MERIKI ISLAND SANCTUARY



Re-generation for people and the environment.

APPLICANT: RAINBOW REACH PTY LTD A.C.N. 105210071

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1.Project Description

1) Design Concept Principles

From the point of first conception, the vision of Meriki Sanctuary was one of ecological and financial sustainability. This theme has remained at the core of all designs and management plans of the development since. The aim is to create a natural and built environment in which families, students, scientists and executives alike can play, learn, study and relax. The presence of the development will support the re-habilitation of the natural environment both locally and globally.

2) Site Description and Locality

The Meriki Development site is approximately 70 hectares of coastal river Delta in the Lower Macleay valley on the Mid North Coast of NSW. It is made up of a combination of Grasslands, Casuarinas forests, wetlands and Mangroves. Currently the property consists of 5 lots, under 2 titles. *Lots 78 and 80 DP 752409*, known as McCabe's island is under one title. *Lots 73, 77 and 79 DP 752409*, under one title. For the purposes of this document McCabe's island shall be referred to as "**Island**", lots 73, 77 and 79 shall be referred to as "**mainland**". **3) The Island Project**

"The Island" is made up of, mangroves, salt marshes, Grasslands, Casuarinas forests and littoral rainforest. It contains lots 78 and 80, and is the site for "The Retreat", which contains the Bungalows, Day Spa, Conference Centre and Island Managers residence. The purpose of the retreat is to provide a location of environmental envelopment and personal re-generation for Executives, families and individuals alike.

4) The Mainland Project

"The Mainland" is made up of extensive Grasslands, salt marshes, mangrove forests, Casuarinas and one small pocket of littoral rainforest. It contains lots 73, 77 and 79, and is the site for, Meriki Lodge, Sea Lodge, Study Lodge, existing residence and Managers residence. The purpose of the mainland is to provide accommodation and facilities for divers, Universities and schools, and to provide logistic support and activities to "The Retreat".

5) Title Structure

Each building will have its' own Community Title encompassing the building and an allotted area of land. The two existing lots 78 and 73, on which no new buildings are being built, will also have their own Community Titles.

2. Buildings

<u>(a) Island Buildings</u>

The island buildings include 10 Bungalows, the conference centre and the Day Spa. All these buildings use functional design and aspect to minimize energy requirements. Constructed using environmentally sustainable materials, and ecologically sound construction methods.

1) The Bungalows (see image # 3), BC10706)

The Bungalows will be set in the casuarinas canopy, 3 metres off the ground and connected by suspended walkways. The footings and buttresses will be concrete, designed to deflect debris in the event of a major flood, and designed to withstand the appropriate velocity.

The Bungalows will be a two-bedroom open plan pavilion style, taking maximum advantage of design function to minimize energy requirements. The Bungalows will be connected to the Conference centre and Day Spa by a suspended walkway.

2) Conference Centre (see image # 2), CC10706)

The Conference Centre will again be on a cast concrete footing and will have a total Floor area of 500m2. This building will contain, indoor and outdoor dining areas, conferencing hall, projection facility, juice bar and stage. A Jetty will connect directly to the function centre allowing easy access to waterways.

3) The Day Spa (see image #3, DSFP10706)

The Day Spa externally is the same design as the bungalows, however internally it will be fitted out with a Spa, Sauna, Therapy Lounge and Massage Studio. This will be sold as a fully operational business.

4) Managers Residence (Island) (see image # 4) MRC10706)

This manager's residence will be a 3-bedroom home following the Meriki design themes. It will be situated nearby the entrance to the retreat on a 4500m2 waterfront lot. This building is the primary residence of the Retreat Manager and family.

(b) Mainland Buildings

The mainland buildings consist of one existing residence, three Lodges, (Study Lodge, Meriki Lodge and Sea Lodge) and the Mainland Managers Residence. These buildings also follow the Meriki design theme, using sustainable building products and sound environmental construction practices.

1) Existing Residence

Current residential house on lot 73 is to be renovated in a classic Macleay valley farmhouse style, including 2 extra rooms on the northern side of the building plus the addition of a wrap around bull nose verandah, new fencing, replacement sheds, landscaping and removal of the old cattle yard.

2) The Study Lodge (see image #5), SLFP10706)

The Study Lodge is a combination of Dorm style and twin share accommodation. Eight rooms in total accommodating up to 22, Lecture room, a Generic Laboratory, communal dining and cooking facilities. It will also have it's own Jetty allowing safe access to the waterway if required. It is intended as a study and research base for Scientists, Universities and Schools.

3) The Meriki Lodge (see image #5), MLFP10706)

This Lodge is a carbon copy of the study lodge, with the exception of the laboratory, a communal kitchen will replace this. It will function as the Educational Hub of the Sanctuary, focusing on Recreational, Technical, scientific and Professional Dive Training and environmental awareness lectures.

