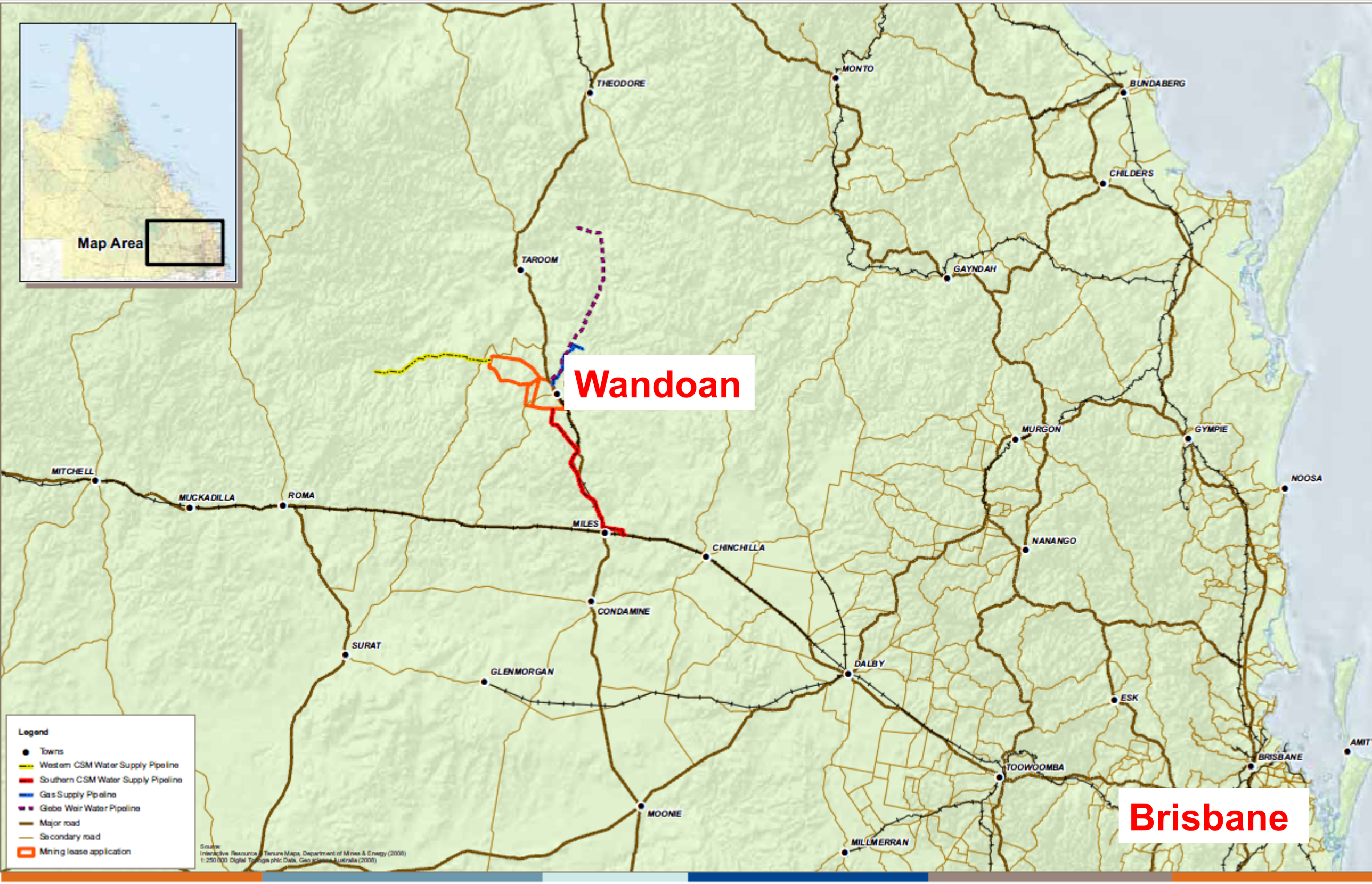
Story of the Wandoan Coal Mine Case

Source: Xstrata Coal

Location of proposed Wandoan Coal Mine, 350km NW of Brisbane



xstrata coal

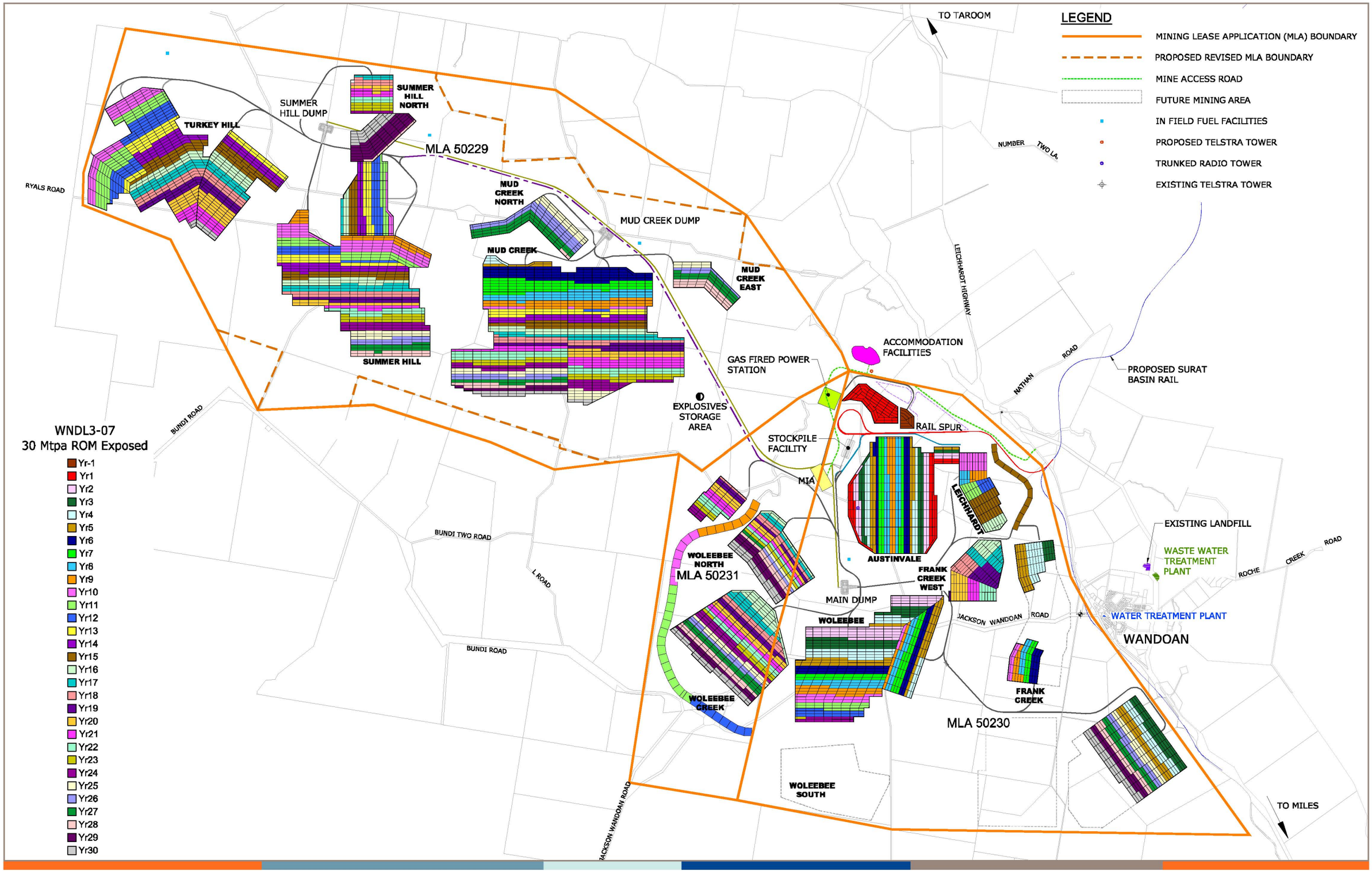
Figure 1-1-V1.3

Wandoan Coal Project Locality

Typical landscape on which Wandoan Coal Mine proposed

Source: Xstrata EIS 2009

Mine layout plan & 30-year mining schedule



xstrata coal

0 1 2 3 4 5
Kilometers

Figure 6-3-SV1.3
