



# Lalang-gaddam marine parks visitor plan

Version 1 – 2021



Department of Biodiversity,  
Conservation and Attractions



Lalang-gaddam  
marine parks

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# Lalang-gaddam marine parks

## visitor plan

Version 1 – 2021

**Aarbulaardoo Ngayeye (welcome everyone), to the Lalang-gaddam marine parks, part of Dambeemangardee Country.**

We want to tell you about who we are, so that you know when you travel through the marine park. Many people now refer to us as Dambeemangardee people, historically you may have seen it spelt as ‘Dambimangari’. Dambimangari was how the word in our language was spelt when it was transcribed through the modern Australian western system as our native title was legally determined by consent in 2011. We are choosing to spell it how it is correctly pronounced, which is Dambeemangardee. This is how the word appears in this document unless referring to our native title representative body, Dambimangari Aboriginal Corporation.

Similarly we are now using the spelling Lalang-gaddam to represent the correct pronunciation of the marine park. This is how the word appears in this document unless referring to specific gazetted parks; Lalang-garram/ Camden Sound Marine Park, Lalang-garram/ Horizontal Falls Marine Park and North Lalang-garram Marine Park.



## Vision Statement

Working together with Dambeemangarddee and responsible users to respectfully protect and maintain the unique remote wilderness that is environmentally diverse and rich with cultural traditions to offer exceptional visitor experiences.

# Abbreviations

AAPA	Aboriginal Affairs Planning Authority
AIS	Automated Identification System
AMSA	Australian Maritime Safety Authority
CALM	Conservation and Land Management
CASA	Civil Aviation Safety Authority
DAC	Dambimangari Aboriginal Corporation
DBCA	Department of Biodiversity, Conservation and Attractions
DoT	Department of Transport
DPIRD	Department of Primary Industries and Regional Development
DPLH	Department of Planning, Lands and Heritage
GBRMP	Great Barrier Reef Marine Park
HFSA	Horizontal Falls Seaplane Adventures
IAATO	International Association of Antarctic Tour Operators
ILUA	Indigenous Land Use Agreement
JMA	Joint Management Agreement
JMB	Joint Management Body
KMTA	Kimberley Marine Tourism Association
KPA	Kimberley Ports Authority
KPIs	Key performance indicators
MARPOL	The International Convention for the Prevention of Pollution from Ships

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# Executive Summary

The wild and remote Kimberley coastline is one of the last remaining relatively unspoilt coastlines on earth. This coastline is also recognised as one of the world's most ecologically diverse marine areas. Much of this coastline lies within Dambeemangarddee people's native title determination area. For thousands of years Dambeemangarddee people have depended on and looked after their traditional land and saltwater country.

Much of this coastline forms part of the three Lalang-gaddam marine parks including Lalang-garram / Horizontal Falls, Lalang-garram / Camden Sound and the North Lalang-garram joint management marine parks. The Lalang-gaddam saltwater country is gaining increasing recognition and popularity as a tourist destination. The completion of a sealed road to Cape Leveque is also likely to enable additional recreational boat access to the marine parks. If not managed sensitively, increasing levels of marine tourism and recreation have the potential to impact on the sensitive environment and culturally significant places in the marine parks and may detract from the sense of remoteness and wilderness sought by visitors.

Above the high water mark (marine park boundary), access arrangements are the responsibility of the Dambimangari Aboriginal Corporation (DAC) and the Aboriginal Affairs Planning Authority (AAPA) via the Department of Planning, Lands and Heritage (DPLH). Tour operators and other visitors are directed to [dambimangari.com.au/visitor-location-schedule](http://dambimangari.com.au/visitor-location-schedule) for further information.

It is the mutual interest of government, Dambeemangarddee people, broader community and the tourism industry to see the unique values of the Kimberley coastline maintained. There is a timely opportunity to undertake a collaborative approach to planning for tourism and managing visitors, to draw on experiences from other sensitive environments around the world, to ensure that the unique values of the Kimberley coast are conserved for future generations.

The purpose of this visitor plan is to ensure sustainable and culturally appropriate visitor usage that retains the pristine natural qualities while supporting an outstanding visitor experience.

This plan is a guiding document for decision-making in relation to visitor access, managing the wilderness experience and tourism operations within the marine parks.

## Lalang-gaddam marine parks management

The Lalang-gaddam marine parks are managed by a Joint Management Body (JMB) comprising Department of Biodiversity, Conservation and Attractions Parks and Wildlife Service (DBCA) and Dambimangari Aboriginal Corporation (DAC). The JMB oversees management of the parks, makes management decisions, provides strategic input into how management strategies are implemented, and monitors implementation of the marine park management plans. Operational responsibility is coordinated by DBCA, under the guidance of the JMB.



