

TONGUE REEF SITE PLAN

(Prepared August 2001)

Note 1: On 1 July 2004, the Great Barrier Reef Marine Park Zoning Plan 2003 came into effect. It changed the zoning and activities allowed in zones for the Marine Park. Tongue Reef is now zoned Habitat Protection Zone and Marine National Park Zone, for more information please refer to the Zoning Plan and maps.

Note 2: Pursuant to paragraph 4.2.1(1)(b) of the Zoning Plan 2003, the following Special Management Area has been designated over Tongue Reef:

- Tongue Reef No Dorries Detached (Marine National Park Zone) Special Management Area.

1. Background

The Cairns Area Plan of Management was gazetted in 1998 after being prepared in accordance with the *Great Barrier Reef Marine Park Act 1975*. The Cairns Planning Area comprises many places, biological communities and species of high nature conservation, scientific and cultural value. The Plan aims to protect and conserve these values, while allowing for a range of opportunities.

An important strategy of the Plan is detailed, site-specific management of an identified area. 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.

Site plans were prepared for the following Locations: 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 planning occurred progressively and draft plans were presented for comment to all the interested parties. Site plans for Lizard Island Localities 2 and 3 were finalised in August 1999, while the remaining draft plans were discussed at site planning meetings held in Cairns and Port Douglas from 11 to 14 December 2000. All comments received were considered in the preparation of the final plans.

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, moorings 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

Tongue Reef is a crescentic reef covering an area of 21,330 ha. It is situated within the Cairns Section at latitude 16°19' longitude 145°49' (Figure 1). Tongue Reef is not a single reef but rather a reef complex made up of a number of individual reefs and numerous shoals and bommies. In the north-eastern section, the four largest reefs are commonly referred to as the 'Four Sisters'.

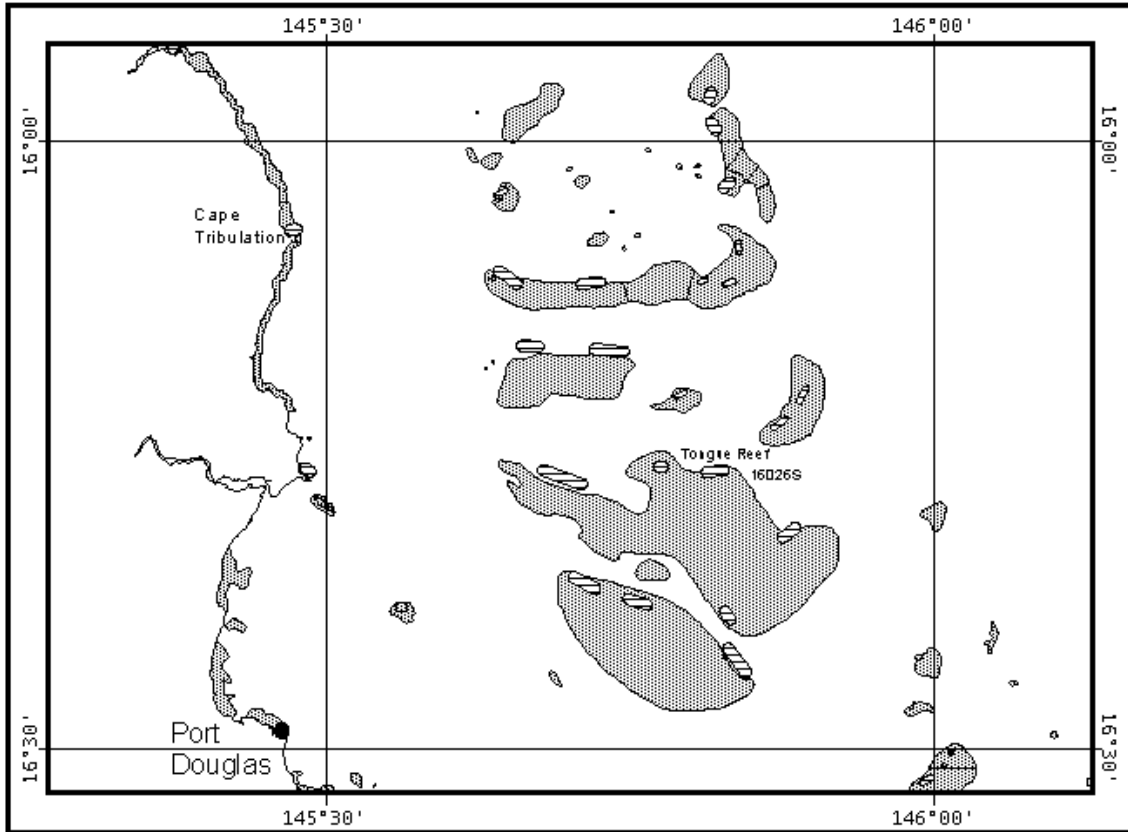


Figure 1: Location of Tongue Reef in the Offshore Port Douglas Sector

4. Values

4.1 Coral

Coral cover varies considerably over the range of habitats within this reef complex (Ayling 1983). No detailed studies on the diversity of coral at this site have been conducted. Tourism operators indicate that the coral environment is generally most attractive in an area known as Turtle Bay on the north-eastern end of the 'Third Sister' of Tongue Reef.