Indicative Mine Layout and Schedule

Sample pit for mine near Wandoan showing coal seam beneath 10-15m of earth.

Source: Xstrata Coal

Dragline at Xstrata’s Bulga Coal

Source: Xstrata Coal

Unknown coal mine in Queensland showing scale of operations.

Several of the 14 pits at Wandoan will be 5km x 5km in area and 70m deep.

Cf. Wandoan Coal Mine Case website at http://www.envlaw.com.au/wandoan.html

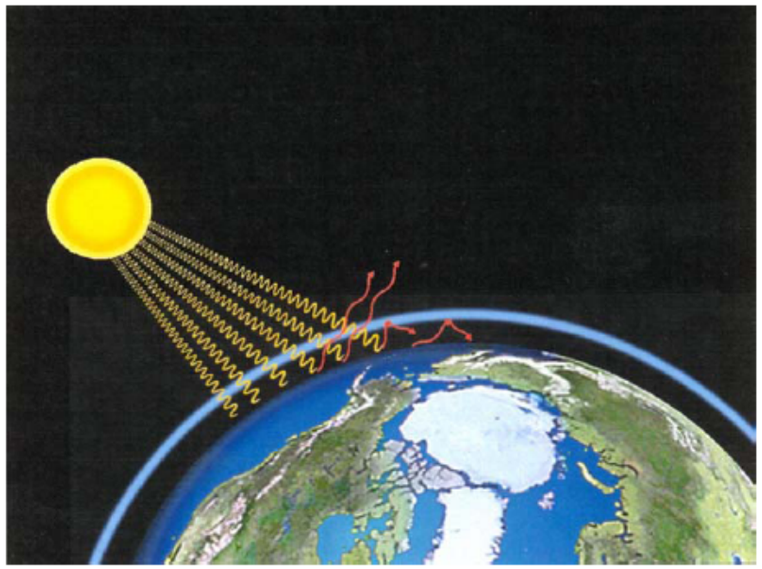
Source: Business News (2010)