*Ganbadba (Talbot Bay)*

In the context of increasing visitation to the parks, concerns for visitor safety and interest from the tourism industry, the JMB commissioned the preparation of this visitor plan. This visitor plan:

- is informed by other world-class marine visitor management approaches;
- guides the JMB in managing sustainable and culturally appropriate visitor use across these parks;
- ensures that visitors continue to have a quality experience by maintaining the values within the marine parks and managing access in some areas; and
- complements DAC management of neighbouring (exclusive possession native title) terrestrial estate

This visitor plan is consistent with the statutory management plans and zoning schemes for the marine parks and provides detailed visitor access management at key locations throughout the Lalang-gaddam marine parks.

## Traditional owners

Dambeemangarddee people have responsibilities to their country and to those who visit it with profound obligations ingrained within traditional law and culture. There are rules for appropriate behaviour when in saltwater country and when visiting important cultural places. Joint management with DBCA provides a partnership to support Dambeemangarddee people in meeting these obligations and fostering appropriate behaviours among visitors. Much of the adjacent lands are exclusive possession native title, entrusted in and managed by DAC on behalf of the traditional owners. Future management of the marine parks and any management decisions and strategies that form a part of this visitor plan are informed by and complement Dambeemangarddee aspirations detailed in the Dambimangari Healthy Country Plan(s) and other land, cultural, business and employment

management plans. Dambeemangarddee representatives on the JMB for the marine parks have advised that they do not support the development of further tourism facilities in the marine parks at this time. As this visitor plan evolves it is anticipated that it will continue to address the key themes centred around the protection and conservation of the cultural, natural and wilderness values, with balance to maintain a sustainable visitor experience.

## Tourism

The most common form of tourism in the parks is expedition cruising with multi-day tours operating in the dry season between Broome and Wyndham and Broome and the Northern Territory. Future visitation to the area is expected to see growth and diversification in the types of marine tourism opportunities being offered. This includes house boats, sea plane activity and the use of small, high speed vessels (fast boats) to cover large distances for day tours. It is anticipated that demand for visitor facilities will increase, such as land-based infrastructure at key sites (on Dambeemangarddee-managed lands), and marine-based commercial tourism facilities such as fixed-point floating accommodation and visitor facilities.

All tour operators in any of the marine parks require a licence to operate under the *Conservation and Land Management Act 1984* (CALM Act) and *Conservation and Land Management Regulations 2002* (CALM Regulations).

The Kimberley Marine Tourism Association (KMTA) is a member based, industry representative body. The KMTA is committed to creating longevity and partnership operations for tourism within the region [kimberlymarinetourism.com](http://kimberlymarinetourism.com).

## Recreation

Recreational visitation is currently limited to a small number of private yachts, large super yachts and recreational fishing vessels. However, changes in boating technology and the sealing of the Cape Leveque Road are likely to result in an increase to recreational visitation and future review of this plan will need to address this and provide specific management approaches. The ability for management to communicate effectively with recreational visitors requires different methods from those used with licenced commercial tourism operators.

## Targeted Consultation

Targeted consultation was undertaken with the Kimberley marine cruise industry. A mixture of interviews, presentations and workshops were conducted between February 2019 to April 2019. This was supplemented by extensive discussions with tour operators, and marine and shipping authorities from 2017 to 2019.

In consultation with the Department of Transport (DoT), an aquatic use review was carried out for the *Garaangaddim* (Horizontal Falls) area.

## Visitor plan direction

There is growing concern among stakeholders including DBCA, traditional owners and the KMTA that the Kimberley coast represents a shared resource that is increasingly under pressure from tourism including more operators, more tours and larger tour groups. Given the exceptional values of the Kimberley coast and the opportunity to ensure appropriate management strategies are applied before significant change occurs, it is agreed by industry, traditional owners and DBCA that a strategic and precautionary approach is appropriate. Management approaches identified in this visitor plan are informed by other world-class marine attractions (including the Great Barrier Reef, Galapagos Islands, Antarctica) where a mixture of regulatory (licencing, fees) and voluntary (codes of conduct) approaches have been utilised. This visitor plan maps out 'Visitor Experience Settings' addressing visitor use, anchorage and destination management to ensure a spectrum of visitor experiences are maintained with regard to the three key values; protection and conservation of Aboriginal culture, ecological biodiversity and unique wilderness experience.

Within this visitor plan key directions for the management of visitor activities in the parks have been identified and developed. Through the planning process and targeted consultation the need for regulation of specific sites and anchorages that are experiencing visitor pressures have been identified.

A detailed approach to the management of key sites requiring protection and management of visitor safety and experience is outlined. These key sites include *Garaangaddim* (Horizontal Falls), *Yowjab* (Montgomery Reef), *Ngumbree* (Raft Point) and *Mambulbada* (Kings Cascade) in the Prince Regent River. Whilst there are numerous unpublicised anchorages and destinations across the parks, the plan focuses on the most visited locations and anchorages.