4.2 Seagrass

There have been no recent official seagrass surveys conducted at Tongue Reef. No seagrass was found during QPWS site surveys.

4.3 Fish spawning

Fish spawning aggregation sites have been identified at Tongue Reef. Further research and monitoring will be undertaken to establish the significance of these sites.

4.4 Commercial

Tongue Reef is entirely within the Habitat Protection Zone. All fishing except trawling is allowed. To date 19 permits have been issued for collecting beche-de-mer, six for collecting trochus shells and 32 for collecting marine aquarium fish. There are no coral leases on Tongue Reef.

4.5 Recreation

Tongue Reef is readily accessible from Port Douglas in prevalent weather conditions. The reef is a popular anchorage and is often visited by recreational fishers.

4.6 Tourism

Tongue Reef is currently only lightly used as a tourist destination. Only one tourist operator holds a permit for two vessels to visit daily, with a combined passenger capacity of 55. During the 1998/99 year, 16,462 tourists visited Tongue Reef. There is one permitted mooring system at the reef.

4.7 Cultural

Tongue Reef and the surrounding area is likely to be of interest to a number of local Aboriginal groups including the Bamaga Bubu Ngadimunku Incorporation representing the traditional inhabitants of Mossman Gorge.

4.8 Research and monitoring

There are no current research permits for access to Tongue Reef.

5. Summary of submissions received – Cairns Area Plan of Management

The draft Cairns Area Plan of Management was released for public comment in August 1997. A total of 160 submissions were received on the Plan. Of the 160 submissions received 10 referred to Tongue Reef.

Examples of comments received:

“Increase the mooring allocation for a number of reefs. Tongue reef should be raised to 14” (submission #1035)

“The number of moorings on ...Tongue (reef) ...is inadequate.” (submission #1075)

“There needs to be 2 small navigation markers on Tongue reef” (submission #1075)

“There is a huge area of Tongue Reef that no one ever visits. I do not think the whole of Tongue Reef should be low density as it is a huge reef” (submission #1047).

“Additional moorings (required on) Tongue is 8” (submission # 1116).

Comments received also refer to the need for a second mooring and the need to shift the existing mooring at Turtle Bay (Third Sister) at Tongue Reef as not to inhibit access to other users (submission #1157).

6. Issues

6.1 Appropriate balance of use (mooring and anchoring)

There is currently only one permitted mooring system at Tongue Reef. A total of five reef anchorages have been designated at Tongue Reef. A further seven mooring systems are allowed at this location. Turtle Bay is one site at Tongue Reef, which is in demand by tourism operators. Past conflict has also been the result of mooring placement in what was considered a cultural significant reef area to indigenous people of the area. Mooring placement and allocation will need to be carefully considered to ensure equitable access to all users.

6.2 Protection of conservation values

Anchoring or inappropriate mooring placement and design can damage fragile coral communities. The designation of reef anchorages and pre-selection of potential mooring sites required an assessment of the bio-physical characteristics of identified areas to ensure that conservation values are upheld.

Fish spawning aggregation sites (FSASs) have been identified at the Location. There is potential for disturbance of spawning activity by tourism activity during spawning episodes. FSASs will need to be considered in the selection of new mooring or reef anchorage sites.

7. Current management strategies

7.1 Cairns Section Zoning Plan (Zoning Map: BRA Q 156)

Tongue reef and the waters surrounding it are within the Great Barrier Reef Marine Park and are zoned Habitat Protection Zone under the Zoning Plan. Line fishing, commercial netting, bait gathering, limited collecting, diving, and trolling are allowed within the waters surrounding Tongue Reef. Trawling is prohibited.

7.2 Cairns Area Plan of Management

The Cairns Area Plan of Management was released by the Great Barrier Reef Marine Park Authority 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. The following is a summary of the major strategies in the Cairns Area Plan relevant to Tongue Reef.

- Tongue Reef is identified as a low use location with group size limits of 15 people. Limits of use are determined by known values such as cultural and natural values, scientific significance, existing use and zoning.
- The Plan allows eight permitted moorings at Tongue Reef and identified five Reef Anchorages.

8. Site planning strategies (refer to figure 2)

8.1 Reef Anchorages

There are five designated Reef Anchorage sites identified at Tongue Reef. No further Reef Anchorages have been proposed. Consultation with interested parties at the Site Planning meeting raised concern on the actual positioning of the designated Reef Anchorages. The designated Reef Anchorages have been modified to address issues raised in the Site Planning meeting and are shown in figure 2.

In summary, Reef Anchorages 1 and 2 have been somewhat reduced in size as to exclude areas of significant coral cover identified during site assessments. The main changes to the shape of the Reef Anchorages as rectangles occurred to provide four reference points to designate the anchorage rather than centroids of circles. Schedule 8 of the CAPOM will be amended to reflect these changes.