FoE evidence presented to the Land Court of Queensland in an objection hearing to the Wandoan Coal Mine in August 2011 – available at http://www.envlaw.com.au/wandoan.html

Professor Ian Lowe	Climate change science
Dr Malte Meinshausen	Contribution of the mine to climate change and ocean acidification
Professor Ove Hoegh-Guldberg	Impacts of climate change and ocean acidification on the Great Barrier Reef (GBR)
Hans Hoegh-Guldberg	Economic impacts of climate change on GBR tourism

Professor Ian Lowe

A brief summary of the science of global warming and climate change



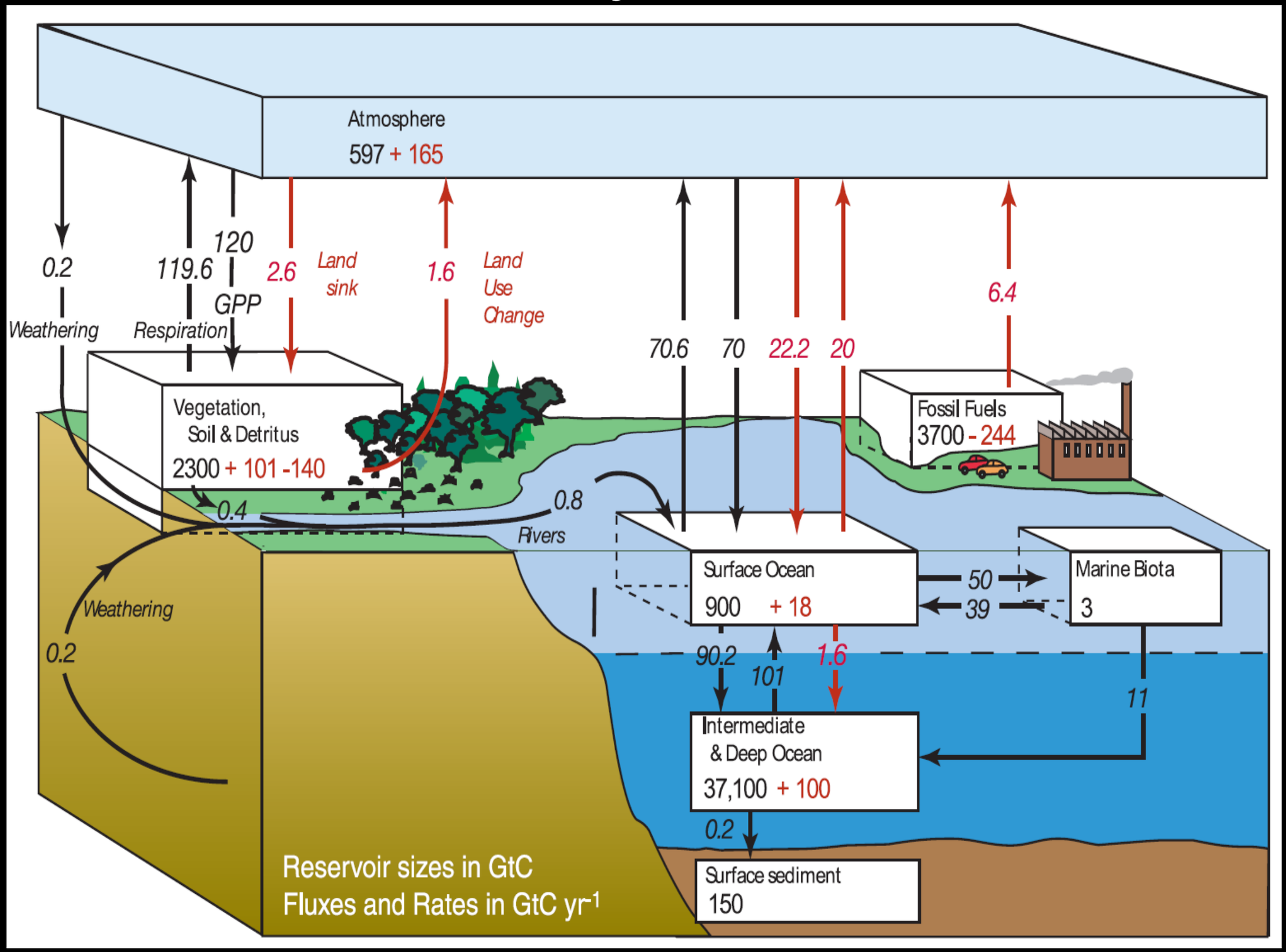
Report prepared for an objections hearing in the Land Court of Queensland regarding the proposed Wandoan Coal Mine

