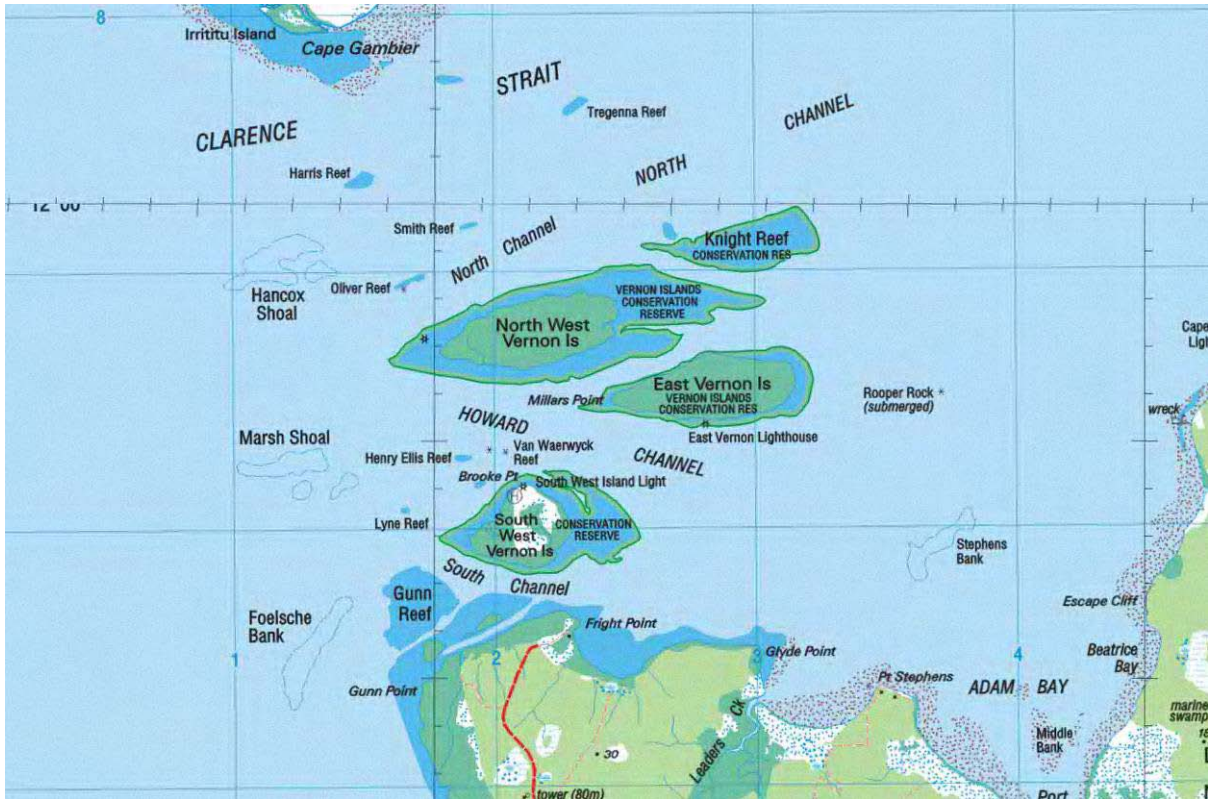


VERNON ISLANDS

Conservation Management Plan



Tiwi Land Council

May 2013

BACKGROUND

The Vernon Islands are located in the Clarence Strait in the Northern Territory, between the Australian mainland at Gunn Point and Melville Island's southernmost point, Cape Gambier. Philip Parker King named the islands in May 1818, honouring the Archbishop of York Edward Venables-Vernon-Harcourt.

There are three major islands making up the Vernon Islands group, plus a large reef and numerous lesser reefs and sand islands (Figure 1). The islands are low lying, with a maximum height of 4 metres above mean sea level. There are small areas of sandy beach where access is relatively easy, and each island has numerous small creeks that enable access inland past the mangrove thickets. Much of the area around the islands, including the reefs, are exposed at lower tides (Graham, 2008).