8.2 Private Moorings

Due to the large area in which moorings may be placed, there is little value in proposing a range of sites for the seven new mooring systems. Instead, successful applicants will need to specify the proposed site for their mooring, subsequently allowing management staff to assess their application subject to meeting all other requirements, including assessment and decision processes under the Regulations, suitability of installation sites, buffer zones for FSAS and the presence of designated Reef Anchorages.

8.3 Public Moorings

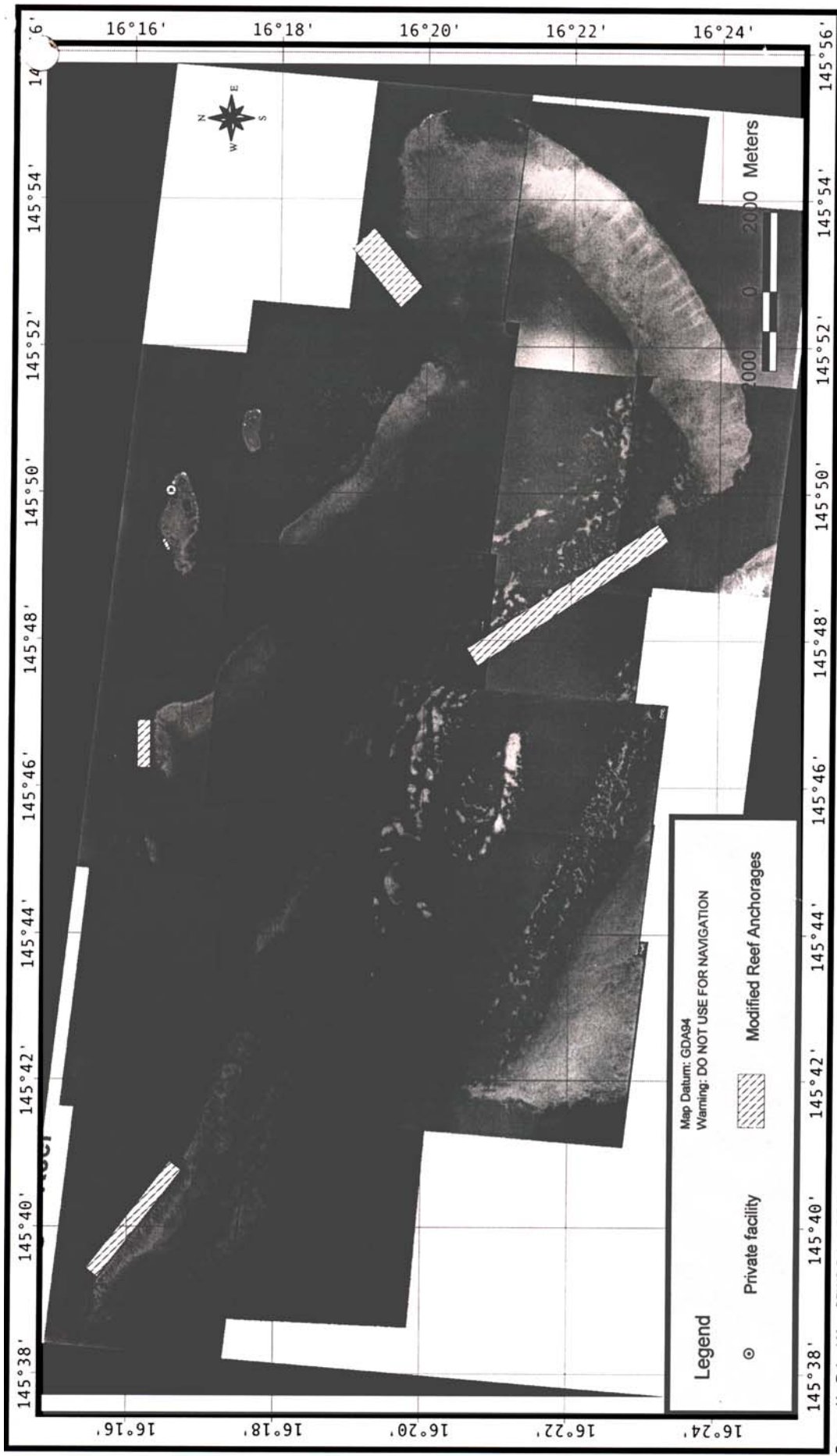
No public moorings have been proposed for Tongue Reef at this time. Reef Anchorages should provide sufficient access to all areas of the reef.

9. References

Ayling, A.M. 1983, Distribution and abundance of coral trout species (*Plectropomus spp.*) in the Cairns Section of the Great Barrier Reef Marine Park. Unpublished report to GBRMPA, Townsville.

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

Great Barrier Reef Marine Park Authority 1997, *Submissions to the Cairns Area Plan of Management*, Great Barrier Reef Marine Park Authority, Townsville (unpublished).



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Figure 2: Tongue Reef Site Plan