

FACT SHEET

LADY ELLIOT ISLAND

Clean & Green

Lady Elliot Island (LEI) is part of the World Heritage listed Great Barrier Reef (GBR) which is one of the most diverse and complex ecosystems in the world. The GBR supports not only a range of marine life but also a range of human activities including tourism, fishing, ports and shipping activities, aquaculture and recreation.

The contribution of the GBR to the Australian Economy is estimated to be over \$5.4 Billion. Tourism is by far the largest contributor to economic activity, accounting for 94% of the contribution.

KEEPING THE GBR GREAT

In 1975, 99% of the GBR was declared a Marine Park to sustain its protection, wise use, understanding and enjoyment. Covering 348,000 square kilometres, the Great Barrier Reef Marine Park is the largest protected reef system in the world. It is also the world's largest World Heritage Area after being inscribed on the World Heritage List in 1981 for its outstanding and unique natural values.

The Great Barrier Reef Marine Park Authority (GBRMPA) is the agency responsible for ensuring the Marine Park and World Heritage Area is used responsibly and preserved for future generations. Zoning is the tool used by the GBRMPA which allows for activities on the reef such as tourism, fishing and recreation whilst at the same time ensuring the reef and its marine life are conserved.

The Reef surrounding Lady Elliot Island is a Green Marine National Park (No Take) Zone meaning NO fishing or collecting of natural items. Tourism is allowed in green zones but tourism operators must have a permit from the GBRMPA which outlines strict conditions to ensure the impact on the GBR is reduced as much as possible. The GBRMPA charge a daily fee (Environmental Management Charge) for each tourist that visits the GBR, which goes towards the management and conservation of this precious natural wonder.



Great Barrier Reef Marine Park Zoning

Image: GBRMPA

THREATS TO THE GBR

The GBR is a vast and complex ecosystem that has been built and maintained over many thousands of years. Humans are relative newcomers to the Reef and have brought some big changes which have impacted on the Reef's fragile ecosystem. These include:

- **Pollution and land runoff:** Sediments and nutrients, fertilisers, pesticides, toxic chemicals, sewage, rubbish, detergents, heavy metals and oil washed into rivers and out in to the Great Barrier Reef, where they can threaten plants and animals on the Reef. For example, excess nutrients on the reef also cause algae overgrowth which smothers coral and contributes to Crown of Thorns outbreaks that kill huge areas of coral.
- **Coastal development:** Development and the subsequent clearing of mangroves is a major cause of concern. Mangrove habitats are essential for many coastal species of fish, prawns and crabs as a nursery habitat. These animals in turn become an important part of the food chain for animals out on the reef.
- **Introduced species:** Exotic species have been introduced to the islands and waters of the Great Barrier Reef and has caused many native species to be displaced, threatening the fragile ecosystems.
- **Fishing:** Commercial and recreational fishing continue to put pressure on the Reef. Practices such as trawling remove the substrate and vital habitats. The bycatch of species such as turtles and birds is also a problem. The GBR is still vulnerable to the shark finning industry which is contributing to depleted shark populations.
- **Tourism:** The tourism industry can have some negative impacts on the reef but research has shown that through effective management it is a much smaller threat than other impacts. The education of reef visitors and tourism staff has helped reduce this impact. In addition, tourism operators have a vested interest in protection and conservation of the Reef.
- **Global climate change:** A large body of research suggests that humans are influencing the Earth's climate. Rising sea temperatures are already impacting the GBR and other reefs around the world causing large scale coral bleaching.

LEI is fortunate to be well protected from these threats. It is a Green Marine National Park (no take) zone, is not affected from mainland runoff due to its offshore location and has not been devastated by mass coral bleaching or Crown-of-Thorns Starfish due to its location on the southern boundary of the GBR.

