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**Media contacts** 

**Derec Davies** Friends of the Earth 0421 835 587

**Tina McElligott** Friends of the Earth 0401 740 440



# BACKGROUND INFORMATION

Swiss based mining giant Xstrata Coal Queensland is applying to the Queensland Government for mining lease and environmental approvals to open one of the largest open-cut coal mines on earth. The proposed mega-mine is located near the town of Wandoan, approximately 400 km northwest of Brisbane. The proposed mega-mine will extract 30 million tonnes of coal per year, with the potential to expand to 40 million tonnes per year. The coal from the mine will be sold and burnt in coal-fired power stations for electricity generation. The mining lease applications cover an area of 320 km<sup>2</sup> of mostly agricultural land. The proposed Wandoan Mega Coal Mine is the first stage of the gargantuan coal expansion into the Surat Basin coal deposits. The development of the Surat Basin coal deposits operations marks a new 'dirty phase' in energy resource development in Australia. The Wandoan Mega Coal Mine operation is being run by Xstrata Coal Queensland Pty Ltd (75%), ICRA Wandoan Pty Ltd, and Sumisho Coal Australia Pty Limited. Xstrata plc is a multinational mining giant, with headquarters in Switzerland.

The proposed open-cut mine will extract 30 million tonnes of coal per year, with the potential to expand to 40 million tonnes per year. The mining operations require the development of substantial new rail, port and water supply infrastructure in the region. This infrastructure will be partly funded and subsidised by taxpayers through the Queensland Government. These infrastructure projects will also cause substantial environmental impacts.



#### Infrastructure

The new Surat Basin Rail project requires 220 km of rail line connecting Wandoan with the Moura-Gladstone Line to transport the coal the Gladstone. The coal will be shipped from the either:

- The proposed Wiggins Island Coal Terminal in the Port of Gladstone to be built by the Queensland Government or
- The Balaclava Island Coal Export Terminal, to be built by Xstrata Coal Queensland Pty Ltd.

## The Mega Mine also requires a new water supply for processing the coal from either:

- Proposed new Nathan Dam and Glebe Weir on the Dawson River;
- New bore fields in the Great Artesian Basin; or
- Water from coal seam gas (CSG) operations via the Southern CSM water supply pipeline

The Nathan Dam and Glebe Weir that were proposed by the Queensland Government owned Sunwater has already been rejected by the Commonwealth Government under the Environment Protection and Biodiversity Conservation Act (EPBC) due to its potential impacts on the Great Barrier Reef.

#### **Carbon emissions and impacts**

Coal is one of the most carbon intensive fossil fuels and is a major source of global greenhouse emissions. The proposed mega coal mine at Wandoan will contribute an estimated 0.15% of global carbon emissions each year over the next three decades proposed for mining. Once these emissions enter the atmosphere they will contribute to global climate change, which is causing unprecedented climate impacts in Queensland.

There has been an observed increase in temperatures, more severe storms and cyclones and more intense droughts in Queensland, which will worsen over the coming decades.



# **OPPORTUNITIES**

#### 22 August 2011

Dr Bradley Smith and Friends of the Earth's barristers will be available on Monday to open this landmark court case. The court case will be the first ever in Australia to argue exclusively for outright refusal of a coal mine based on climate change impacts.

#### 22 August 2011

Dr Richard Denniss from the Australia Institute will be available for interviews and comments to discuss the Wandoan Mine and Australia's resource sector in relation to the new report 'Mining the Truth: re tax, royalties, and subsidies' and to outline why Qld can absolutely afford to say no to Wandoan due to its net negative impact on our economy.

#### 23 August 2011

Drew Hutton from Friends of the Earth will be available for comment and interviews to discuss the impacts of the mine on climate change and land owners.

#### 26 August 2011

Dr Bradley Smith, Drew Hutton and Wandoan land owners will be in Dalby Qld for the court to hear from land owners.

#### 29 August 2011

Dr Bradley Smith will be available for comment and interviews to discuss the trial and experts.

#### 29 August – 2 September 2011

(this may extend until the 6 September 2011)

Dr Bradley Smith will be available for comment and interviews and support journalists with technical questions.

#### 29 August 2011

Dr Charlie Vernon, will be available for interviews as an expert on the impacts of climate change on the Great Barrier Reef in relation to new coal mines.

#### 30 August 2011

Professor David Karoly, will be available for interviews as an expert in climate change to discuss climate change impacts in relation to new coal mines.

#### 2 September 2011

Dr Bradley Smith, Friends of the Earth's barristers, and select experts will be available for interviews and comments to discuss the outcomes and specifics of the case

#### 3 September 2011



#### The information below forms part of Friends of the Earth formal objection to the Land Court of Queensland.

# REASONS FOR OBJECTING THE MINE

The mine will cause severe and long-term adverse environmental impacts to Queensland due to the large emission of greenhouse gases from the mining and use of the coal from the mine contributing to anthropogenic climate change and ocean acidification.

Land owners and Wandoan residents are objectors to the mine. They are objecting to the impacts on issues including groundwater, agricultural production, and location of the mine to the township and residents homes and resulting noise impacts.