The successful implementation of this visitor plan will ensure sustainable and culturally appropriate visitor usage. Key considerations during the planning process included:

- promoting opportunities for Dambeemangarddee people at all levels of tourism enterprise;
- exploring visitor capacity for Lalang-gaddam marine parks;
- encouraging industry cooperation and self-management to ensure visitor experience is retained;
- considering the need to define maximum vessel capacity for key anchorages;
- considering the need to identify areas where anchoring is not permitted to manage safety, cultural and environmental values; and
- exploring management strategies with industry.

This plan is a dynamic document and will be subject to regular review by the JMB. An initial review after two years is anticipated following the first edition being published and distributed to stakeholders. This visitor plan will be amended on an as needs basis; to mitigate a safety concern or to allow for adaptive management.

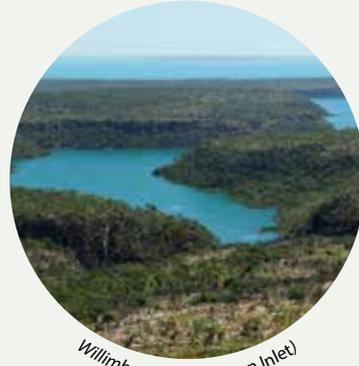
# Parks snapshot



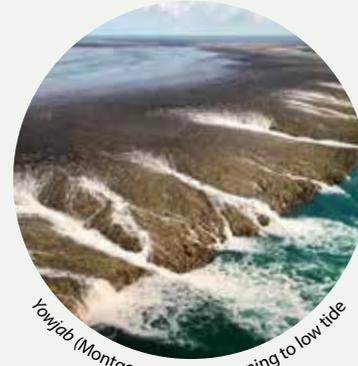
Transiting Garaangaddim (Horizontal Falls)



Towing tenders in Ngalygaany (Saint George Basin)



Willimburrurr (Sampson Inlet)



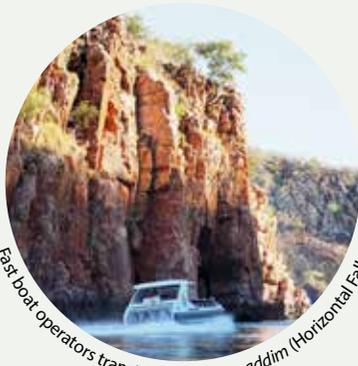
Yowjab (Montgomery Reef) running to low tide



Commercial tour operators accessing Mambulbada (King Cascades)



Breaching Humpback whale in Camden Sound



Fast boat operators transiting Garaangaddim (Horizontal Falls)



Boutique 35m+ vessel anchored at Garaangaddim (Horizontal Falls)



Float plane landing in Ganbadba (Talbot Bay)



Touring yacht anchored in Ganbadba (Talbot Bay)



Saltwater crocodile warming up at Red Cone



Paspaley Pearls Kuri Bay operation



Boutique commercial tour operator leaving Willimburrurr (Sampson Inlet)