BEST PRACTICE ON LEI

Lady Elliot Island Eco Resort has been awarded Advanced Eco Certification by Ecotourism Australia. The Resort has been recognised as one of the leading ecologically sustainable tourism operators on the Great Barrier Reef, providing guests with an opportunity to experience and learn about the Island's unique ecosystem with minimal impact.



The Resort is committed to protecting the environment and adheres to strict permit and lease conditions from the Great Barrier Reef Marine Park Authority (GBRMPA). Only a limited number of guests are allowed on the Island at any one time and all activities are conducted in accordance with best practice and minimal impact guidelines to ensure no damage occurs to the island or reef. Lady Elliot Island Eco Resort has developed and implemented both an Environmental Policy and Environmental Management System.

KEEPING LEI CLEAN AND GREEN

Lady Elliot Island Eco Resort strives to minimise its impact on the environment. We see ourselves as custodians of this precious little Island – charged with the responsibility of keeping both the Island and the surrounding reef in pristine condition for future generations.

To achieve these goals we are constantly trying to improve standards of our operation and implement eco-initiatives to make the island a role model in best environmental practice.

POWER FROM THE SUN

In consultation with the Great Barrier Reef Marine Park Authority (GBRMPA), an energy audit was conducted in 2007 with recommended actions for energy savings. This audit identified the opportunity to reduce carbon emissions, noise and the reliance on fossil fuels. As a result, the installation of our Solar Power Station was completed in December 2008. When installed, the state-of-the-art system was one of a kind in Australia. Since the inception of the station, diesel use and carbon emissions have been reduced by more than 80%.

Recognising the savings made since installing the system, resort management has invested in its expansion. The resort has added a third bank of batteries (bringing the total to 72) and increased the number of panels from 96 to 128. This has brought the system's renewable energy production capacity up from 20kw to 28kw and increased



LEI Solar Power Station

the storage capacity by 50%. These latest measures should help us reach our short-term goal of using less than 100 litres per day (down from 550 litres per day) to run the resort. Plans are in place to bring the total number of panels to 190 by 2014. Ultimately, our long term goal is to minimise our diesel generator reliance and have it only as a backup by implementing additional improvements.

CONTINUING THE JOURNEY

Energy related savings are only the tip of the iceberg for LEI. Waste reduction and water related savings have been made equally important. Existing initiatives include:

- Staff and guests are encouraged to separate all waste items, which are flown off to recycle depots
- Food waste and organic matter is composted on the island in a pit system
- Glass bottles are crushed into sand on the island using a very capable 'oppressor'. This is a more eco-friendly method than transporting back to the main land for processing
- Drinking water on the island is produced by a reverse osmosis desalination plant (the number of birds and their waste, prevents us from using rain water)
- Minimising use of disposal items - LEI became the first island on the GBR to eliminate selling bottled water in 2012
- Water conservation measures such as half flush toilets and water saving shower heads
- Laundering is undertaken on the mainland
- A low-maintenance, efficient wastewater treatment plant was installed in 2012 which produces high quality treated water for vegetation irrigation and is compliant with best practice
- Use of chemical free, biodegradable cleaning products and recycled office and toilet paper
- Education of our guests through tours and activities raises environmental awareness

FUTURE **ECO** INITIATIVES

Lady Elliot Island Eco Resort recognises that sustainability is an ongoing journey with incremental steps continuing to be taken as knowledge and technology improves. For example, the introduction of a wind powered generator to further reduce diesel usage and carbon emissions is currently being investigated and LED lights will be installed in new construction or renovations on the island.

WHAT CAN **YOU** DO?

- Follow best practice guidelines for all activities
- Do not touch, harass, disturb or feed wildlife or marine life
- Use all resources sparingly, for example lights and water (especially on LEI)
- Place all rubbish in the relevant bins provided
- Support organisations that are working to protect the GBR such as the Australian Marine Conservation Society, EarthWatch, Project Manta and REEFCHECK

This project is co-funded by the Australian Government under T-QUAL Grants.