The mine will prejudice the public right and interest due to the large emission of greenhouse gases from the mining and use of the coal contributing to anthropogenic climate change and ocean acidification in addition to the loss of agricultural land that will result from the mine.

It is not feasible to capture and store indefinitely the greenhouse gases produced by the mining and use of the coal from the mine and thereby avoid them contributing to anthropogenic climate change and ocean acidification. The mine is not consistent with protecting 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). Large emissions of greenhouse gases will result from the mining and use of the coal from the mine contributing to the disruption of the climate and ocean pH, which are ecological processes on which life depends, through anthropogenic climate change and ocean acidification and the consequential economic, social and environmental harm that will occur to Queensland.

The mine will cause serious environmental harm to the character, resilience and values of the receiving environment, the atmosphere and the oceans, due to the large emission of greenhouse gases that will result from the mining and use of the coal from the mine contributing to anthropogenic climate change and ocean acidification. The resilience of the atmosphere to maintain a climate similar to that on which civilization developed and to which life on Earth is adapted has already been exceeded. To maintain a safe climate atmospheric carbon dioxide will need to be reduced from its current 390 parts per million (ppm) to at most 350 ppm, but likely less that. Approval of the mine will further exacerbate the current environmental harm to the atmosphere, oceans and climate.

- 1. Xstrata will rely on 22 witnesses (19 expert witnesses and 5 lay witnesses)
- 2. Land owners (including all the landowners and their experts) will rely on 12 witnesses.
- 3. Friends of the Earth will rely on 4 expert witnesses.

# **EXPERTS PROVIDING EVIDENCE**

#### The Friends of the Earth experts are:



**Professor Ian Lowe,** emeritus professor at Griffith University an internationally recognised expert on environmental issues, energy, science and technology who was made an Officer of the Order of Australia in 2001 for services to science and technology, especially in the area of environmental studies.



#### Hans Hoegh-Guldberg,

an internationally recognised expert on the valuation of climate change impacts on coral reefs, having most recently completed a study on climate change impacts on the Florida Keys for the American National Oceanic and Atmospheric Administration (NOAA).



**Dr. Malte Meinshausen,** senior research fellow at the renowned Potsdam Institute for Climate Impact Research (PIK) in Germany.



#### **Professor Ove Hoegh-Guldberg,**

professor of Marine Studies the University of Queensland, Director of the Global Change Institute and lead author for the Oceans chapter of the next IPCC report.



#### 25 February 2011

Historic case objection lodged with the Qld Land Court to stop the Wandoan Coal Project based on contribution to climate change.

#### 13 May 2011

Xstrata request to Friends of the Earth for further and better particulars of the grounds of the Objections.

#### 10 June 2011

Friends of the Earth responds to Xstrata's request for further and better particulars.

#### 8 July 2011

Xstrata provided a list of proposed expert and lay witnesses and any reports, statements or materials they seek to rely upon.

#### 5 August 2011

Friends of the Earth provided a list of proposed experts and lay witnesses and any reports, statements or materials they seek to rely upon.

#### 16 August 2011

Xstrata replied to the evidence of Friends of the Earth and the Landholders.

#### 22 August 2011

Commencement of 2 week hearing in Brisbane. Week 1 focus on land owners objections – impacts of mine to water.

#### 26 August 2011

Court session held in Dalby Qld to hear directly from land owners.

#### 29 August 2011

Week 2 commences back in Brisbane. As climate change evidence is presented, this evidence is most likely to be in this second week.







# Some items below are embargoed until presented as evidence to Court sometime after 29 August.

#### Why is Friends of the Earth taking Xstrata to court?

Friends of the Earth (FoE) wants the Land Court of Queensland to reject the application on the grounds that the proposed mine will have adverse environmental impacts caused by colossal greenhouse gas emissions from the mined coal. The objection has been lodged as part of the formal Environmental Impact Statement (EIS) process for the mine. The rejection includes mining leases under the Mineral Resources Act, and an environmental authority under the Environment Protection Act, Queensland.

## How large are the greenhouse emissions caused by the proposed mine?

The coal from the mine will create approximately 1.3 giga tonnes (billion tonnes) of carbon dioxide equivalent over the 30 year life of the mine. Every year the coal from the mine will create a sizable 0.15% of global emissions. The primary emissions from the mine are from the burning of coal, and a small fraction caused by the mining operations.

**EMBARGOED** Total emissions from the mine would completely wipe out Australia's current greenhouse target of a 5% reduction by 2020 to be achieved by measures including the carbon price.

# What are the potential environmental impacts from the mine?

The Great Barrier Reef could be wiped out by climate change over the coming decades, under spiralling greenhouse emissions. The impacts from climate change include mass coral bleaching and reduced coral growth. The Great Barrier Reef is an international icon, with some of the highest diversity of coral reefs, tropical fish, turtles and dugongs. The addition of further carbon dioxide to the atmosphere by the Wandoan mine will directly impact on the Great Barrier Reef and reduce its services.