Mining tenement numbers ML 50229, ML 50230 and ML 50231 and draft environmental authority (mining lease) number MIN100550607

Emeritus Professor Ian Lowe
AO FTSE FQA

3 August 2011

Global carbon cycle for the 1990s



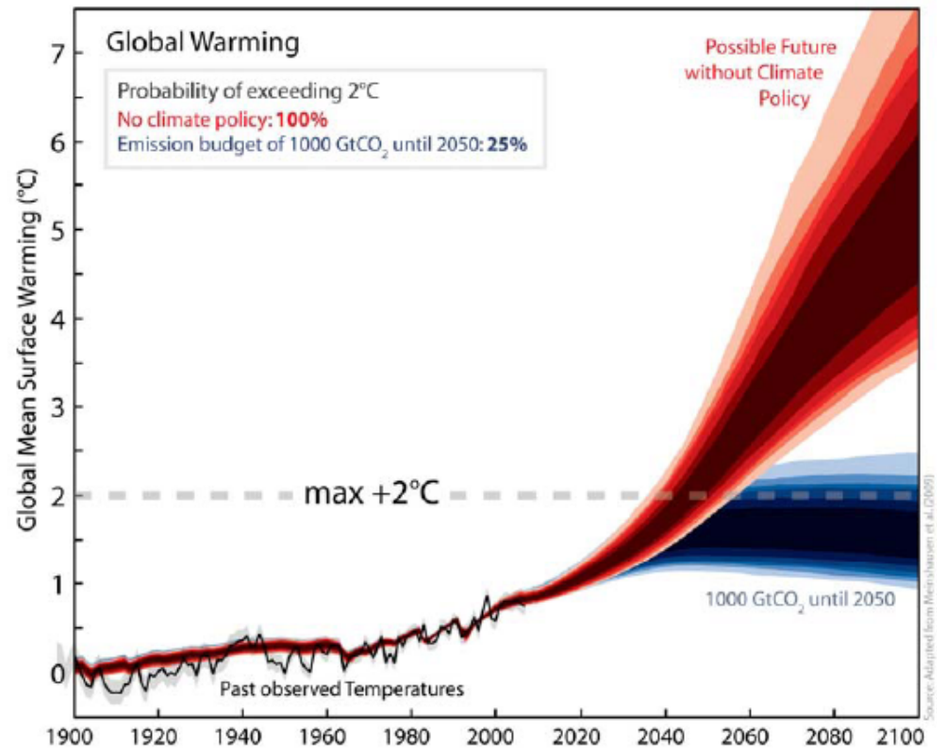
The carbon dioxide released by burning fossil fuels will continue to affect the atmosphere for a very long time.

About 7% will still be affecting the atmosphere in 100,000 years.

Archer (2005); IPCC (2007)

Dr Malte Meinshausen

Contribution of the Wandoan Coal Mine to climate change and ocean acidification



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Reference numbers:
MRA092-11 & EPA093-11 (MLA 50229)
MRA098-11 & EPA099-11 (MLA 50230)
MRA105-11 & EPA106-11 (MLA 50231)

Dr Malte Meinshausen

School of Earth Sciences, University of Melbourne, Australia
Potsdam Institute for Climate Impact Research, Potsdam, Germany

3 August 2011

Global Warming

Probability of exceeding 2°C
No climate policy: **100%**
Emission budget of 1000 $GtCO_2$ until 2050: **25%**

Possible Future without Climate Policy

Carbon Budget for <2°C

Global Mean Surface Warming (°C)

