

# The Great Barrier Reef

THE  
GREENS



***Australia's Great Barrier Reef is the world's largest coral reef. It is one of the seven wonders of the natural world, comprising over 3,000 individual reef systems, cays and islands. As the home of an amazingly abundant and diverse marine life, the Great Barrier Reef has an immense universal value, which has been recognised by its inclusion on the World Heritage List.***

While the Great Barrier Reef Marine Park Authority (GRMPA) is recognised around the world as providing world's best practice in marine sanctuary management, the reef continues to face an uncertain future. In fact the most recent GBR Outlook Report from GRMPA found the overall outlook for the Great Barrier Reef is poor, concluding that "even with the recent initiatives to improve resilience, catastrophic damage to the Great Barrier Reef ecosystem may not be averted."<sup>1</sup>

**The Australian Greens Great Barrier Reef Plan addresses three of the key challenges facing the GBR:**

- ***Climate change;***
- ***acidification of the reef;***
- ***Danger of increasing shipping through the reef; and***
- ***Declining water quality due to pollution run-off from the land.***

**The Greens will:**

- Adopt measures to reduce our greenhouse gas emissions and move towards a clean healthy zero carbon economy. We have campaigned for an emissions trading scheme or carbon tax as part of a broad suite of policies which also include initiatives for renewable energy, energy efficiency, clean transport and forest protection;
- Extend the requirements for satellite tracking of vessels on board vessels for all ships transporting coal and gas throughout the reef.
- Call on the government to actively pursue an extension of compulsory pilotage across

1 GRMPA, "Great Barrier Reef Outlook Report 2009" [http://www.gbrmpa.gov.au/\\_\\_data/assets/pdf\\_file/0005/40739/Outlook\\_InBrief\\_Web.pdf](http://www.gbrmpa.gov.au/__data/assets/pdf_file/0005/40739/Outlook_InBrief_Web.pdf)

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the entire reef for large transport ships through the relevant international forums.

- Ban the use of the pesticides, particularly Diuron, Atrazine and Ametryn, which found in high concentrations in run-off from the land. They have a long half-life, are highly water soluble and are most likely to reach the Great Barrier Reef and cause harm.

## BACKGROUND

The Great Barrier Reef has more than 400 different types of coral; over 1,500 species of tropical fish; over 200 species of birds; around 20 types of reptiles; is the breeding ground for humpback whales; and is home to endangered species such as the dugong and the Green Sea turtle. The beauty of the flora and fauna is obvious. But protecting the reef is about more than conserving the scenery.

The Great Barrier Reef contributes a substantial amount to the Australian economy. Tourism brings in around \$5 billion each year; commercial fishing brings in \$140 million annually; recreational use of the Reef generates around \$150 million per year. The industries that rely on the Reef create more than 60,000 jobs.

Protection of the Great Barrier Reef will ensure the conservation of marine wildlife, security for local communities and industries and significant economic benefits. However, the Reef is facing a threatened future, with four key problems that need immediate action: impacts of climate change; impacts of shipping; and pollution run-off from the land.

## THE GREENS' PLAN

### *Climate Change*

Coral reefs are identified as highly vulnerable to the impacts of climate change. Coral bleaching, due to rising sea temperatures, has put coral reefs around the world in crisis. While the Great Barrier Reef suffered less damage than others, predictions of future water temperatures rises could result in more damage every year. Rising sea temperatures will also impact on many of the Reef's marine wildlife. Other effects of climate change, such as rising sea levels, increased cyclones, and rainfall and run off, would devastate the Great Barrier Reef.

The Greens have long recognised the threat of climate change and have developed a comprehensive plan to reduce our greenhouse gas emissions and move towards a clean

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healthy zero carbon economy. We have campaigned for an emissions trading scheme or carbon tax as part of a broad suite of policies which also include initiatives for renewable energy, energy efficiency, clean transport and forest protection.

