

Sustainable Management at Baillie Lodges

Baillie Lodges is a collection of environmentally sustainable luxury lodges in remarkable wilderness destinations. A proactive approach to environmental management is essential the guest experience at each property, to the ongoing well-being of the destination and to the sustainability of business in experiential tourism.

Baillie Lodges' management holds an impressive track record of operating environmentally considered lodges in remote locations; they are often included in World Heritage-listed regions or bordering national and marine parks. Baillie Lodges founder James Baillie formerly led the establishment and operation of resorts in such standout natural locations as Queensland's Lizard, Heron and Bedarra Islands, Silky Oaks Lodge in the Daintree Rainforest and Tasmania's Cradle Mountain Lodge. James has brought to the Baillie Lodges collection a wealth of practical knowledge and experience in high-end nature-based tourism.

Baillie Lodges was created in 2003 with the opening of Capella Lodge on World Heritage-listed Lord Howe Island, followed in 2008 by Southern Ocean Lodge on the remote wilderness of Kangaroo Island's south-west coast. The collection was further expanded in 2013 with the addition of acclaimed luxury camp Longitude 131° overlooking Uluru (Ayers Rock) and Kata Tjuta (The Olgas) in Australia's Red Centre, also situated adjacent to a World Heritage-listed National Park.

In 2019, Baillie Lodges entered into a joint venture with KSL Capital Partners, heralding a new chapter in Baillie Lodges' quest to deliver Australia's finest collection of luxury lodges. Silky Oaks Lodge in Tropical North Queensland was the first property to join Baillie Lodges following the new partnership agreement. Set adjacent to the World Heritage-listed wilderness of the Daintree Rainforest National Park and along the banks of the gently flowing Mossman River, Silky Oaks Lodge offers guests a stylish rainforest escape.

Baillie Lodges' commitment to the environment is best seen in each lodge's day-to-day interaction with its local natural and cultural surroundings. A dynamic environmental management plan featuring state-of-the-art, continually evolving technologies steers lodge operations and ultimately enhances each guest's experience of the destination.

Biodiversity Protection & Conservation

A stay at a **Baillie Lodges** property by default includes interaction with the surrounding natural environment. Some properties include an itinerary of signature experiences for guests led by their own inhouse guides while others work closely with local operators for destination tours and experiences – and often a combination of them both! These experiences build awareness of the natural environment as well as offering an understanding of local culture and the community.

Development plans for **Southern Ocean Lodge** were approved under the Commonwealth Environment Protection & Biodiversity Conservation Act, the South Australian Development Act, the National Parks & Wildlife Act, the Native Vegetation Act and the Natural Resources Management Act.

One hectare of land was cleared in the construction of Southern Ocean Lodge, or approximately one per cent of the total 102 hectares of private land purchased by Baillie Lodges. Clearing of native vegetation clearing on the site was minimised by using existing fire-trails and tracks as access. The remaining 99 per cent is protected as a nature sanctuary to guarantee its pristine state for future generations of people as well as wildlife! Encumbrances were secured on adjoining land limiting future development and protecting the wildlife sanctuary.

In 2005 and 2006, prior to the start of construction, management undertook extensive flora and fauna surveys which identified that the rare Osprey and vulnerable Hooded Plover bird species were found near the site. Environmental Management plans were subsequently put in place, including:

- Buffer zones and strict access controls;
- Guest awareness programs;
- Interpretive signage; and
- Ongoing monitoring of sites.

Boardwalks and signed walking tracks have been established around Southern Ocean Lodge to minimise potential 'edge effect' of guest movements on neighbouring Kelly Hill Caves National Park and Flinders Chase National Park.

Capella Lodge collaborates closely with the Lord Howe Island Board to implement environmental management policies in keeping with the destination's World Heritage listing. The Board carefully controls visitation and no more than 400 guests are allowed at any one time on the island, protecting the small island from over-crowding.

Revegetation of two acres of land surrounding Capella Lodge is ongoing, where endemic species are planted to prevent erosion. Species include Kentia Palms, Hopwood, Sallywood, Melaluca, Juniper, Bulli Bush, Tee Tree, Berry Wood and Goat Wood.

Longitude 131° was also approved under the Commonwealth Environment Protection & Biodiversity Conservation Act and involved extensive consultations with the Central Land Council and Aboriginal Areas Protection Authority, including studying cultural maps to confirm there were no sacred sites in the immediate area of the property.

