



Site Plan **Normanby Island Reefs** **and** **Russell and Round Island Reefs –** **Frankland Islands Sector** (September 2006)

1. Background

Site planning is an integral part of the implementation process for the *Cairns Area Plan of Management 1998*. Site planning is required at a number of Locations in the Cairns Area to provide for a balance of recreational and commercial access consistent with the protection of conservation, scientific and cultural values.

Sites identified as requiring site plans include: Lizard Island Localities 2 and 3; Opal Reef; Tongue Reef; Agincourt Reefs; Hastings Locality 1; Briggs Reef; Norman Reef; Michaelmas Cay Locality; Upolu Cay Reef; Green Island Reef Locality 1; Flynn Reef; Milln Reef; Moore Reef Locality 2; Normanby Island Reef; Russell and Round Island Reefs.

Site plans were approved for all the above locations between 1999-2001, except for Normanby Island Reefs (17-012a) and Russell and Round Islands Reefs (17-013), each within the Frankland Islands Sector.

This site plan documents the management arrangements at these remaining sites and is publicly available on the Great Barrier Reef Marine Park Authority (GBRMPA) website.

2. Site planning objectives

The following summarises the objectives of site planning in the Cairns Area:

- Provide an appropriate balance of private and public access opportunities
- Provide for Reef Anchorages where reasonable access will not be inhibited by moorings
- Minimise damage to fish spawning aggregation sites and disturbance of fish spawning aggregations when determining the location of Reef Anchorages, moorings and pontoons
- Minimise the impact on significant dugong habitat when determining the location of Reef Anchorages, moorings and pontoons



- Minimise disturbance to significant cultural and heritage values when determining the location of Reef Anchorages, moorings and pontoons
- Ensure that Reef Anchorages, mooring or pontoons are not located within an existing research or monitoring site if the project design would be adversely effected by anchoring
- Minimise damage to coral from anchoring when determining the location of Reef Anchorages, moorings and pontoons
- Determine a maximum number of moorings and pontoons for Locations with no limit (refer to Schedules 6 and 7 of the Cairns Area Plan of Management).

Note: Approval for new private moorings and pontoons will remain subject to detailed impact assessment.

3. Site description and map

The Frankland Island Group comprises five continental islands surrounded by fringing reefs, located 10km offshore from the mouth of the Russell-Mulgrave rivers and 45km south of Cairns.

The Frankland Islands are part of the Great Barrier Reef World Heritage Area. The surrounding waters are part of either the Great Barrier Reef Marine Park (Commonwealth) or the Great Barrier Reef Coast Marine Park (State) with complementary zoning. For administrative purposes, the Marine Park is divided into four management areas and the Frankland Islands are located within the Cairns/Cooktown Management Area. Russell Island is a Commonwealth Island and as such is part of the Commonwealth Great Barrier Reef Marine Park and managed by the Great Barrier Reef Marine Park Authority¹.

The other four islands (High², Normanby, Mabel and Round) are National Parks. The Frankland Group National Park was established in 1936 under the *Nature Conservation Act 1992* and is administered by the Queensland Parks and Wildlife Service (QPWS). Maintenance of the campground on Russell Island is also undertaken by the QPWS through the Day-to Day Management Programme.