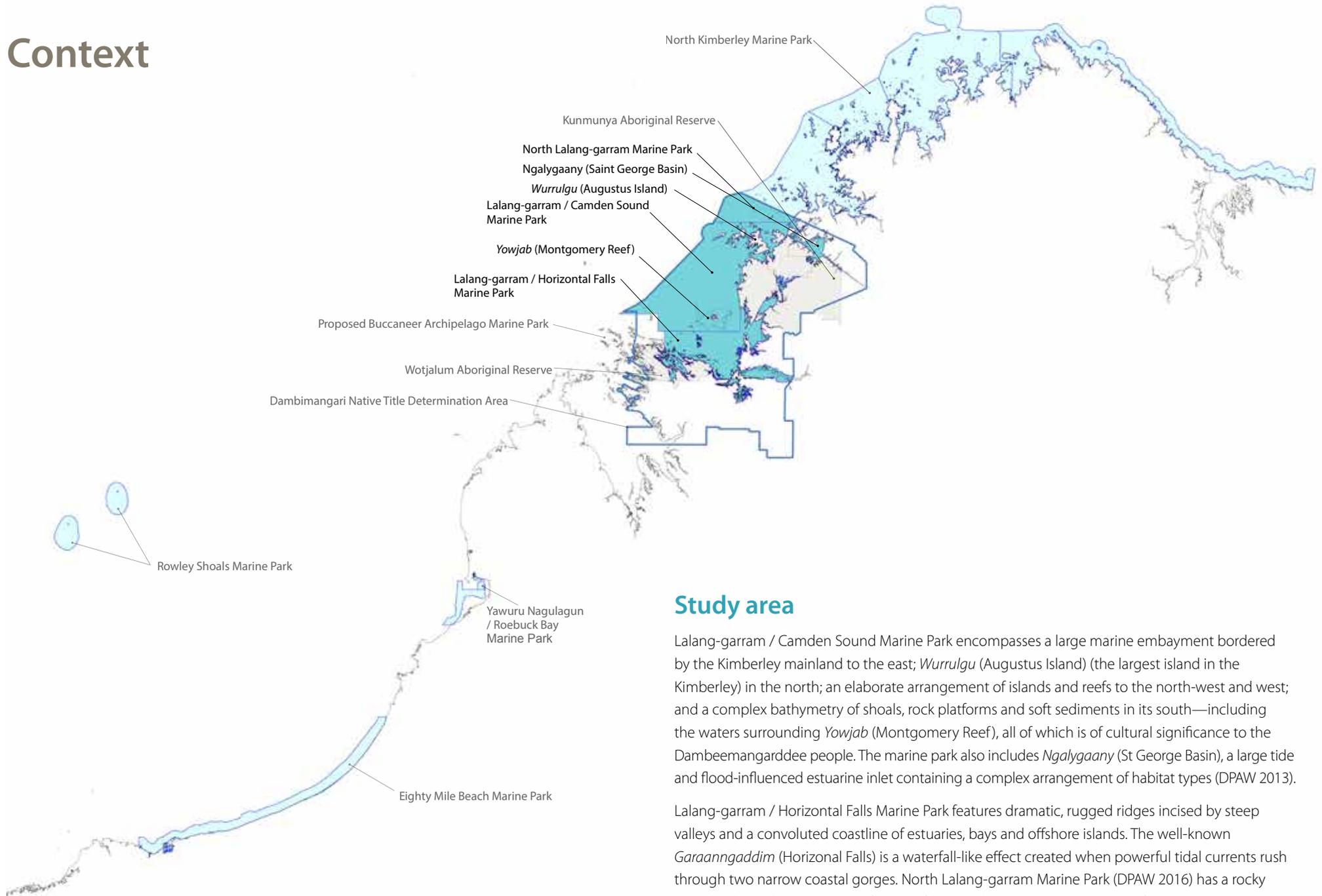


Guided cultural tours to rock art sites



Fishing trip on tender in Wotjulum (Coppermine Creek)

# Context



## Study area

Lalang-garram / Camden Sound Marine Park encompasses a large marine embayment bordered by the Kimberley mainland to the east; *Wurrulgu* (Augustus Island) (the largest island in the Kimberley) in the north; an elaborate arrangement of islands and reefs to the north-west and west; and a complex bathymetry of shoals, rock platforms and soft sediments in its south—including the waters surrounding *Yowjab* (Montgomery Reef), all of which is of cultural significance to the Dambimangarddee people. The marine park also includes *Ngalygaany* (St George Basin), a large tide and flood-influenced estuarine inlet containing a complex arrangement of habitat types (DPAW 2013).

Lalang-garram / Horizontal Falls Marine Park features dramatic, rugged ridges incised by steep valleys and a convoluted coastline of estuaries, bays and offshore islands. The well-known *Garaanngaddim* (Horizontal Falls) is a waterfall-like effect created when powerful tidal currents rush through two narrow coastal gorges. North Lalang-garram Marine Park (DPAW 2016) has a rocky coastline including a number of islands fringed with *wooddooroo* (coral reefs).

Key visitor attractions within the study area include:

- Nature and culture-based recreation and tourism. Visitors can participate in wildlife watching, visiting cultural sites and visiting scenic sites such as waterfalls.
- Remote seascapes, including reefs, rocky shores, cliffs and gorges along rivers and estuarine systems, mudflats, *jindim* (mangroves) and *galaab* (beaches) are a significant drawcard for visitors (DPAW 2013).
- Exploring the remote and isolated Kimberley landscapes where opportunities exist for solitude, inspiration and self-reliant recreation.
- Recreational fishing, popular in the Kimberley, and gaining recognition for the quality of sport and game fishing targeting *iledda* (barramundi) and *doolja* (mangrove jack). Recreational fishing is predominately carried out from commercial charter operators and private vessels.

Traditional ownership and sound environmental management would usually consider sea and land together. While management arrangements currently separate sea and land, DAC undertakes its own planning and decision-making for exclusive possession native title lands on behalf of the Dambeemangarddee people. The marine parks are managed under the CALM Act. This visitor plan focuses on strategies under the CALM Act to manage visitors.

## Access

Most visitors to the marine parks arrive by boat or seaplane. The southwestern boundary of Lalang-garram / Horizontal Falls Marine Park is approximately 180 nautical miles north west of Broome by boat and approximately 140 nautical miles by air. Typically, tour operators will begin their journey to the parks with an overnight travel from Broome to the adjacent Buccaneer Archipelago, reaching the park by the late afternoon. Other origin ports for cruise vessels visiting the parks include Wyndham, Darwin and Cairns.