Situated adjacent to the World Heritage-listed Uluru-Kata Tjuta National Park, Longitude 131° was designed and constructed using techniques that minimise its impact on the site and surrounds. If required, the infrastructure could be completely disassembled and removed, and the site restored to its pre-development state with minimal remediation.

Particular attention is paid to the wellbeing of small native animals in the area including the local population of Mulgara, a carnivorous marsupial endemic to Central Australia. Twelve square kilometres of land has been set aside as a conservation reserve for the small but fierce predator, known by the indigenous name *Ampurta*.

Another species, the Great Desert Skink, was found to have a warren near the lodge site during construction, resulting in the relocation of an access road and creation of an exclusion zone.

A broad-ranging Environmental Management Plan is in place at Longitude 131° and governs all strategies relating to the conservation of the desert eco-system.

Silky Oaks Lodge is located on the banks of the Mossman River, constructed on 40 hectares of land adjoining the Daintree Rainforest National Park, which was listed as a World Heritage site in 1988. At just 27 kilometres from Port Douglas and 78 kilometres from Cape Tribulation, Silky Oaks is also at the gateway to the Great Barrier Reef World Heritage Area.

Native vegetation in the area is predominantly undisturbed rainforest, which supports a range of native birds, lizards and snakes.

Silky Oaks Lodge works to an Environmental Management Plan (EMP), an overarching document that outlines how Silky Oaks Lodge operates to efficiently manage resources, details the responsibilities of all employees, and establishes objectives and targets designed to improve environmental management.

It ensures compliance and prescribes the resort's activities and systems relating to the environment, from water and waste management to energy conservation, recycling and the monitoring of machinery output to ensure peak performance.

Energy Management

A commitment to best-manage energy is ongoing at each of the Baillie Lodges properties.

The aspect and architectural design of the properties was planned to maximise benefits of each destination's natural weather patterns, encouraging flow-through ventilation and the use of glazing to capture sunlight and store natural heat.

Capella Lodge takes advantage of its temperate sub-tropical climate and does not require air conditioning, with shuttered doors, ceiling fans, thick Kentia palms and generous verandas designed to channel cool breezes to guest suites.

Southern Ocean Lodge features an intricate Building Management System (BMS) whereby power usage in certain areas can be shut down during off-peak periods. Additionally, the guest suites and lounge areas face south, welcoming cool ocean breezes.

Longitude 131° guest tents are made of three layers of fabric to enhance thermal and acoustic insulation. Floors are insulated and covered in natural stone to enhance cooling in summer and retain warmth in winter, while the tents are positioned to minimise heat load on window glazing.

Silky Oaks Lodge guest treehouses are set high above the Mossman River and among the rainforest canopy, with deep verandas and wide doors allowing cool breezes to flow to guest areas.

Renewable Energy and Energy Savings

In cooperation with Federal and South Australian governments, a set of 225 solar panels has been installed by South Australian company Solaris Technology both on the **Southern Ocean Lodge** roof and on sun-tracking frames adjacent to the breezeway which links the lodge to guest suites. This constantly moving renewable energy source can generate 130kw.h per day on average, saving around 42000kg of carbon dioxide per year in reduced diesel fuel consumption. The solar panels are very visible to guests, and a daily report shows just how much energy has been generated and saved.

The lodge also employs the latest heat pump technology for an energy-efficient hot water system, equivalent to a solar powered hot water supply in its sustainable value.

Ethanol-fuelled EcoSmart fires offer an element of heat to several guest suites. Low wattage, energy-saving light globes are used throughout the lodge while LPG is used for laundry and kitchen facilities.

Capella Lodge also employs a solar power system that minimises the property's draw on the island energy supply and feeds back into the island grid during periods of low energy use. Its 40 solar panels are discretely positioned across the roof of Capella Lodge and have been installed as part of Lord Howe Island's commitment to generate 80 per cent of its energy from renewable sources. The Sunny Tripower system generates 14100kwh each year.

Capella Lodge also uses green energy ethanol to fuel contemporary EcoSmart fires which heat both public areas and in-suite fireplaces. Capella uses electric buggies to transfer guests around the island, and maintains a fleet of mountain bikes which are the main source of transport on Lord Howe.

As part of the 2018 refurbishment, all lights at Capella – both front and back of house - were fitted with energy saving LED globes.

Longitude 131° is fitted with solar panels on the roof of the Dune House and guest tents to provide hot water. The swimming pool is warmed using energy efficient heat-pump technology.