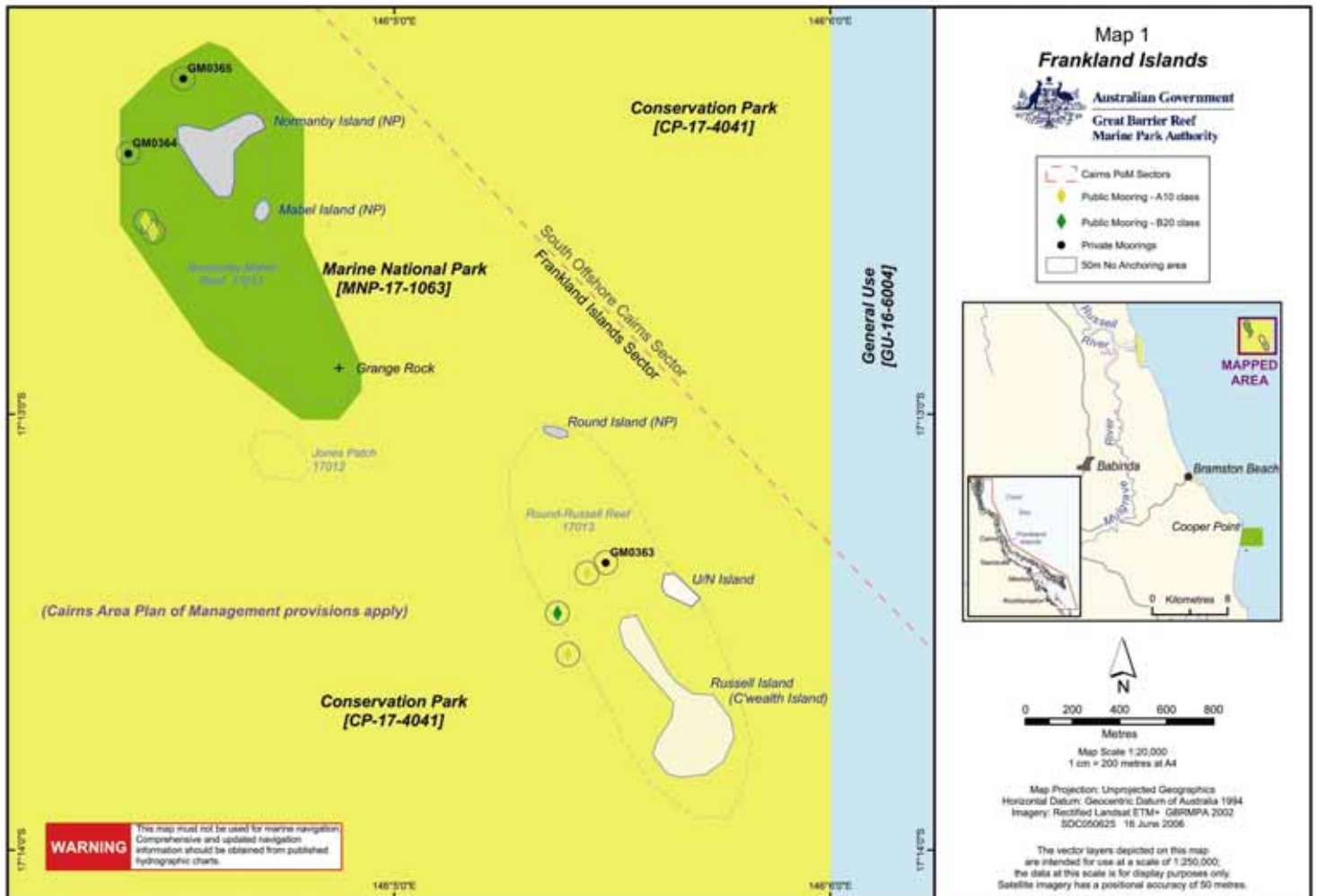
The Frankland Islands Sector is one of five Sectors within the Cairns Planning Area to which the *Cairns Area Plan of Management 1998* applies. This site plan provides strategies for managing the 'wet' bits only, in that it extends as far as the low water mark on all the islands.

Normanby Island Reef is located at latitude 17° 12.5' South and longitude 146° 5.0' East. The area of the reef is 40 hectares.

Russell and Round Island Reefs are situated at latitude 17° 13.5' South and longitude 146° 5.5' East. The reefs cover an area of 120 hectares.

¹ The Lighthouse area is leased to the Australian Maritime Safety Authority

² High Island is not included in this Site Plan



4. Values

The Frankland Island Group is one of the few island groups in the Cairns/Cooktown Management Area easily accessible to small private vessels in most weather conditions and still relatively free from commercial tourism development. Because of these factors, and their outstanding natural beauty, the islands and surrounding reefs have very high social and recreational value for surrounding local communities such as Babinda, Innisfail and Cairns.

4.1 Coral

The fringing reefs around Normanby, Russell and Round Islands support a diverse assemblage of corals. Branching and tabulate *Acropora* are common, together with a variety of massive corals such as *Porites* and numerous *Faviids* and *Mussids*.

The reefs were surveyed by A.M. and A.L. Ayling during 1994-1995, 1998-2000 and 2001, and a benthic study was conducted by the QPWS in 1999.