Seaplanes will make the trip from either Broome, Cape Leveque or Derby reaching the southern boundary of the parks (typically heading to *Garaanngaddim* (Horizontal Falls)) within 30 minutes.

Commercial tour operator fast boats are now accessing the park from the west, leaving from Cockatoo Island and arriving at *Garaanngaddim* (Horizontal Falls) within one hour.

## Land access

Above the high water mark (which is the marine park boundary), access arrangements are the responsibility of the DAC and the AAPA via the DPLH. Tour operators and other visitors are directed to the website [www.dambimangari.com.au/visitor-location-schedule](http://www.dambimangari.com.au/visitor-location-schedule) for further information.

This website contains a list of sites (the Visitor Location Schedule) where visitors have traditional owner permission to access if they have obtained a Dambimangari Visitor's Pass and/or an AAPA lands permit via DPLH as applicable. The sites listed in the schedule have been identified by visitors as places where tourists have been going in the past (mostly without the required permission) and would like to continue to access in the future to enjoy a mix of natural, cultural and historic visitor experiences. For cultural reasons not all sites previously accessed by visitors are on the schedule.

## Tides

The West Kimberley region has the largest tides in Australia and third largest in the world with tidal ranges exceeding 11 metres. The impact of this tidal range is compounded by semi-diurnal tides (two full tide cycles per 24-hour period).

The Lalang-gaddam marine environment is heavily influenced by these huge tides and the currents they create. Ecological processes and Indigenous culture and connection to the environment have evolved with an inherent association to these tidal movements. The vast intertidal zones created are globally unique and are of significant conservation value (DPAW 2013) as well as providing rich areas for Dambeemangarddee people, past and present, to carry out customary activities.

The rhythm of daily life moves with the tides including the scheduling of modern-day tourism itineraries. Visitation, navigation and access to key sites and beaches is dependent on the cycle of tides. Specific tidal movements will dictate when it is safe to view or access sites such as *Mambulbada* (Kings Cascade), Ruby Falls, *Garaanngaddim* (Horizontal Falls) and *Yojab* (Montgomery Reef).

Whilst the tides play a key role in shaping the cultural and natural environment, it also increases congestion, competition and user conflict at high use sites given the short windows of opportunity to access the sites and limited opportunity to schedule around other vessels.

# Access

## Legend

Access by sea 

Access by air 



# Management instruments

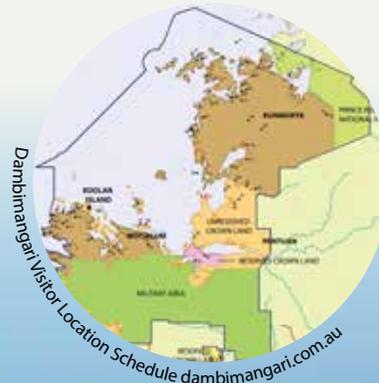
The three Lalang-gaddam marine parks are jointly managed with Dambimangari Native Title Holders under an Indigenous Land Use Agreement (ILUA) and associated Joint Management Agreement (JMA). Dambeemangarddee people are represented by DAC. DBCA and DAC provide overarching management decisions via a Joint Management Body (JMB) given authority via the JMA.



Lalang-garram / Camden Sound Marine Park Management Plan



Lalang-garram / Horizontal Falls and North Lalang-garram marine parks Management Plan



Beach in Ngalygaany (Saint George Basin)

## Management planning

Management plans are in place for all three parks (1. *Lalang-garram / Horizontal Falls and North Lalang-garram Marine Parks Joint Management Plan 2016 Management Plan 88* and 2. *Lalang-garram / Camden Sound Marine Park Management Plan 73 2013 - 2023*) providing the JMB with management strategies and key performance indicators (KPIs) to address and monitor progress against. The KPIs are outlined in the table below:

Key performance indicator	Consideration
Aboriginal Culture & Heritage	An increase in pressure through growth in or changing methods of visitation may impact on Dambeemangarddee culture and heritage values.
Cultural connection, traditional knowledge and customary use; cultural laws and protocols	Visitation to Dambeemangarddee lands and waters needs to be respectful of cultural laws and protocols.
Culturally significant sites	Visitation to cultural sites needs careful and considerable management to ensure there is no degradation to significant sites.
Wooddooroo (coral reef) communities	Intertidal reef walking has been identified as a threat from both a cultural and ecological perspective.
Seawater	An increase in visitation and vessels over time has the potential to impact on water quality on both local and park wide scales. This relates particularly to waste water discharge and an increase in shipping activity.
<i>Wuliji (whales)</i>	There are numerous strategies within the management plans relating to the protection of <i>wuliji</i> (whales) (adults, juveniles and calves) from disturbance and risk of vessel strike.
<i>Jigeedany (dolphins)</i>	An increase in pressure through growth in or changing methods of visitation (eg fast boats) will increase physical disturbance and risk of vessel strike.
<i>Jalawadda (turtles)</i>	
<i>Walyn (dugongs)</i>	
Nature Based Recreation and Tourism – visitor attractions	The tourism industry in the Kimberley is growing and changing and requires consultation and careful management to ensure the unique Kimberley experience is maintained.