4) The Sea Lodge (see image #5), SELFP10706)

The Sea Lodge keeps the same design as the other two lodges. This will function as the Marine logistics centre of the Sanctuary, running Dive Charters and providing Logistical support to both the Study and Meriki Lodges. It will consist of 10 rooms with varied accommodation levels, a common area combining dining and cooking facilities, a library and video lounge and a Lecture room. On The Ground floor will be an indoor sea water training pool and equipment storage. It will have a 5-berth deep-water jetty, for river/ocean access and vessel berthing.

5) Managers Residence (Mainland) (see image #4), MRFP10706)

This will be a 5-bedroom home, again following the Meriki design concept. It will be the primary residence of the mainland operations manager and family.

3. Facilities

1) Eco Outposts

There will be 4 of these structures at different environmentally strategic positions around the sanctuary, 2 on the mainland, and 2 on the island. These will be designed as camouflaged "hides" to allow non-intrusive observation and study of Fauna. They will be 25m² cabins with basic facilities including seating and drinking water.

2) Raised Walkways (Mainland)

The Raised walkways will be constructed from pre-cast concrete footings or screw piles with plantation timber decking approximately 0.4m above ground level. They are used to provide access between the different mainland facilities and lodges, and to prevent human traffic on the grasslands.

3) Suspended Walkways (Island)

The Island walkways area semi-suspended system, approximately 1.8m above ground level. They link all the bungalows to the Day Spa and Conference centre and provide access, including disabled access, to the bungalows. It will be constructed to be able to support a Golf cart style vehicle used to transfer Guests from the Car park and to restrict human traffic at ground level.

4) Tennis Court (island)

A Tennis court with all weather surfaces is proposed on the island.

5) Zen Point (Island)

This will be located at the tip of the island and will form part of the bank protection and enhancement program. It will be a low profile construction and not readily visible. In keeping with the values of Meriki it will be made from natural materials including local sawn granite recovered as a bi product of an un-related construction.

6) Sea Water Pool (Island & Mainland)

The sea water pools will be periodically supplied with clean water at high tide using a natural flow technique with pump assistance. The system will then close and operate on an internal filtration system without chemical aid, and when necessary employ a solar heating system. This system was chosen as it eliminates the need for excess chemicals to be used, and would prevent the introduction of those chemicals into the river system as a result of a flood. One pool will be located in the Sea Lodge on the mainland, the other will be located on the island, near the Conference Centre.

7) Jetties and Pontoons

Jetties and pontoons have been designated for specific areas around the sanctuary, one large jetty and pontoon from the conference centre, one large Jetty and Pontoon from the Sea Lodge, one small jetty from the Study Lodge, one small jetty from the Mainland Managers Residence. They will be constructed using a combination of timber decking, concrete pontoons, turpentine pylons and galvanized steel ramps. Floating pontoons were selected as they minimize the disturbance to the benthic environment and provide a solid, safe platform for humans.

4.Utilities

1)Power

Meriki Sanctuary will have both solar power and be connected to the grid. An existing 33kv supply runs through the middle of the property.

2) Water

Meriki Sanctuary will be connected to mains water and water tanks. There is presently town water supply to the existing residence on lot 73.

3) Sewage

Meriki Sanctuary will operate on a recirculation sand filter system in two separate mounds, one located on the mainland and one on the island. This system has been used very successfully in the Port Stephens area on similar grounds for several years. This method has been proven to be more than acceptable for the locations proposed, giving the Hydraulic Engineers confidence of approval of this method.

4) Drainage and Storm water Management

Excess rainwater from the buildings will be stored in water tanks. Raised conglomerate roads minimize particulate run-off and furrowing. Natural drainage routes from the existing land will be kept intact and unobstructed. Construction drainage and trenching will be done using an instant backfilling method; all areas of construction will be silt controlled using silt control fencing.

5.Grounds

1. Roadwork

Roads will be improved from the building at Barnett Oysters the 1.5 km to the retreat car park. Proposed works include, widening the existing causeway and allowing drainage through from Balls creek, using a short concrete bridge to reestablish natural flow.

The roads through to each part of the Sanctuary are to be raised conglomerate roads, with sediment control planting. They will follow the natural high ground contours and will have flow under properties when passing over natural erosions or low ground. All roads are diverted away from particularly sensitive areas.

2. Landscaping

Landscaping will be restricted to the areas directly surrounding the main structures, and will consist of indigenous species only. The grassland areas will be preservation zones, protected as part of the on-going environmental management plan. There are 2 distinct pockets of Littoral rainforest, which will be enhanced with the planting of endemic species.

The growth of Casuarinas and other endemic/indigenous species will be promoted.

3. Bank Stabilization and Rehabilitation

There are a number of programs in place to ensure the Banks of the Sanctuary are stable, these include;

- Removal of Cattle from property in 2004
- Assisted propagation of 5000 Mangrove Trees 2004
- > Planting of endemic species on high banks.
- Cleaned rock & Turpentine retaining walls in high flow/traffic aquatic areas
- Encouraged growth of Casuarinas.
- Protection of existing grasslands and salt marshes.