The islands are generally fringed with mangroves and surrounded by mud flats and rocks/reefs at low tide. In clearer waters hard corals such as *Acropora* and *Montipora* predominate, and extensive coralline algal terraces are developed in the reef complex (IMCRA, 1998).

While oceanic currents exert only minor influence on the region, the area is dominated by strong internal circulation with little oceanic interaction. This results in strong and complex currents between and around the Vernon Islands, and turbulent wave action during monsoon conditions (Smit et. al., 2000).

Tiwi islanders sometimes refer to the group of islands as the Pottinga Islands, comprising Kulangana, (Southwest Vernon Island), Warabatj (Northwest Vernon Island) and Muma (East Vernon Island) (Graham, 2008).

In 1974 the Vernon Islands and Knight Reef were declared crown reserve 1444 under Section 103 of the Commonwealth Crown Lands Ordinance, and under the management of the Conservation Commission of the NT. In 1979 the area was named under the *Territory Parks and Conservation Act* as the Vernon Islands Conservation Reserve. Despite this, the area does not have any legislative conservation status. The current reserve covers an area of 24.6km².

In 2005 the Northern Territory's Parks and Conservation Masterplan proposed an International Union for the Conservation of Nature (IUCN) Class 1A protected area for the Vernon Islands reserve to the low water mark. 1A is the highest category of protected area recognised by the IUCN, and NRETAS recommended the following criteria:

- Permanently set aside
- Conserves natural biodiversity, geological, or geomorphological diversity and/or cultural values
- Allows for scientific research under permit, and education consistent with the purposes of the reserve
- Public enjoyment and recreation, other than education regarding the values of the area, is not part of the reserve's purpose
- Excludes uses not compatible with conservation of the natural, scenic and cultural values (NRETAS, 2005)

In 1998 the Vernon Islands and surrounding area was declared a Beneficial Use Area for aquatic ecosystem protection under the *Water Act 1992*. The area was re-declared in 2010, adding cultural and recreational beneficial uses (Figure 2). The purposes of the declaration are to:

- a) Provide water to maintain the health of aquatic ecosystems, and
- b) Provide water to meet aesthetic, recreational and cultural needs.

Water quality objectives for these beneficial uses have been defined, and include chemical, biological and ecological indicators.

In 1978 a claim was lodged for the Vernon Islands under the *Aboriginal Land Rights (Northern Territory) Act 1976*, and the case went to hearing in May and September 2008, and again in April and May 2009. The Tiwi claim to ownership of the Vernon Islands was accepted by all relevant parties, and the Aboriginal Land Commissioner ordered parties to come to an extra-curial agreement. One of several issues requiring resolution is the design of a conservation management regime agreed between the NT Government and the Tiwi Land Council.



Figure 1: Vernon Islands and Knight Reef



Map Grid of Australia (MGA), Zone 52
 Universal Transverse Mercator Projection
 Horizontal Datum: GDA 94 Vertical Datum: AHD (metres)
 Design File : Vernon-Is_BU_m52

LEGEND

- Limit of Declaration area
- Mangrove / coastal flats
- Highway / minor road
- Coastline / creek

Prepared by the Natural Resources Division, Department of Natural Resources, Environment, the Arts and Sport (NRETAS), June 2009.
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MAP LOCALITY



DECLARED BENEFICIAL USES:

1. The protection of environment and cultural (aesthetic, recreational and cultural) are the beneficial uses of water that apply to all freshwater and marine waterways in the Vernon Islands area.
2. For declaration and detailed description see Northern Territory Government Gazette No. G27, 7 July 2010.