The zoning schemes and numerous strategies outlined in the management plans have directly informed the development of the recommendations outlined in this plan.

Enforcement of these zones and permitted activities within the parks is primarily via the CALM Act and CALM Regulations.

## Regulated access

Regulated access is required in some areas to manage visitation and protect cultural, environmental and experiential values as detailed in the Lalang-gaddam marine parks management plans and the Dambimangari Healthy Country Plan. Access over water throughout the parks is currently unrestricted with the exception of foot access and landing on intertidal reefs; both of which are restricted for tour operators through commercial licence conditions. The CALM Regulations provide the ability to restrict access to specified areas on foot or to restrict vessel access, speeds or anchoring in order to protect natural features, flora or fauna, Aboriginal culture and heritage and/ or for visitor safety.

A gazettal process under the CALM Regulations for “Restricted Areas - access on foot” – (no reef walking) is required. Areas that may require gazettal for restricted access include Yowjab (Montgomery Reef), Turtle and Dugong Reefs in Talbot Bay, Kingfisher, Viney and Caesar Island reefs and Jungulu Island reefs in North Lalang-garram Marine Park. These locations are identified on the Regulated Access Plan on page 16.

The anchorage guideline sections in this visitor plan outline the areas that have been identified as requiring restricted anchoring access to address cultural, environmental and sustainable visitor experience concerns raised by the JMB and through the targeted consultation process. The restricted anchoring access could be addressed in the future through a booking and scheduling system. Speed limits and temporal closures are other examples of restricted access mechanisms available to manage visitation.

## Marine park patrols

DBCA undertake regular marine patrols during the dry season (April - November) throughout the parks. These patrols are complemented by air patrols and Department of Primary Industries and Regional Development (DPIRD) patrols. Dambimangari Rangers and other Dambeemangarddee people regularly join DBCA on patrols along with other DBCA specialist staff including marine scientists. Patrols centre around specific park management actions including maintaining Dambeemangarddee culture (sites and knowledge sharing), marine research and monitoring, monitoring visitor patterns, visitor risk management, education and enforcement activities and managing remote sensing equipment (sea surface temperature loggers etc.). These patrols also facilitate face to face contact opportunities with tour operators in the parks.

The Dambimangari Rangers also conduct patrols throughout the parks when undertaking on country management on adjacent land including weed control, ‘Right Way’ fire, checking cultural sites and beach clean ups.

# Management of tourism operations

Licensed tour operators provide services that allow visitors to experience the natural environment of Western Australia's national and marine parks and other conservation reserves. They also underpin the regional tourism industry which provides an important economic contribution.

Tour operators are licensed to conduct their business in the Lalang-gaddam marine parks. The ecological, cultural and wilderness values of the parks are the basis for the tourism product. Use and visitation requires careful management to ensure that these values are conserved and that visitor experiences are maintained (DPAW 2013). Research indicates that when people have a positive experience of nature in a park, they are likely to become advocates for the conservation of that place.

Legislation that governs the management of the State's parks and reserves requires operators to obtain a licence to conduct their activities, to abide by specific conditions and to pay fees and charges towards conservation and the maintenance of the licensing system. By issuing licences, DBCA regulates and authorises access and activities for tour operators. DBCA's *Commercial Operator Handbook* outlines the standard conditions for tour operators and additional park specific licence conditions.

The marine park management plans outline permitted tourism activities in each management zone i.e. sanctuary, special purpose, recreation and general use zones. Licences granted by DBCA are required to be consistent with the management plans. The licence conditions ensure environmental, cultural and visitor management objectives can be achieved.

Many activities are also regulated under other legislation, such as, wildlife interactions, the disposal of sullage and recreational fishing. Commercial operations licences issued by DBCA require operators to adhere to all other relevant legislation. Further information can be found at the DoT Marine website [www.transport.wa.gov.au/imagine/marine-information.asp](http://www.transport.wa.gov.au/imagine/marine-information.asp), the Australian Government Federal Register of Legislation [www.legislation.gov.au](http://www.legislation.gov.au), and the Government of Western Australia Legislation website [www.legislation.wa.gov.au](http://www.legislation.wa.gov.au).

## Unrestricted ('T' class) licences

Unrestricted 'T' class licences are available for periods of two months to 10 years with different levels of accreditation required depending on the period of the licence.