max +2°C

1000 $GtCO_2$ until 2050

Past observed Temperatures

0 1 2 3 4 5 6 7

1900 1920 1940 1960 1980 2000 2020 2040 2060 2080 2100

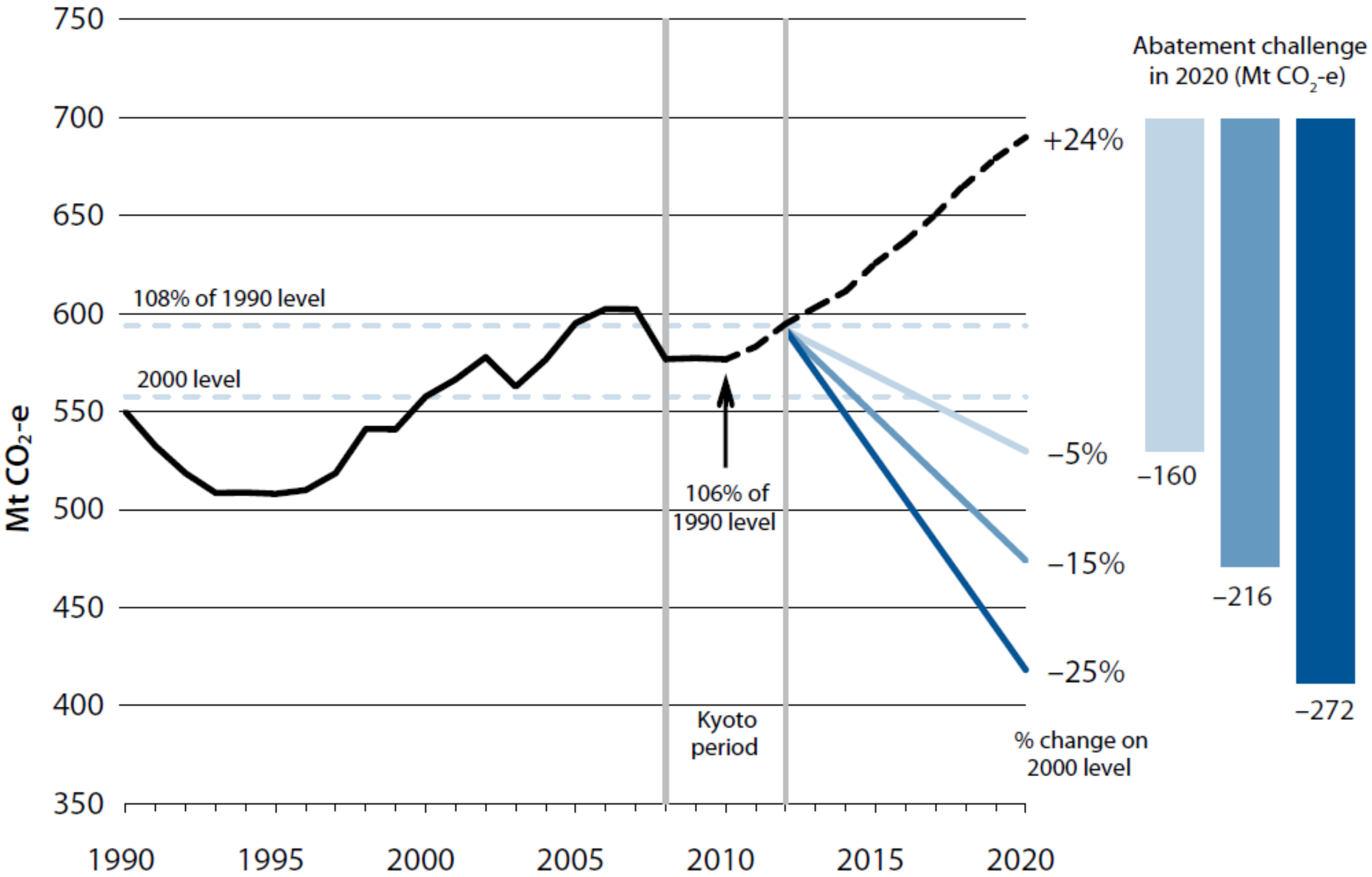
Source: Adapted from Meinshausen et al. (2009)

Source: Meinshausen (2009 / 2011)

The contribution of the Wandoan Coal Mine to the remaining Carbon Budget up to 2050 to achieve less than 2°C warming (Nb. 357Gt CO_2 has already been emitted during 2000-2011) (Meinshausen 2011)