6.Key Issues

The Meriki development is designed around the possible key issues surrounding this site, rather than being a pre-conceived idea placed into a location and dealing with issues as they arise. Many Individuals, Departments and Organizations were consulted, and their concerns and ideas were incorporated into the design process for the project. Raised in this section of the report are issues that have been addressed but may potentially have concern or contention still attached to them.

1. Environmental Risks;

- Flooding
- ➤ Fire

2. Environmental Impact

- > The impact of increased traffic on Rainbow Reach road.
- > The decision to seal Rainbow Reach Road, or not
- > The impact of construction activities on Flora and Fauna
- How the development will co-exist with Flora and Fauna
- > How the Development will affect the Aesthetics of the location.

3. Community Concerns

Due to the low impact of the development on the physical and visual environment, Meriki has addressed all known contentious issues raised by members of the community. The issues listed above are those that are subject to varied and changing opinion, and so could still be viewed as potentially contentious issues.

4. Consultations

Following is a list of Departments and Organizations consulted prior to and during the design phase of the Meriki Development;

- NSW Fisheries
- NSW Waterways
- Catchment Management Authority
- Formerly Local DIPNR rep.
- Bird Watchers Association
- Rainbow Reach Oyster Growers
- Friends of South West Rocks
- Kempsey Shire Council
- Macleay Valley Tourism
- Rural Fire Association
- National Parks Association
- NSW State Forestry
- > J Whitehead and Associates Hydraulic Engineers
- Darkheart Eco Consultants
- > DEX Engineering
- South West Rocks Chamber of Commerce
- > Dunghutti Elders

7. Planning Provisions

1. Zoning

The site is zoned 1(a1) Rural and has an area of 70.04 Hectares. Under the Kempsey Local Environment plan (KLEP) this zoning is set aside for " Predominantly agricultural uses, to preserve the visual amenity of the land and to provide for compatible tourist and industrial uses". It is our engineer's opinion, DEX Consulting, that the Development fits within the guidelines of the relevant planning provisions.

2. Names of Relevant LEP's, DCP's, SEPP's and REP's

- a) Kempsey Local Environment Plan (Gazetted 29 May 1987)
- b) Draft Local Environment Plan no. 67
- c) Relevant Development Control Plans (D.C.P s)
 - > 18 Mar 1987 DCP NO. 24 Access and Mobility
 - > 16 Jun 1998 DCP NO. 25 Advertising Signs in Kempsey Shire
 - 21 Jul 1998 DCP NO. 28 Leasing of Public Areas for Restaurants & Cafes.
 - > 21 Jul 1998 DCP NO. 29 Bed and Breakfast Accommodation
 - > 7 Apr 2000 DCP NO. 30 Management of Acid Sulphate Soils
 - > 13 Jul 1999 DCP NO. 31 Energy Smart Homes
 - 21 May 2002 DCP NO. 36 Engineering Guidelines for Subdivision and Development.

d) Relevant State Environmental Planning Policies (S.E.P.Ps)

> 12 Dec 1985 Planning Policy NO. 14 – Coastal Wetlands

e) Relevant Regional Environmental Plan

> North Coast Regional Environmental Plan

8. External Opinions of the Project

> Kempsey Shire Council – Economic Development Committee

Support the development subject to all relevant planning requirements being met. "A tourist attraction of this nature would be an asset to our shire"

> Macleay Valley Tourism Association

Congratulates and supports the proposal for the ecologically sustainable development, Meriki. "The proposed conference facility would be a valuable asset to the community".

> NSW Fisheries

Fully supportive of any project that provides bank rehabilitation, protecting and propagating mangroves, and estuary areas.

> Catchment Management Authority

Fully supportive of any project that provides bank rehabilitation, protecting and propagating mangroves, and estuary areas.

> Waterways

Supports the project given the developments pro-active approach to responsible use of adjacent waterways.

> National Parks and Wildlife

Supportive of the development due to the project's self-funding and management of ecological re-generation and conservation.

> Local Bird Watchers Association

Support the project for its conservation of native habitat, minimal human disturbance and educational prospects.

> South West Rocks Chamber of Commerce

Fully supports environmental and economically sustainable development.

Friends of South West Rocks

Supports low density and ecologically sustainable development.

9. Preliminary Studies and Investigations Undertaken

1) Environmental Impact

Flora and Fauna Survey – including an assessment of possible impacts on threatened species, SEPP14 wetlands and the new Endangered Ecological Communities.

2) Environmental Risks to Development

- Bushfire Risk Assessment
- > Flooding information, including a survey for flood levels

3) Heritage

> Aboriginal Heritage Report, DEC report using AHIMS database

4) Utilities & Buildings

- > Effluent and waste disposal treatment compliance
- Council contribution requirements for road upgrades
- Survey for boundaries,
- Extension of power
- > BASIX and/or NatHERS assessments on buildings

5) Community

- The project is in line with the Macleay Valley Coast Tourism Strategic Plan
- > The project has met with no known community concern.

4) Market

- **a.** An extensive study carried out using information supplied by the Australian Bureau of Statistics.
- **b.** The development has been designed with, both corporate and tourism, market trend factors given high consideration.