**DECLARATION OF BENEFICIAL USES
 and OBJECTIVES OF SURFACE WATER
 Vernon Islands**

Figure 2: Beneficial Use Area - Vernon Islands

VALUES

The natural values of the Vernon Islands relate primarily to the marine environment of the area as a whole, which includes extensive and species rich mangrove forests, a rich reef system, rocky shelves and stacks, and seagrass and algal beds (Calnan, 2006). Coral reefs are widely distributed throughout the region, and the Vernon Islands are an important coral reef locality (NRETAS 2005). There are also a small number of naturally occurring deep holes ("Blue Holes") in the reefs surrounding the Vernon Islands, which are up to 20m deep and support coral communities with a high species diversity. The endemic anemone fish *Amphiprion spp.* is also found on the Vernon Islands' coral reefs (Calnan, 2006).

According to Calnan, the number of corals and molluscs have been noted to be higher in the Vernon Islands area than Darwin Harbour, and more similar to the reefs found in the Garig Gunak Barlu National Park. The South West Vernon Island reef slopes support up to 75% cover of hard corals, which is rare in near shore northern coastal waters (Calnan, 2006).

The waters surrounding the Vernon Islands support populations of dugong and turtles, and studies have shown that dugong spend a considerable amount of time on intertidal rocky reefs within Darwin Harbour and the Vernon Islands (Whiting, 2002).

The recreational values of the Vernon Islands relate primarily to fishing and boating, although there are shipwrecks in the area and the Blue Holes can be popular for divers. The islands are easily reached from the mainland via Leaders Creek and Buffalo Creek boat ramps, and giant trevally is a popular target fish. There are numerous other species for fishers, including barracuda, barramundi, billfish, black jewfish, blue salmon, cobia, cod, groper, coral trout, golden snapper, mangrove jack, moonfish, queenfish, red emperor, tarpon, threadfin salmon, tuna and mud crab (website: Territory Guided Fishing). Visitor numbers are unknown, but in 2004 Leaders Creek Fishing Base recorded 2,614 boats using the public boat ramp with an average of 3 people on board (Calnan, 2006).

The cultural values of the Vernon Islands relate to the continued use and spiritual beliefs of the Tiwi, Larrakia and Wulna. Tiwi Islanders used the islands as staging posts as they travelled to and from the mainland in canoes to capture mainland women, and for hunting dugong and turtle. They also believe that their creative ancestor, Mudunkala, created the Tiwi Islands and all of the waters and coastline, including Clarence Strait (Graham 2008). The Vernon Islands remain an important spiritual, hunting and fishing area for Tiwi Islanders.

SCOPE & INTENT

This Plan refers to the area of the Vernon Islands Claim No. 9, and states the intent of the Tiwi Land Council, on behalf of the Mantiyupwi Landowning Group, in its management. There are ongoing discussions between the NT Government and the Tiwi Land Council relating to fisheries and aquatic access, and this plan will form part of those negotiations. The Plan will be periodically updated to reflect current agreement.

MANAGEMENT

The Vernon Islands Claim area will be managed in accordance with the following general objectives:

- the preservation of the area in its natural condition and protection of special features
- the minimisation of impacts on the natural environment resulting from human activity and the introduction of weeds and feral animals
- the protection of Aboriginal cultural and contemporary historical values
- interpretation of the features of the area through public relations material and events.

Management of natural and cultural resources

The importance of the sea, its access and resources, is evidenced through decades of Land Council business addressing and discussing coastal issues, and investigations into sea closures as early as 1980. Tiwi leaders have long had to deal with competing interests between landowners, recreational and commercial fishing, industry fishing and farming interests, tourism, government, researchers and public lobby groups. The importance of coastal and marine resources to Tiwi people continues to create significant issues around uncontrolled access, and of major concern is the trend towards increased effort by recreational fishers and fishing tour operators, the impact this may have on fish stocks, and the risk of introducing pest species.

In response to ongoing coastal issues, the Tiwi Land Council approached the NT Government in 2000 with a proposal for a Tiwi Marine Ranger programme, with the first ranger commencing duties in 2001. The main function of the ranger position was to provide a visible presence within the broader fishing community, and to monitor and record fishing activity. Other duties included the provision of a liaison and advisory service to tour operators and local residents. The programme was so successful that it formed the model for other Indigenous Marine Ranger Programmes elsewhere in the Top End.

