

OPAL 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. Opal Reef is now zoned Conservation Park 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 Areas have been designated over Opal Reef:

- Opal Reef No Dorries Detached (Marine National Park Zone) Special Management Area.
- Opal Reef One Dory Detached (Conservation Park Zone) Special Management Area.
- North Opal Reef Public Appreciation Special Management Area.

Note 3: In December 2004, the *Cairns Area Plan of Management 1998* was amended. The amendments provided greater flexibility for larger vessels and vessels with large group sizes. At Opal Reef up to 100 passengers are allowed on a vessel if it is moored at a permitted mooring.

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

Opal Reef is an outer shelf crescentic reef with an area of 24.7 sq km. It is located within the Offshore Port Douglas Sector at latitude 16°13 longitude 145°53.5 (Figure 1). The gazetteer code for Opal Reef is 16-025.

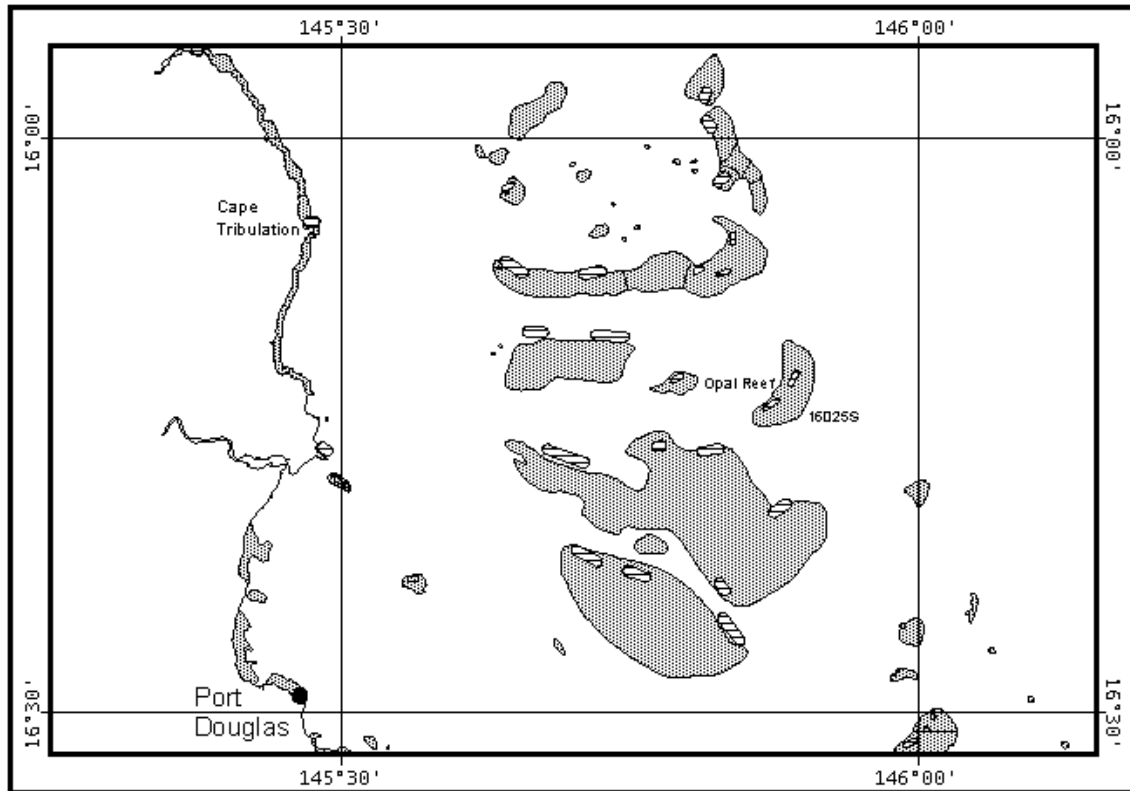


Figure 1: Location of Opal reef in the Offshore Port Douglas Sector

4. Values

4.1 Coral

Broadscale surveys have been undertaken by the Australian Institute of Marine Science on this reef six times since 1986. Surveys have shown no appreciable change in coral cover, which remains at moderate levels. However, more recently crown of thorn starfish have been occurring in increasing numbers on Opal Reef resulting in considerable damage to areas of high aesthetic value.

4.2 Seagrass

There have been no recent official seagrass surveys conducted at Opal Reef. No seagrass was found during QPWS site surveys. It is thought to be unlikely that seagrass will be present in the reef area as conditions are unfavourable.

4.3 Fish spawning

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

4.4 Commercial

Fishing and commercial collecting is prohibited in the National Park Zone of Opal Reef. The buffer zone allows for trolling only. All fishing except trawling and commercial collecting of coral and shells is permitted within the Habitat Protection Zone (HPZ). Overall, the following permits which allow access to the HPZ have been issued: 19 permits for collecting beche-de-mer, six for collecting trochus shell and 32 for collecting marine aquarium fish.

4.5 Recreation

Opal Reef is a considerable distance offshore from Port Douglas and access for most of the year is restricted to larger vessels. Recreational users with larger vessels may use this location at regular intervals due to its sheltered access during stronger winds.