The following extracts provide a brief summary of natural and anthropogenic impacts on these fringing coral communities:

- The Frankland Island reefs supported rich coral communities in 1994 with averages of almost 80 per cent live coral cover. Sixty per cent of the fringing reefs on both faces were bleached by the

1998 event. Due to differential mortality of the various coral groups in 2001, poritids are now the dominant coral group on the western Frankland Island reefs, accounting for almost 86 per cent of hard coral cover (Ayling and Ayling, 2001).

- The eastern Frankland Island reefs have also been impacted by grazing crown-of-thorns starfish (*Acanthaster planci*), reducing overall hard coral cover around the Frankland Islands to only 20 per cent by late 2000. Coral cover on these reefs had increased nominally by the end of 2001, however it is anticipated that recovery from such severe impact could take several years (Ayling and Ayling, 2001).
- The reef located on the leeward side of Russell and Round Islands showed a very high proportion (86 per cent) of dead hard coral cover. Live coral cover at this site was limited to only six per cent. In considering both the bleaching event that occurred in the previous 12 months and the fact that the dead coral has retained its form, it is likely that bleaching was the principal influence in killing the coral in this area (QPWS, 1999). More recent reports suggest coral in this area had substantially recovered by early 2006 (QPWS, 2006).
- The more exposed sites on the south and south-eastern sides of Russell and Round Islands showed higher levels of live coral, with storm damage through exposure being an influence on the south east site (QPWS, 1999).

The [Australian Institute of Marine Science website](#) provides additional information from results of their Long Term Monitoring Project.

4.2 Seagrass

The reef has not been surveyed for seagrass, however members of the Queensland Department of Primary Industries (DPI) Fisheries Seagrass Ecology Group believe it likely that seagrass is present in small patches, as conditions are favourable on the sheltered side of the reefs.

It is also highly probable that deepwater seagrass meadows are present in deeper waters adjacent to the islands, to both the immediate north and south (L.McKenzie, 2003, pers. comm.).

4.3 Marine turtles and birds

The Frankland Island Sector is an important habitat and nesting site for a number of bird species, including the little tern (*Sterna albifrons*), the beach stone-curlew (*Esacus neglectus*), the pied imperial pigeon (*Ducula bicolour*) and the crested tern (*Sterna bergii*). Russell Island supports the spectacled flying fox and breeding pairs of sea eagles and ospreys.

Green turtles (*Chelonia mydas*) are often spotted around the islands.

4.4 Fish spawning

The area was initially surveyed for Fish Spawning Aggregation Sites by QPWS in 2001 and no sites were located. However, future detailed assessment may be conducted and possible Fish Spawning Aggregation Sites will be considered in future site planning.

4.5 Recreation

The Frankland Islands are popular destinations for local boat owners and recreational fishermen. There are six campsites on Russell Island and it is the most popular island destination for recreational camping in the Cairns/Cooktown Management Area.

The fringing reefs around Normanby, Russell and Round Islands are diverse and provide excellent snorkelling opportunities. A number of public moorings are provided, with two public moorings near Normanby Island Reef and three near Russell Island Reef.

Recreational activities allowed in waters adjacent to the Normanby Island Reef Marine National Park (Green) Zone include boating, diving, snorkelling and photography. Activities such as fishing and collecting and spearfishing are not permitted in this zone. Russell and Round Island Reefs are within a Conservation Park (Yellow) Zone. Recreational activities allowed include boating, diving, snorkelling, photography, limited collecting, limited fishing, bait netting, limited crabbing and limited spearfishing.

As a Commonwealth Island, Russell Island is within the Commonwealth Island Zone. This zone allows for low-impact activities such as sightseeing and photography, and does not allow for activities that involve the taking of plants, animals or marine products. Camping is allowed with a permit from the QPWS Cairns Office.

4.6 Tourism

Only one tourism operator holds a permission to visit Normanby Island Reef on a daily basis. A number of permissions have been issued to 'roving' tour operators, but are rarely used, based on Environmental Management Charge data. There are two private moorings at Normanby Island Reef and one private mooring at Russell Island Reef. The daily operator provides camper drop offs (and pick up) to Russell Island.

4.7 Cultural values

Indigenous

The locality and the surrounding area is culturally significant to a number of Aboriginal Traditional Owner groups including the Gungandjii People and clan of the Yidinji People. The waters and fringing reefs around the islands are part of the cultural landscape and are still the focus for traditional access and use of available resources. Spiritual connections are often associated with the natural and cultural resources.