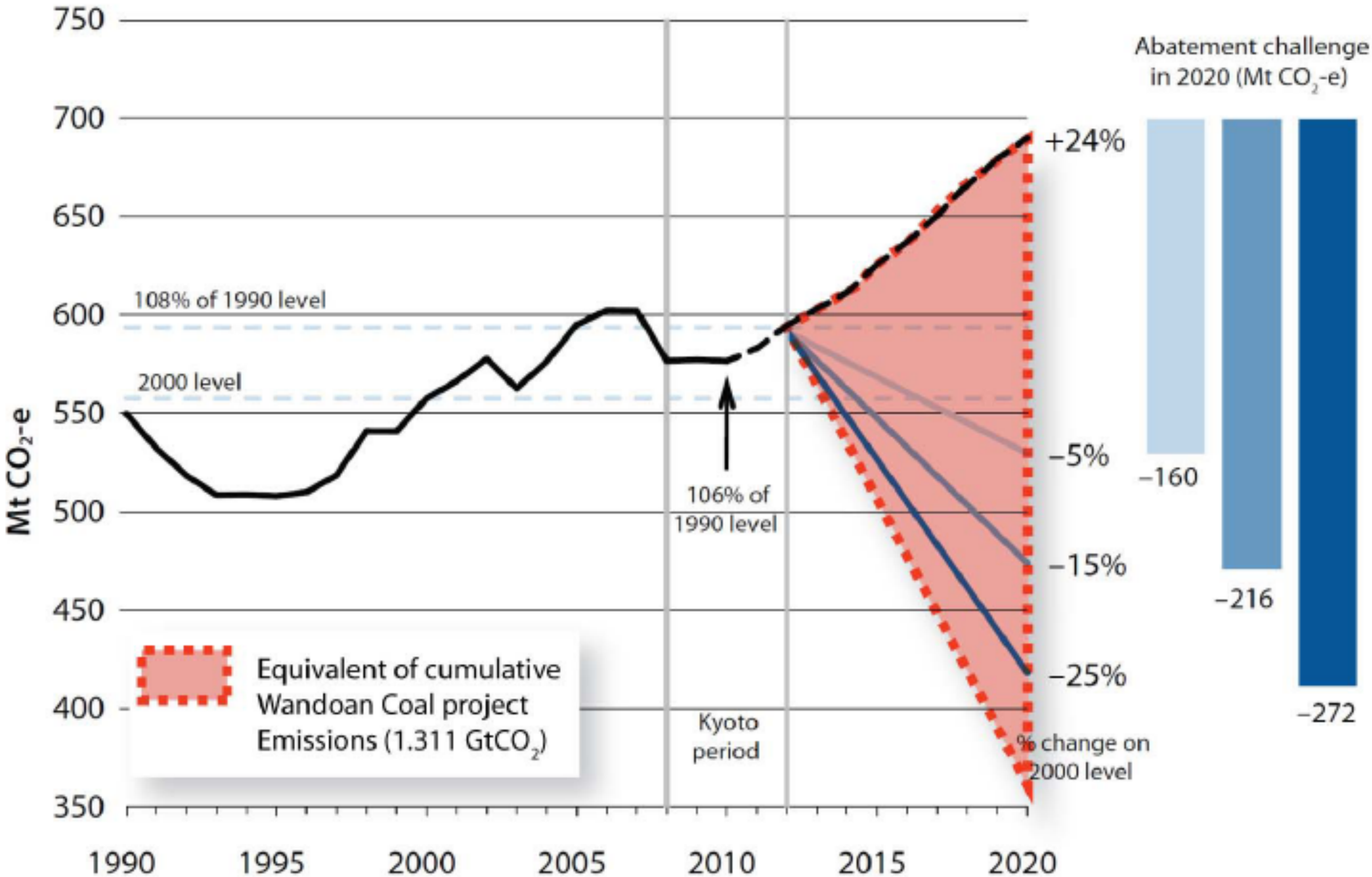
Carbon budget 2011-2050 ($GtCO_2$)	Probability of exceeding 2°C (%)	Probability of remaining below 2°C (%)	Percentage contribution of mine to remaining budget based on 1.311 $GtCO_2$ of emissions (%)	Fraction mine contributes to budget based on 1.311 $GtCO_2$ of emissions
529	20	80	0.25	1/403rd part
643	25	75	0.20	1/490th part
1080	50	50	0.12	1/824th part

Figure 2.3: Australia's emissions trends, 1990 to 2020