## ***Ocean acidification***

Ocean acidification represents one of the greatest threats to the Reef. Acidification of the ocean occurs due to increased levels of dissolved CO<sub>2</sub> and has the potential to disrupt the entire ecology of our oceans. Acidification is impacting on the Great Barrier Reef harming the growth and strength of the reef's corals.<sup>2</sup>

The rate and severity in which the impacts of climate change occur are directly related to the amount of greenhouse gas emissions in to the atmosphere. Huge amounts of greenhouse gas emissions come from burning coal. Australia's continued export of coal directly threatens the Great Barrier Reef. The expansion of Abbot Point in Queensland and the plan for a new Latrobe Valley coal-fired plant in Victoria are examples of a government ignoring the need for a move to renewable energy sources.

## ***Compulsory Satellite Tracking and Pilotage***

The potential risk of ships being grounded and spilling oil and coal threatens the Great Barrier Reef, as the Shen Neng 1 shipping disaster highlighted. The *Shen Neng 1* ripped a giant hole in the reef, spilt tonnes of oil, and released poisonous paint chemicals on to the reef. The Greens called for a full Senate inquiry into the disaster. A single ship wreck significantly affects the Reef, and with around 10,000 vessels travelling through the Great Barrier Reef each year, the probability of more damage is high. The Reef is being abused as a 'coal super-highway'.

The International Maritime Organisation declared the Great Barrier Reef a "Particularly Sensitive Sea Area" in 1990. As a result, the Australian Maritime Safety Authority requires only small parts in the northern areas of the Reef to have satellite tracking of vessels and licensed pilots on board vessels.

<sup>2</sup> See statement by 13 leading marine scientists in November 2009 [http://www.coralcoe.org.au/news\\_stories/parlbriefing.html](http://www.coralcoe.org.au/news_stories/parlbriefing.html)

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Through the use of satellite tracking a vessel can be accurately and timely located; this helps reduce the risk of collisions and helps with the management of wrecks, particularly oil spills. The use of licensed pilots greatly increases the ability of a ship to navigate the Great Barrier Reef, reducing the risk of groundings. And as it would only cost around \$10,000 per pilot for a ship to travel the entire length of the reef, it is an easily manageable fee for ships carrying multimillion dollar cargoes to pay.

The Greens propose extending these two initiatives to cover the entire reef area. We call on the government to pursue an extension of compulsory pilotage in the relevant international forums.

## *Improving Water Quality*

The State of the Reef report acknowledges that declining water quality is a major threat to the reef's ecosystems and that the Great Barrier Reef continues to be exposed to increased levels of sediments, harmful nutrients and pesticides. This is causing die-back of mangroves and increasing algae on the coral reefs. The report highlights that the Reef "receives the runoff from 38 major catchments which drain 424 000 km<sup>2</sup> of coastal Queensland" and that despite increased resources and improvements in land management, progress is slow and patchy.<sup>3</sup>

A major contributing factor to the decline in the Reef's water quality is run-off of pesticides from agricultural land. These chemicals are present in the Reef at levels likely to cause environmental harm. The efforts of the Reef Water Quality Protection Plan have not yet been effective in improving water quality with a new initiative including a 50% reduction in pesticides by 2013; however, the application of the precautionary principle would require preventing pesticides from entering the Reef waters at all.

Pesticides such as *Diuron*, *Atrazine* and *Ametryn*, have relatively long half-lives and high water solubility. High concentrations of these chemicals have been found in run-off from the land. As a result, they are the most likely chemicals to reach the Great Barrier Reef and cause

<sup>3</sup> GRMPA, "Great Barrier Reef Outlook Report 2009" [http://www.gbrmpa.gov.au/\\_\\_data/assets/pdf\\_file/0005/40739/Outlook\\_InBrief\\_Web.pdf](http://www.gbrmpa.gov.au/__data/assets/pdf_file/0005/40739/Outlook_InBrief_Web.pdf)

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harm. These chemicals are designed to kill weeds and are a significant threat to sea grasses and coral. Seagrasses are important for providing habitats for turtles and dugongs. If the seagrasses die then the turtles and dugongs will be in danger. The Greens propose banning the use of pesticides that have long half-lives and are damaging to the Reef.

The sea grass habitats of the turtles and dugongs are also being put at risk by the rush to exploit coal seam gas. The export of LNG requires new infrastructure such as wharves and underwater gas pipelines which involves extensive dredging. This has the potential to adversely affect the reef by destroying significant areas of sea grass as well as contributing to climate change.