# What are the potential economic impacts from the mine?

Great Barrier Reef Marine Park Authority figures show that the reef generates over 60 000 jobs and contributes over \$5 billion to Australia's economy every year . Over one million tourists from all over the world come to Queensland to visit the Great Barrier Reef World Heritage Area each year.

**EMBARGOED** Economic modelling shows that the total economic loss from impacts on the Great Barrier Reef from coral bleaching would be over one billion dollars a year over the next century.

# What are the potential climatic impacts from the mine?

The impacts of the proposed mine will increase the likelihood, severity and longevity of global warming and be a significant step towards mean global temperatures exceeding 20C above preindustrial levels. The proposed mine will increase to the probability, severity and longevity of ocean acidification.

# Will the case argue that impacts from the emissions resulting from the burning of the coal?

The objection includes consideration of all of the emissions from the mining, transport and use of the coal in assessing the impact of the proposed mine on the climate and ocean acidification. This means regardless of where the burning and use of the coal occurs should be considered when the applicant is applying for environmental approval.

# What would Friends of the Earth see as constitutes a court win?

The mine is stopped. Friends of the Earth is asking the Land Court to recommend that the applications for mining lease and environmental authority be refused due to the impacts from the large emissions of greenhouse gases.

# FACTS & FIGURES

#### Area

### The Wandoan mega mine covers 32 000 hectares (320 Sq km) of agricultural land and is:

- Considerably larger than the country (and island) of Malta
- Larger than 2x Bribie Island, or larger than Stradbroke Island

#### **Emissions**

The coal mined at Wandoan will release a massive 41.6 mega tonnes of carbon dioxide per year for 30 years.

- This is larger than the emissions of most countries (150 countries emit less each year)
- This is roughly equivalent to the emissions from 72 countries combined
- Roughly equivalent to the fossil fuel emissions of New Zealand
- This is approximately 1/5 of total Queensland annual emissions
- This is more than double the annual household emissions of all Queenslanders combined

#### **General impact on communities**

#### There are 33 new mines, 5 expansions and 40 000 Coal Seam Gas wells under development and approval in Queensland right now.

- Rural communities are being swallowed by mines.
   Regional Queensland is losing communities to mines staffed by fly-in-fly-out workers.
- The Queensland rural landscape is being destroyed

   including special landscapes such as irreplaceable
   farmland and nature refuges.

#### **General impact on ecosystems**

The mine requires supporting infrastructure that will see a rail line extend to the coast. Development of the Wiggins Island Coal Terminal requires significant disruption to marine life with works including reclamation of intertidal areas to be bunded and infilled with dredge material, supporting a two kilometre jetty structure, a six berth wharf (originally four berths), independent berthing and mooring structures and dredging from the Targinnie Channel to the new berth. The terminal is adjacent to Qld's sinking sea grass pastures supporting Dugongs and Turtles .



All items below are embargoed until presented as evidence to Court sometime after 29 August

# "CUOTES"

#### **Professor Ian Lowe**

This project, if approved, would add about 1.3 billion tonnes of CO2 equivalent to the atmosphere. Its annual emissions would be greater than the total figure for New Zealand and about 7.4 per cent of Australia's national total.

...the 2010 report by Beyond Zero Emissions and the Institute of Energy at the University of Melbourne showed that we could move to supply Australia's power needs completely from a mix of renewables by 2020: roughly 50 per cent wind power, 40 per cent solar with storage and 10 per cent hydroelectricity.

#### **Doctor Malte Meinshausen**

...the reported estimate of cumulative emissions from the Wandoan coal project would equate to more than three years of current annual fossil CO2 Australian emissions...

If the total emissions from the Wandoan mine were taken into account in Australia's emission, this one mine would completely wipe out Australia's current target of a 5% reduction on emissions by 2020, to be achieved by measures including the carbon price.

#### **Professor Ove Hoegh-Guldberg**

The addition of further carbon dioxide to the atmosphere by enterprises such as the Wandoan mine will directly damage the Great Barrier Reef and reduce its ecological services, and hence the income and livelihoods of people both here in Australia and overseas."

#### **Mr Hans Hoegh-Guldberg**

Approval of the proposed mine would be consistent with a "business-as-usual" global greenhouse gas emission scenario, which includes the continued extraction and burning of fossil fuels. 'Business-as-usual' greenhouse gas emissions would result in economic impacts on the Australian economy from lost Great Barrier Reef tourism in the order of hundreds of millions of dollars by the end of the decade, rising to billions of dollars as soon as the middle of the century.

The economic loss from impacts on the Great Barrier Reef from coral bleaching due to climate change would be at the very least one billion dollars per annum over the next century. The total economic impacts flowing from climate change impacts on the Great Barrier Reef is likely to be much higher than these estimates.



#### Websites

Six Degrees http://www.sixdegrees.org.au

Environmental Law http://www.envlaw.com.au/wandoan.html

Wandoan Coal Project http://www.wandoancoalproject.com.au

#### Transcripts

Court trial transcripts will be available daily from 6 or 7pm.

#### Images

Friends of the Earth has access to small collection of images available for use, this include recent photographs of Wandoan and surrounding lands, and aerial images of coal mines in NSW.