Two-month short-term licences are granted to operators that conduct seasonal tours only, or for interstate and international operators who operate irregular tours to Western Australia.

Assessment of licence applications in this category are straight forward where the activity is consistent with the management plan for the park and the *Commercial Operator Handbook*.

In some cases, the JMB may choose to conduct a higher level of assessment, which may increase the time needed for a licence to be processed.

There are currently in excess of 28 unrestricted 'T' class licences for tour operations within the planning area.

Unrestricted 'T' class licences will continue to be reviewed in line with the management plans, the Commercial Operator Handbook and this visitor plan, with particular reference to the anchorage guidelines and cumulative effect of additional licences on the parks.

## Restricted ('E' class) licences

'E' class licences are required when there are environmental, management, safety, or access reasons why licence numbers must be limited, for example when demand for licences exceeds the number that can be sustainably managed.

When progressing restricted commercial development opportunities in the State's parks and reserves, DBCA is guided by its *Corporate Policy Statement No. 8 – Negotiating Commercial Development and Activities* and other relevant State Government policies such as the *Market-Led Proposals Policy*. DBCA may apply a competitive process or it may undertake negotiations directly with a proponent. Where it is likely that there is more than one proponent interested in the opportunity, and there is a need to assess the benefits of one over another to ensure the best outcome for the parks is achieved, a competitive process is applied.

Restricted 'E' class licences are generally allocated through a competitive process to allow DBCA to determine the most suitable operator(s) to achieve the best outcome for the JMB, traditional owners and the State. Where there is a pre-existing operator established in an area before a park is created, a restricted 'E' class licence can be issued without a competitive process in recognition that the operator has an established business. Operators pay a higher licence charge for a restricted 'E' class licence that reflects the commercial advantage they receive by operating in a restricted market.

Restricted 'E' class licences can be granted for periods of up to 10 years and may be renewed for up to a further five. After this time, the restricted opportunity is then offered through another competitive application process, usually an expression of interest.

Currently, Horizontal Falls Seaplane Adventures (HSFA) operating at *Garaanngaddim* (Horizontal Falls) is the only restricted 'E' class licence holder within the Lalang-gaddam marine parks authorised to operate semi-permanent accommodation and facilities. This operator existed prior to the creation of the marine park.

In relation to further marine-based semi-permanent commercial tourism development in the marine parks, Dambeemangarddee representatives on the JMB for the marine parks have advised that they do not support the development of further facilities in the marine parks at this time.

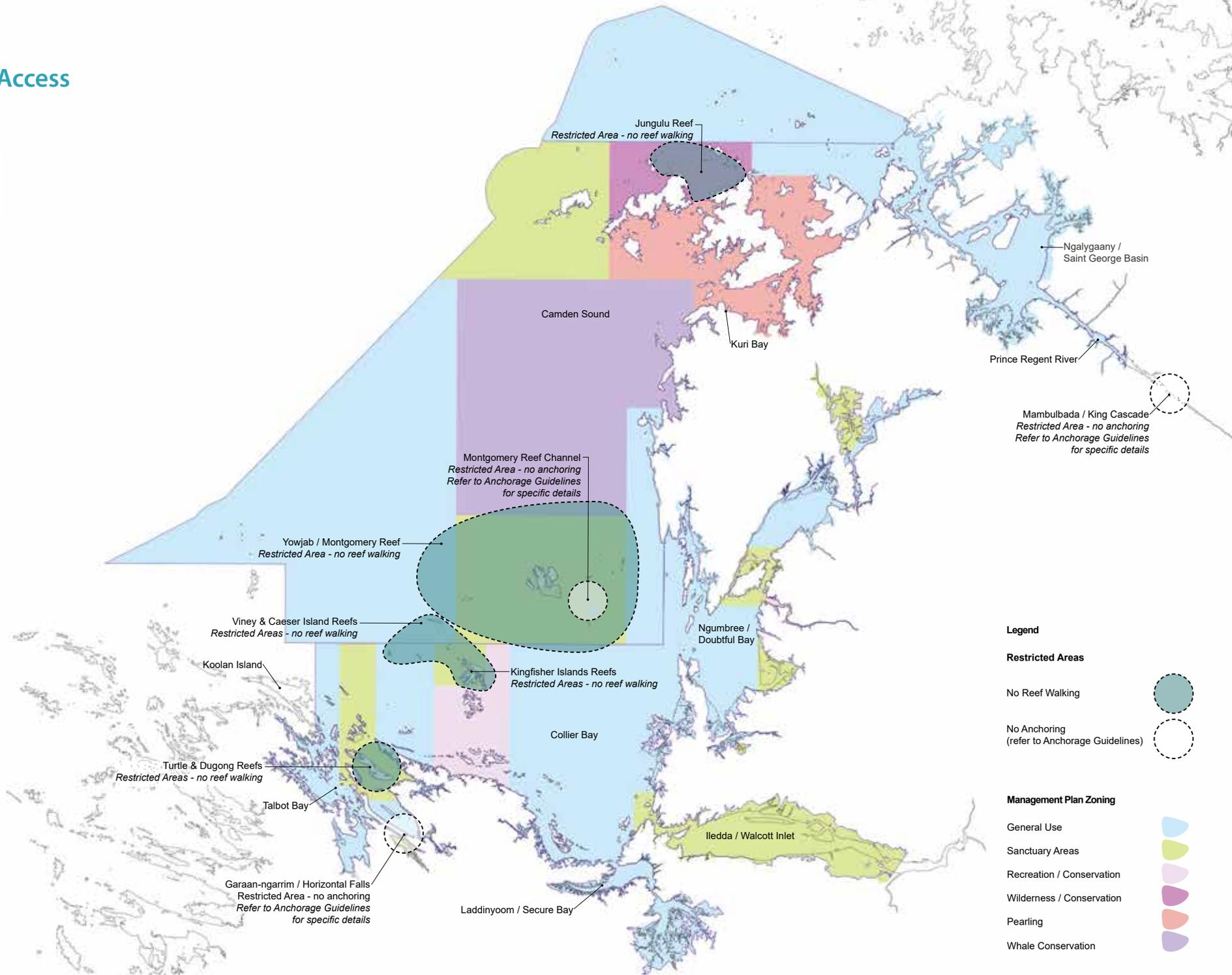
It may be appropriate in the future to transition commercial operator licences from unrestricted 'T' class to restricted 'E' class to manage visitation and protect cultural and environmental values. Considerable planning and negotiation with operators would be required to manage this transition.