Longitude 131° also taps into the Yulara Solar Project, commissioned by Voyages Indigenous Tourism Australia in 2016. The system integrates 1.8 MW of solar photovoltaics (PV) into the existing power system at the Yulara

Resort and neighbouring businesses. This system is a showcase for sustainable eco-tourism, setting a benchmark for other remote tourism operations.

With the desert sun an abundant solar resource, the integration of solar PV into the power system was identified as the best way to manage expenditure on energy whilst decreasing carbon emissions.

Silky Oaks Lodge has a dedicated energy management plan, designed to improve the efficient use and conservation of energy, with responsibility shared among resort staff and extended to guests. Silky Oaks operates on mains power supplied from the Mossman power grid, with a generator onsite for use in times of power loss. Wherever possible, energy efficient equipment is utilised to reduce energy consumption; this includes low wattage light globes and 'daylight switches'.

Waste Management

Extensive recycling is undertaken at each of the Baillie Lodges properties, with staff separating compostable materials, cardboard and paper, glass, plastic, aluminium and rubbish. Biodegradable chemicals are used for cleaning.

Waste management at remote **Southern Ocean Lodge** is a key issue as management aims to treat as much waste as possible onsite to avoid sending large amounts of recyclable material to the tip as landfill.

The award winning Australian-owned and invented 'Biolytix Filter System' was installed at development stage to treat wastewater at Southern Ocean Lodge. Using a chemical-free process that is also odour absorbing, the system converts organic waste, wastewater and sewage to clean irrigation water. This grey water is used on plantings in the staff village area via a subsurface system that also ensures wildlife are not attracted by food wastes.

At **Capella Lodge**, an environmentally sensitive onsite sewage treatment plant manages wastewater in line with Lord Howe Island's strict regulations. Waste water is captured and treated to a standard that prevents negative impact on the island's ground water and sensitive marine environment. A new generation Kubotato system provided by TrueWater Australia was installed in 2015, providing an even higher standard of treatment.

The Lord Howe Island Board (LHIB) is responsible for the management and disposal of all waste generated on the island. Waste is managed through the Board's Waste Management Facility (WMF) located near the airport. Lord Howe Island has no land fill capability so all waste which cannot be composted or used on the island is shipped to the mainland by barge. The island does not have a garbage collection service so residents and businesses are responsible for the sorting and delivery of waste at the WMF. Waste management is a significant cost to the small Lord Howe Island community so everyone is encouraged to reuse, reduce and recycle.

At Capella, recycling is a high priority. Organic waste and recyclables are sent the short distance to the WMF's leading edge Vertical Compost Unit for recycling. Compost is then used for island regeneration and environmental projects.

All waste water at **Silky Oaks Lodge** is sent to the property's own waste water management plant, a gated facility located 200 metres from the resort. The plant comprises a series of above ground aeration and settling tanks, from which waste water is processed through a sand filter system and stored for use. The result is second grade effluent suitable for irrigation, which is distributed around the property's forested areas fed via a sprinkler system.

A dedicated Waste Management plan has been developed and is in action at Silky Oaks Lodge, designed to minimise the property's environmental impact by reducing products brought into the resort and improving the reuse and recycling of waste materials.

Under the plan, responsibility is shared among staff and guests to minimise disposable products coming onto the property and maximising recycling through a vigilant sorting process. Recycled materials include glass, aluminium and plastics, paper and cardboard, cooking oil, printer cartridges and vehicle batteries.

Water Management

All Baillie Lodges properties have accredited bathroom and shower fittings to ensure efficient systems and minimise water usage.

Guests are encouraged to opt for towel and linen changes every third day of their stay, potentially saving 250,000 litres a year per lodge and minimising detergent use.

Water is harvested from all roof surfaces at **Southern Ocean Lodge** and stored in tanks with a total capacity in excess of 1.5 million litres. A key aim is to have the property rainwater self-sufficient nine out of ten years.

Capella Lodge captures around 75% of all its water needs in rainwater tanks, with a total storage of 290,000 litres supplied by regular rainfall and harvested from the lodge roof.

At **Longitude 131°** each tent features a generous shower instead of a bath, in order to preserve precious water in the desert environment.

Multi-use Vessels

Each of the Baillie Lodges properties uses refillable water bottles for guest use on outdoor adventures. There are no single-use (plastic) drinking straws on offer for guests in the bar or restaurant.

Guest amenities (shampoo, conditioner, liquid soap and hand cream) are all presented in guest suites in stylish, refillable vessels, which are refilled as needed as part of the daily housekeeping service.