Source: Garnaut (2011) *The Garnaut Review 2011*, p27 citing Australian Government (2010), *Australia's emissions projections 2010,* Department of Climate Change and Energy Efficiency, p8.

Australia's emissions trends, 1990 to 2020



(Meinshausen 2011)

Professor Ove Hoegh-Guldberg

The current and future impacts of climate change and ocean acidification on the Great Barrier Reef

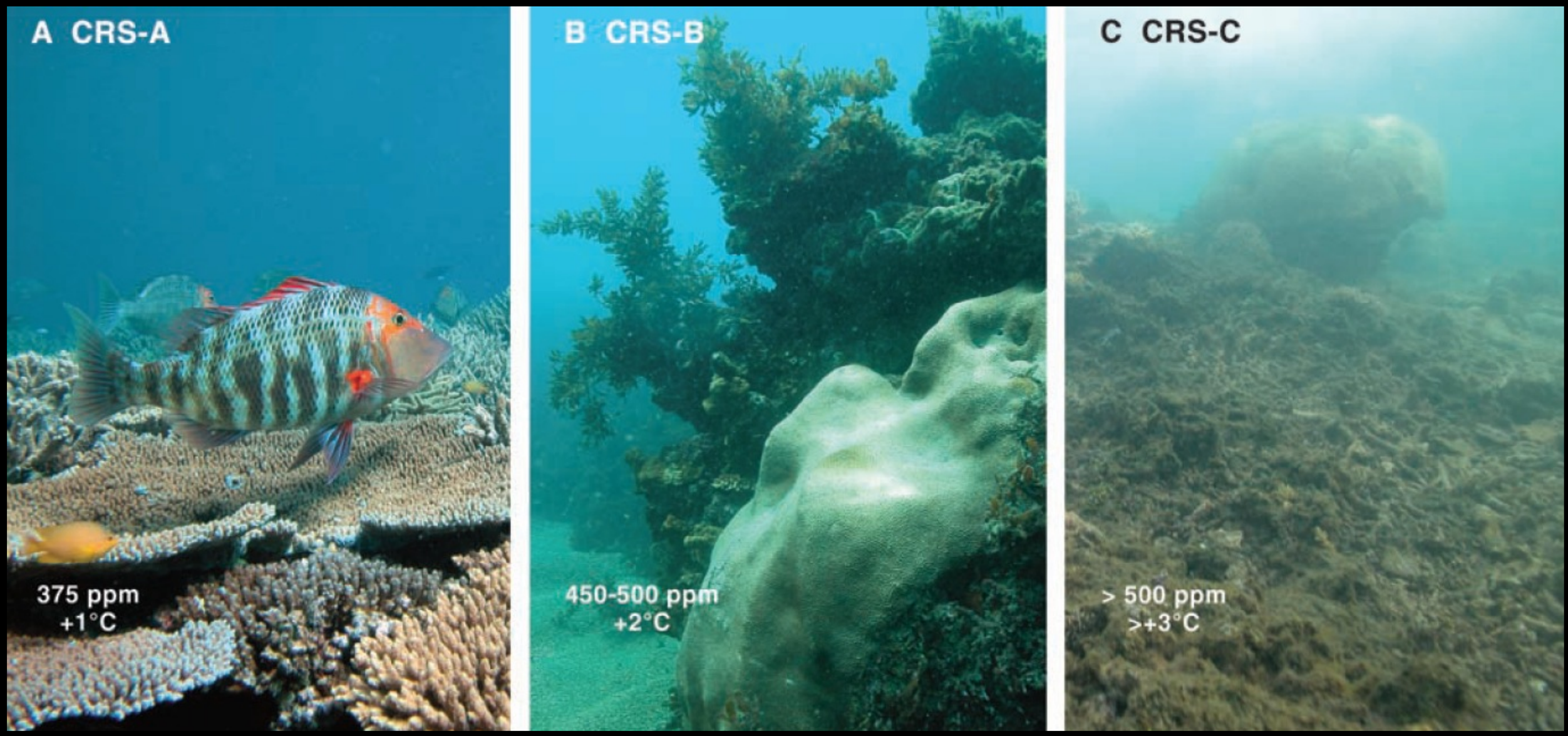
Report prepared for an objections hearing in the Land Court of Queensland regarding the proposed Wandoan Coal Mine

