

To be developed for distribution to contractors
& staff to be using Airlie Is.
(Coupled with indoctrination sessions)

CONSTRUCTION PERSONNEL

ENVIRONMENTAL BRIEFING

for

AIRLIE ISLAND

by

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Report Prepared for
WESMINCO OIL PTY. LTD.

Proforma text of pamphlet to be prepared for issue to all travellers to the Island

1. DRAFT FOR AIRLIE ISLAND ENVIRONMENTAL PAMPHLET

Since the time Airlie Island was formed, it has evolved its own unique and balanced ecosystem, which has considerable scientific and conservational significance. It is our aim to ensure that disturbance to the environment on Airlie Island is kept to a minimum. This introductory brochure will serve to point out some of the important environmental features of the island, and why conservation is always to be given priority.

(Insert photo No. 1 Airlie Island)

Airlie Island is a small, oblong shaped island which lies 35km north of Onslow on the mainland and 50km south-west of Barrow Island. It has a total area of 24 ha, and is situated in the region classified as sub-tropical, with summer rainfall. Summers are hot, winters moderate. The island hosts a variety of vegetation, reptile and bird life which until now has had relative protection afforded by isolation and distance.

2. WEDGE-TAILED SHEARWATERS (Puffinus Pacificus)

A vast colony of Wedge-tailed Shearwater (also known as Mutton Birds) on Airlie Island makes it an important and valuable environmental habitat.

The island consists of sandy soils, a red sand inland and whiter sandy dunes along the coast. The red sand is particularly favoured by the Wedge-tailed Shearwater for nesting burrows. There are an estimated, 2720 burrows on Airlie at this stage. The burrows can be 2 meters or more long and are particularly fragile. Evidence suggests that the bird takes up its burrow of previous years, arriving on the island during October each year. Egg laying peaks in November, incubation is of a period of approximately 50 days, and the nestling period is of about 70 days. Therefore, it is obvious that destruction of the burrows must be kept to a minimum. During construction, it is inevitable that a number of burrows will be destroyed, but damage and disturbance done outside the construction area will be negligible, as strict lease boundaries are imposed. **Interference by trespassing outside of the lease area is strictly forbidden.**

(Insert photo 3 Burrow Wedge tailed Shearwater burrow)

The possibility of the introduction of predators onto the island which might threaten Wedge-tailed Shearwater populations during construction will be eliminated by the enforcement of strict fumigation and quarantine procedures.

3. OTHER SEA AND LAND BIRDS

Not only do Wedge-tailed Shearwaters use the island as a nesting colony. Crested Terns, Silver Gulls, Brown Quails and other species also nest on the island. The nests are not obvious, and are often very exposed. Therefore they are very vulnerable to the heavy and unwary footsteps of man.

(Insert photo No. 4 of exposed Brown Qual Egg)

Long term residents of the island are a pair of Sea-Eagles *Haliaeetus leucogaster*. Evidence of this is obvious from their 3m high nest located on the island. In order to encourage continuous residence of these birds, the nest must not be disturbed in any way. The pair of Sea-Eagles enjoy perching on the man-made beacon existing on the island, which serves as a high vantage point for them.

(Insert photo No. 5a of Sea-Eagle & 5b of Sea-Eagle nest)

Other significant birds of prey recorded on the island include the Black Shouldered Kite, the Spotted Harrier and the Australian Kestrel.

Lease area will be fenced off.

4. FLORA AND VEGETATION

At first glance the vegetation on Airlie Island appears harsh and uninteresting. In fact, it is quite diverse and extremely fragile. While the vegetation on the island is able to withstand great extremes of temperatures, high salinity levels and unreliable rainfall, it is very vulnerable to any disturbance by man. This is already evident on Airlie Island to a certain extent by the obvious existence of the grass, Cenchrus ciliaris, commonly known as "Buffel Grass". This species was introduced to north-west Australia as fodder and has quickly replaced much of the native vegetation, especially in disturbed areas. This grass may have been introduced to the island by pearlers back at the turn of the century, or by the workers responsible for the erection of the light house and associated equipment. It is essential that no other introduced species be brought onto the island, and again, strict quarantine procedures will be adhered to.

(Insert photo No. 6)

Twenty plant species have been recorded on Airlie to date. The dominant and most obvious species is the low, greenish-grey bush, Acacia coriacea, interspersed with the less dominant Acacia aff. ligulata. This second acacia species is of particular interest as it appears to be a hybrid species which needs further examination. The new gene pool that appears to be developing could possibly develop into a new species. This is one of the reasons why the vegetation must be left as undisturbed as possible.

(Insert photo No. 7)

Effects on the vegetation will be closely monitored both within and outside the lease area. The vital importance of the vegetation to the ecosystem as a whole cannot be stressed enough.

It is strictly prohibited to bring any plant material onto Airlie Island, or to remove any part of the vegetation existing there.

(Insert photo's No. 8a & 8b)

5. TURTLES

Turtles have been noted on Airlie, however, generally the shoreline of the island does not offer favourable conditions for turtle nesting. Fuller investigation into the usage of the island by different species will be further investigated.

Turtles are protected by law and any wilful damage done to them is punishable by law.

6. FISH, MOLLUSCS, CRUSTACEANS

Fishing is permitted according to the Acts, Regulations and Notices applying to Amateur Fishermen in Western Australia. There must be strict observance of the designated minimum lengths and maximum numbers (3 of each species per day per person). A variety of molluscs and crustaceans are to be found on the shoreline of the island.

The removal of any molluscs, crustaceans, corals or any other reef inhabitants is prohibited, as is the taking of any sea water species for aquarium use.

The above brief summary has hopefully served to introduce you to the present environmental conditions existing on Airlie Island, and heightened your awareness as to the reasons why we insist on high standards of quarantine methods, strict observance of the lease area and a thorough environmental indoctrination of all construction personnel.