4.6 Tourism

Opal Reef is regularly visited by a number of tourist vessels. In the period 30 June 1998 to 31 March 1999 approximately 28,700 tourists visited the reef. Currently, three tourism operators, with the capacity to carry a total of 121 passengers, have permits to visit the reef and anchor daily. Two tourism operators with the capacity to carry a total of 72 passengers have permits to visit the reef without anchoring ie. use of moorings. There are 380 tourism operators who hold 'roving' permits for Opal Reef.

4.7 Cultural

Opal 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

Opal Reef is one of the reefs surveyed annually by the Australian Institute of Marine Science as part of their Long-term Monitoring Program. There is one current permit for research conducted specifically on Opal Reef (G99/281).

QPWS research officers are conducting a High Use Monitoring Project on a number of reefs in the GBRMP including Opal Reef. The project uses video monitoring to assess the impact of high levels of use on the reef. The project commenced in June 1999 and surveys will be annual and sporadic depending on conditions.

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 25 referred to Opal Reef.

Examples of comments:

‘Opal Reef is the biggest concern as this is the most easily accessed outer reef in the Port Douglas Sector.....with Opal being the only quality reef in the Port Douglas Sector offering sheltered mooring in bad weather there is a need for at least 20 moorings,.’ (submission no 1010)

‘There is no provision for northerly wind conditions on green reefs in particular Opal Reef. Anchoring on sand makes my job very unsafe and almost impossible’ (submission no 1047)

‘There are more moorings in these areas than necessary’ (submission 1074)

‘Many more moorings needed especially at popular reefs such as Opal.... The more moorings allowed, the less chance of anchor damage’ (submission 1092)

‘How about sacrificing South Opal and not allowing any moorings or any more pontoon structures on any other reef locations’ (submission 1124)

‘North Opal is a very small reef and is popular to the mother boats and game boats in the season, it is a lovely natural spot and is not frequented by the dive boats, we would prefer to see this location left untouched’ (submission 1124)

6. Issues

6.1 Appropriate balance of use (mooring and anchoring)

There are currently 8 installed permitted mooring systems at Opal Reef (see attachment for details). The CAPOM identifies five designated Reef Anchorages where no new moorings are allowed to be installed.

The public consultation process on the draft Cairns Area Plan of Management (August 1997) raised issues about anchoring access away from tourism operations and opposing views on the need for more vs no new moorings. The CAPOM allows for four new moorings to be installed at Opal Reef.

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. Broad surveys of all potential sites were conducted and their suitability as mooring sites or reef anchorages was assessed.

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

7. Current management strategies

7.1 Cairns Section Zoning Plan (Zoning Map: Cairns BRA Q156)

The reefs and waters surrounding Opal Reef are within the Great Barrier Reef Marine Park. The northern part of Opal Reef is zoned Habitat Protection Zone and is open to all fishing except trawling. The southern section of Opal Reef (south of 16°13.5) is zoned as National Park Zone under the Zoning Plan and allow diving, boating, anchoring and photography. Activities which are prohibited in this zone include line fishing, trolling, bait gathering and netting, commercial fishing, spearfishing and collection of coral or shells. The waters surrounding the southern section of the reef are zoned as Buffer Zone. Prohibited activities in Buffer Zones are the same as for the National Park Zone, with the exception of trolling and bait netting for pelagic species. The reefs and waters surrounding Opal Reef are also within the no structures sub zone.

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 Opal Reef.

- Opal Reef is identified as a moderate use location. There is a group size limit of 60 people.
- Sections of Opal Reef have been designated as Reef Anchorages. These are preferred anchoring sites where the Authority will not permit the installation of any new private moorings or pontoons.
- There are 8 existing permitted private moorings with a further 4 allowed. No anchoring will be allowed within a 50 metre radius of a permitted mooring.

8. Site planning strategies (refer to figure 2)

8.1 Reef Anchorage

There are five designated Reef Anchorages at Opal Reef. Comments from interested parties during site planning meetings were considered and as a result all Reef Anchorage boundaries will require modification. Schedule 8 of the CAPOM will be amended to reflect the changes outlined below.

Reef Anchorage RA 1 was extended to cover most of North Opal, allowing sufficient space for one mooring at the south-eastern end with a 50 metre buffer, subject to detailed site assessment (see figure 2).

Reef Anchorage RA 2 was extended length ways along the northern end of Opal Reef (see figure 2).

Reef Anchorage RA 3 was extended to form a continuous area combining the two existing designated Reef Anchorages (see figure 2).

A designated Reef Anchorage at South Opal was found to be a poor anchorage with significant deeper water coral cover. The designated Reef Anchorage will therefore be removed from Schedule 8 of the CAPOM.

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 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 Opal Reef at this time, as Reef Anchorages should provide sufficient public access to the reef.

9. References

Sweatman, H. Bass, D, Cheal, A, Coleman, G, Miller, I, Ninio, R, Osborne, K, Oxley, W, Ryan, D, Thompson, A, and Tomkins P. 1998, *Long-term Monitoring of the Great Barrier Reef - Status Report Number 3*. Australian Institute of Marine Science. 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).



Figure 2: Opal Reef Site Plan