The Tiwi Marine Ranger Programme is now well established, with three Marine Rangers (all with international Coxswain qualifications) supported by two Assistant Marine Rangers. There are three in survey vessels attached to the programme, one each located at Pirlangimpi and Milikapiti (Melville Island), and Port Hurd (Bathurst Island).

Marine Rangers are active in patrolling and monitoring Tiwi waters, as well as liaising with local people and visitors. They also engage with local industry and government, and are crucial advocates for Tiwi aspirations in coastal and marine management.

In March 2013 senior members of the Mantiyupwi Landowning Group instructed the Tiwi Land Council to include the Vernon Islands in the day to day management area of the Tiwi Islands Marine Ranger programme. In addition, they resolved to apply the same management protocols to the Vernon Islands that exist across the rest of the Tiwi Islands; that is no additional recognition in terms of legislated park areas, and permit requirements for access to the land, creeks, streams and estuaries as defined in the *Blue Mud Bay case*, 2008.

Management activities

- Tiwi Marine Rangers will carry out regular patrols and ongoing monitoring, focussing on:
 - weeds and/or feral animals
 - marine debris
 - unusual events such as fish kills or unseasonal algal blooms
 - visitor numbers
- In order to monitor potential impact, permits will be required to access the land, creeks, streams and estuaries of the area. Permits will be issued and managed by the Tiwi Land Council.

Communication and external relations

Members of the fishing and boating community have long used the Vernon Islands for recreational purposes. Their close proximity to Darwin, relative ease of access, historically good fishing and special features such as the Blue Holes have made them a popular destination. With the change in land tenure of a significant portion of the area, the development and dissemination of information and interpretive materials will be critical for developing visitor appreciation and respect.

Other groups and organisations also have a stake in the use and management of the area, and they can play an important role in encouraging their members to recognise the values and significance to Tiwi people, and the part they can play in their protection.

Management activities

- The Tiwi Land Council will issue a press release and be available for media interviews once the Claim is finalised, and prior to the requirement for permits to enter areas falling under the Tiwi Land Trust.
- Concurrently, the Tiwi Land Council will prepare and disseminate communication materials (brochures, fact sheets, web pages) clearly explaining the land tenure, and the significance of the Vernon Islands to Tiwi people. Material will include clearly labelled maps for ease of interpretation.
- The Tiwi Land Council will maintain liaison in the management of the area with other stakeholders, including but not limited to NT Government, Amateur Fishermen's Association of the NT and Larrakia Nation.

REFERENCES

Calnan, T (2006) An assessment of the conservation values of the Gunn Peninsula/Vernon Islands area and the impacts of the proposed Glyde Point heavy industry and residential estate. Prepared for ECNT and AMCS, Darwin.

Graham, R (2008) Vernon Island Land Claim Draft Anthropology Report Before the Aboriginal Land Commissioner, Darwin.

IMCRA Technical Group (1998) Interim Marine and Coastal Regionalisation for Australia: An ecosystem-based classification for marine and coastal environments. Department of Sustainability, Environment, Water, Population and Communities, Canberra.

NRETAS (2005) Northern Territory Parks and Conservation Masterplan (Draft). Department of Natural Resources, Environment the Arts and Sport, Darwin.

PWCNT (2001) A Strategy for the Conservation of Marine Biodiversity in the Northern Territory of Australia (Draft). Parks and Wildlife Commission of the Northern Territory, Palmerston.

Smit, N, Billyard, R, Ferns, L (2000) Beagle Gulf Benthic Survey: Characterisation of soft substrates (Introduction). Technical Report No. 66, Parks and Wildlife Commission of the Northern Territory, Palmerston.

Whiting, S (2002) Rocky reefs provide foraging habitat for dugongs in the Darwin region of Northern Australia, *Australian Mammalogy* 24(1) 147 - 150