Reference numbers:
MRA092-11 & EPA093-11 (MLA 50229)
MRA098-11 & EPA099-11 (MLA 50230)
MRA105-11 & EPA106-11 (MLA 50231)

Professor Ove Hoegh-Guldberg
Director, Global Change Institute
The University of Queensland

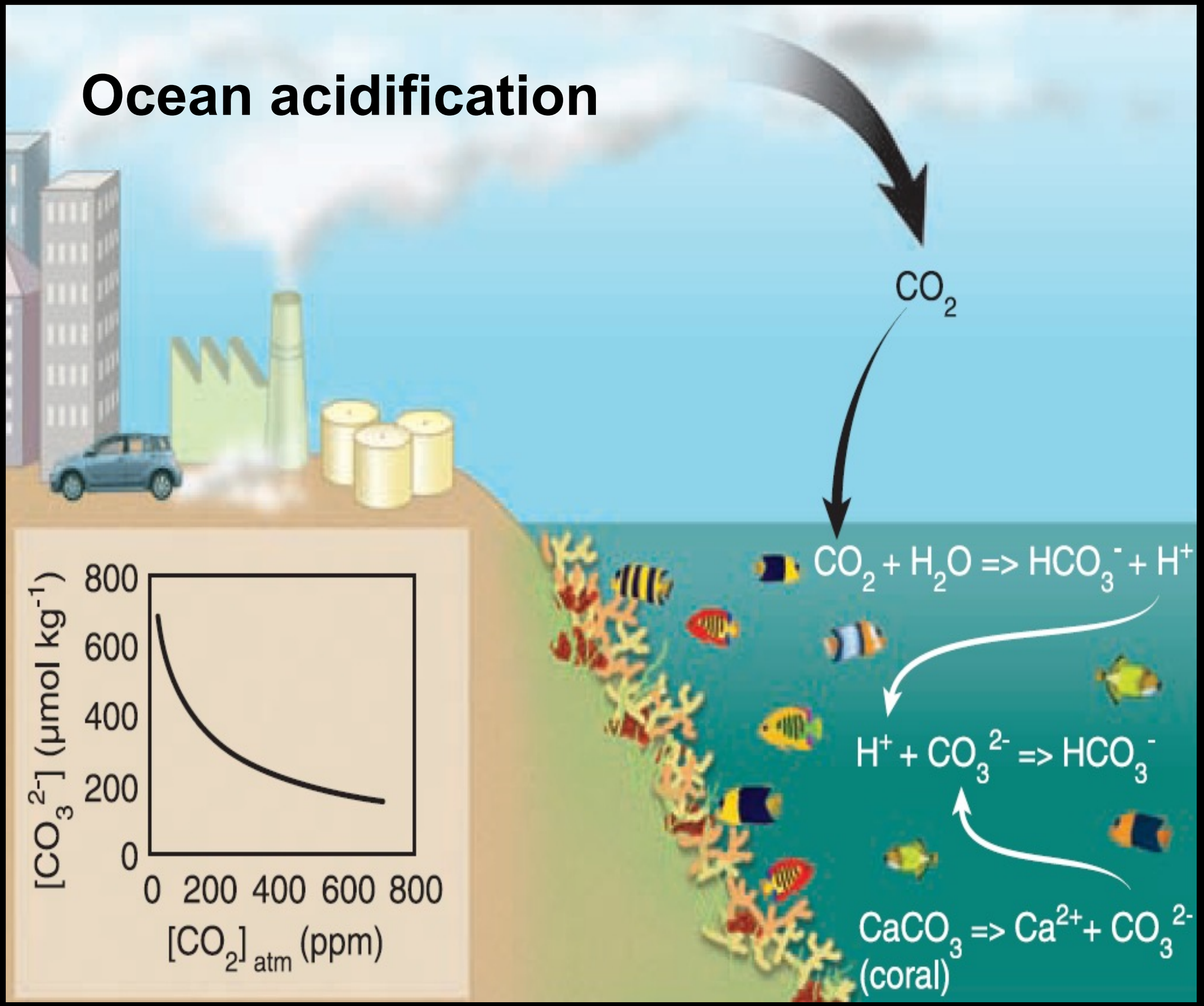
3 August 2011

Professor Hoegh-Guldberg's (unchallenged) evidence: coral reefs under three climate change & ocean acidification futures



Source: Hoegh-Guldberg et al (2007) Vol 318 *Science* 1737

Ocean acidification



Source: Hoegh-Guldberg et al (2007) Vol 318 *Science* 1737

Hans Hoegh-Guldberg

Economic Impacts of Climate Change on the Great Barrier Reef

Image source: Toby Hudson (2010)

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Mining tenement numbers ML 50229, ML 50230 and ML 50231 and draft environmental authority (mining lease) number MIN100550607

Hans Hoegh-Guldberg
Principal of Economic Strategies Pty Ltd
4 August 2011

Xstrata Coal did not dispute the science of climate change, ocean acidification or the expected impacts on the Great Barrier Reef.

Xstrata coal admitted:

Reducing emissions from the use of coal

Xstrata is the largest exporter of thermal coal in the world, meeting approximately 1.5% of global demand. Coal is an abundant, reliable and relatively low-cost energy source and, as such, we believe it has a critical role to play in ensuring energy security and economic growth over the coming decades. As a source of energy, it is a vital part of the global energy mix, representing around a quarter of overall demand, and around 60% of proven reserves. It is anticipated (IEA statistics) that the rapid growth of emerging markets, particularly Brazil, India, Russia and China, will increase the proportion of coal in the overall energy mix to 30% by 2030.

Coal is an especially important energy resource for countries that lack any significant oil and gas reserves and would otherwise be dependent on imports from other countries. We believe that, in addition to coal, all sources of energy will be required to satisfy the world's growing energy needs, including other fossil fuels, renewables and nuclear.

At the same time, we also fully recognise that the current and predicted levels of GHG emissions associated with the burning of fossil fuels (of which coal is most polluting in terms of GHG emissions per btu produced) under a business-as-usual scenario are unsustainable and need to be addressed with considerable urgency and innovation.

Statutory structure for decision:

Object of Environmental Protection Act 1994 (Qld) (EPA):

3 Object

The object of this Act is to protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (***ecologically sustainable development***).

Duty of the Land Court under EPA

5 Obligations of persons to achieve object of Act

If, under this Act, a function or power is conferred on a person, the person must perform the function or exercise the power in the way that best achieves the object of this Act.

Considerations for decision:

223 Matters to be considered for objections decision

In making the objections decision for the application, the Land Court must consider the following—

(a) the application documents for the application;

(b) any relevant regulatory requirement;

(c) the standard criteria; …

Considerations for decision:

standard criteria means—

(a) the principles of ecologically sustainable development as set out in the ‘National Strategy for Ecologically Sustainable Development’; …

Principles of ESD:

- decision making processes should effectively integrate both long and short-term economic, environmental, social and equity considerations

- ...

- the global dimension of environmental impacts of actions and policies should be recognised and considered ...

Xstrata's submissions

"stopping ... this mine will not reduce the amount of greenhouse gas emissions which will occur [because] the coal that this mine would have produced will be replaced by coal produced elsewhere."

Friends of the Earth's submissions

"An activity that is unsustainable does not become sustainable because others are doing similar things.

It does not become sustainable simply because, if it did not proceed, someone else would do it in another place."

Friends of the Earth submissions:

"The Court's duty under s 5 of the EPA is to perform its function and exercise its powers "in the way that best achieved the object of the Act" of ecologically sustainable development. This mine does not represent ecologically sustainable development and seeking to point to other, equally unsustainable development, in other jurisdictions does not change that fact. In such circumstances, the Court must recommend refusal of the application for the environmental authority under the EPA."

Key points

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2. Existing environmental laws have a wide scope to be applied consistently with Wild Law principles.

Will we leave the Great Barrier Reef for our children?

Photo: Brooke Walters