The North Queensland Land Council Aboriginal Corporation is the Native Title Representative Body for Traditional Owners whose estates are located south of the Daintree River and north of Mission Beach, including both inland and offshore areas.

European

In 1770 Captain Cook named the Frankland Islands in honour of two eighteenth-century sailors. A short-lived beche de mer station was established in 1856 and the islands were often used as a campsite during expeditions such as Dalrymple's north-east coast expedition in 1873.

In the early 1900s, the Frankland Islands became a popular fishing and boating destination for local people. They were declared national parks in 1936 (except Russell which is a Commonwealth Island) and the surrounding reefs were zoned as part of the Great Barrier Reef Marine Park in 1983.

4.8 Research and monitoring

In addition to the research and monitoring referred to in Section 4.1 (coral values), the daily operator to Normanby Island actively participates in the Great Barrier Reef Marine Park Marine Monitoring Programme by deploying passive samplers to obtain water quality information. The sampler is deployed at the northern end of Normanby Island on a dedicated buoy. The operator deploys and retrieves the sampler on a monthly basis.

Water column chemicals accumulate within the deployed samplers to concentrations that exceed the concentration in the surrounding water column by orders of magnitude. As a consequence, the samplers are very sensitive. Water samples collected by passive samplers are analysed for the determination of a range of water pesticide (chlorpyrifos, diuron, atrazine, hexazinone, endosulphan, simazine and ametryn) concentrations.

Where pesticides are detected in passive sampling devices, sediment grab samples are collected for further analysis of pesticide concentrations. This will assist to more accurately quantify the presence of pesticides at the selected locations. The passive sampler deployment site is one of 10 sites being monitored with the assistance of the tourism industry along the northern Queensland coast as part of the [*Reef Water Quality Protection Plan*](#).

The same operator is also part of the [*Eye on the Reef*](#) programme, which is a partnership between the GBRMPA, the reef research community and the tourism industry, and is based on environmental monitoring, education and stewardship.

5. Issues

5.1 Appropriate balance of use (mooring and anchoring)

There are two private permitted moorings on Normanby Island Reef and one private permitted mooring at Russell and Round Island Reefs. In addition, there are two public moorings near Normanby Island Reef and three near Russell Island Reef.

The *Frankland Group National Park Management Plan 1998* reduces conflict between commercial operations and recreational users (for example, campers) by separating the two user groups where possible. The Plan only allows for one large-scale tourism operation and it is restricted to Normanby Island Reef. The site plan complements this management regime where possible.

5.2 Protection of conservation values

Anchoring or inappropriate mooring placement and design can damage fragile coral communities, especially when they are recovering from phenomena such as bleaching events and crown-of-thorns starfish. Careful consideration is required to determine appropriate locations for vessel anchorages and moorings.

6. Current management strategies

6.1 Zoning Plan

The reefs and waters surrounding Normanby Island Reefs and Russell and Round Island Reefs are within the Great Barrier Reef Marine Park (Commonwealth) and the Great Barrier Reef Coast Marine Park (State).

The waters adjacent to Normanby Island Reefs (including Mabel Island Reef) are zoned Marine National Park (Green) Zone.

The waters adjacent to Round and Russell Island Reefs are zoned Conservation Park (Yellow) Zone, with Russell Island being zoned Commonwealth Island Zone down to the mean low water mark.

The *Great Barrier Reef Marine Park Zoning Plan 2003* designates the following Special Management Areas over the Frankland Islands Sector, which apply to the number of dories that may be detached from a primary commercial fishing vessel at any time:

- Mabel and Normanby Islands No Dories Detached (Marine National Park Zone) Special Management Area
- Frankland Islands One Dory Detached (Conservation Park Zone) Special Management Area.

A No Structures Policy (NSP) is also in place over the Frankland Islands Sector. The objective of the NSP is to ensure that the area remains in a natural state, largely unaltered by human works and free from structures and permanently moored facilities (for example, glass bottom boat), except for approved vessel moorings, facilities for research or management, and navigation markers. For more information, go to the Permit Information Bulletin on [*No Structures Policy*](#).

6.2 Cairns Area Plan of Management

The GBRMPA released the *Cairns Area Plan of Management* (CAPOM) in June 1998 to provide strategies for protecting values of the offshore areas from Cairns and Port Douglas, the Ribbon Reefs, Lizard Island and the Frankland Islands. A number of amendments have been made to the CAPOM to reflect continued changes in use.

The following is a summary of the major strategies in the *Cairns Area Plan of Management 1998* relevant to the Frankland Islands Sector:

- The fringing reefs are identified as low use Locations. Low use Locations allow for a maximum of 15 people per vessel or aircraft (including crew) and apply to both recreational and commercial users.
- In addition to being low use Locations, the waters and reefs within the Frankland Island Sector are identified as having special values (nature conservation, cultural and heritage, scientific or use) and are defined as Sensitive Locations.
- Tourism operators who hold a relevant permission to visit this Sector must book to visit the Cairns Planning Area and book to visit Sensitive Locations. The booking limit for the Frankland Islands is one (1) vessel per day. (Note: The daily operator does not have to book)
- Vessels over 35 metres may not anchor within the Locations.
- Motorised water sports and hovercraft are not permitted within the Locations.
- Anchoring is restricted within a 50 metre radius of a permitted private and public mooring. The GBRMPA encourages permitted private mooring owners to develop agreements to allow others to use their mooring when they are not using it. A register of mooring owners and their contact details has been developed and is available on the GBRMPA website.

Note – Exemptions may apply to the above provisions for historical operators.

For more information on the CAPOM see [*Cairns Area Plan of Management*](#) on the GBRMPA website.

6.3 Frankland Group National Park Management Plan

The national park islands of the Frankland Group are managed in a complementary manner and are subject to the provisions of the *Frankland Group National Park Management Plan 1998*. The major provision of this plan that relates to site planning is the strategy of separating tourist operations from recreational users by limiting tourist operations to Normanby Island.

For more information see [*Franklands Group National Park*](#) on the QPWS website.

7. Site planning strategies

7.1 *Small Vessel Access*

On the north-western side of Russell Island Reef, a small vessel access area is marked on Map 3. The area is suitable for vessels with a shallow draft and is an area where boats are known to anchor when accessing the island. The area is predominantly bare sand patches and is relatively protected from the south-easterly winds.

7.2 *Private Moorings*

Normanby Island Reefs – currently two permitted private moorings.
Normanby Island is visited daily by a commercial operator.

Russell and Round Islands Reefs – one permitted private mooring.

This mooring is provided to allow the existing daily operator at Normanby Island to provide a transport service to people camping on Russel Island. Continued access for local recreational use is a high priority under this plan.

There will be no increase in the number of private moorings at these sites.

7.3 *Public Moorings* –

Five public moorings have been installed, two near Normanby Island Reef and three near Russell Island Reef. To view locations refer to Maps 2 and 3.

8. References

Great Barrier Reef Marine Park Authority, *Great Barrier Reef Marine Park Zoning Plan 2003*.

Queensland Parks and Wildlife Service, *Marine Parks (Great Barrier Reef Coast) Zoning Plan 2004*.

Great Barrier Reef Marine Park Authority, *Cairns Area Plan of Management 1998*.

Queensland Parks and Wildlife Service, *Frankland Group National Park Management Plan 1998*.

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Ayling, A M and Ayling A L, 1995. *A Preliminary Survey of Benthic Communities on Fringing Reefs in the Middle Cairns Section*. Final Report prepared for the Great Barrier Reef Marine Park Authority.

Great Barrier Reef Marine Park Authority, 2002, *Disturbance and recovery cycles long-term monitoring on 'unlucky' inshore fringing reefs in the Cairns Section of the GBRMP*, Reef Research, Volume 10, no. 1, p. 5-8.

McKenzie, L., 2003, Queensland Fisheries Service – Northern Fisheries Centre, pers. comm.

Queensland Department of Environment, 1997, *Island Park Guide - Frankland Islands National and Marine Parks*.

Queensland Parks and Wildlife Service, 1999. Benthic Surveys Frankland Island Group - 23rd January 1999. Internal Report held in Key Sites Files.

Policy on Moorings in the Great Barrier Reef Marine Park, May 2002, Great Barrier Reef Marine Park Authority.

National Shipwreck Database. Commonwealth Department of Environment and Heritage web site. <http://eied.ea.gov.au/nsd/public/welcome.cfm>

GBRMPA Mooring Register
http://www.gbrmpa.gov.au/corp_site/key_issues/tourism/moorings

Australian Institute of Marine Science, Long Term Monitoring Project
<http://adc.aims.gov.au:9555/waReefPage/servallreefs>