## Monitoring visitation

A key component of successfully managing visitation in natural areas and to maintain a world-class Kimberley tourism industry is monitoring visitation. This would entail the development of a Human Use Monitoring Plan to provide data including trends over time. The Human Use Monitoring Plan would allow assessment of visitation against the Visitor Experience Settings outlined in this visitor plan, visitor satisfaction and impact on other values including those related to cultural heritage. This information would inform future reviews of this plan and allow for adaptive management.

Sunset at *Garaanggaddim* (Horizontal Falls) looking west to *Mangoolaanbidji* (Slug Island)

# Regulated Access



# Site analysis

## Land and seascape character

The land and seascape character within the Lalang-gaddam marine parks are inseparable. Lalang-gaddam (salt water, 'the ocean') is typified by myriad islands, inlets, embayments, creeks, vast *jindim* (mangrove) fringes, and exposed *woodooroo* (reef systems) stretching out to the Timor Sea and Indian Ocean. Enveloping this is rugged terrain ranging from flat topped parallel sandstone and dolerite ridges and steeply eroded irregular escarpments in the south, to broad sandstone hills punctuated by imposing headlands and spectacular cliffs in the north.

These exceptional scenic qualities are a key attraction for visitors to the parks. Travelling through the parks, land and seascape read as a continual canvas.



### Scale

The scale of the surrounding landscape ranges from tall distant ranges, majestic sandstone headlands, broad bays, inlets and islands to the intricate detail of fractured rock adorned with rock art. The scale in the landscape is generally made up of a number of smaller elements such as mangrove communities, rocky beaches, expansive reefs that together form complex landscape assemblages. In contrast to the west, open water to the horizon is scattered with low lying outer islands.

### Form

Landform displays high contrast from smooth pleated ridges to jagged cliff faces and prominences. Tufted spinifex, broad swathes of acacia and cypress pine, lush valleys of clumping rainforest, punctuating palms and sculptural sandstone formations.

Water form ranges from wind swept broad open water expanses to the horizon to swelling flat water snaking amongst creek lines and consuming mudflats, mangroves and rocky shorelines.

### Line

An ever-present horizontal tidal band juxtaposes against dipped parallel strata of sandstone and irregular mangrove tree lines. Long curved sweeping bays, rugged headlands, vast horizon peppered with low curved islands and multiple ridge lines of coastal peaks.



## Colour

Saturated and luminous orange, white and brown sandstone cliff faces. Vegetation characterised by vibrant emerald greens with deep green accents through to parched straw and soft grey greens. Waters ranging from glacial milky green blue, muddy browns through to steely dark blues of open water. Punctuations of cream coloured beaches. Dark charcoal inflections amongst rocks, clefts and along rocky shorelines.



## Texture

The land and seascape are characterised by a contrast of textures. Smooth supple water, flowing translucent ribbons swirling to whirlpools. Choppy open water to mirror finish embayments. Strappy leaves, crunchy sandstone pebble beaches, rough rock strewn margins.



## Temporal

The sun casts a dramatic light from the first morning rays that fire the cliffs at sunrise, to the softer sinking of the sun in the west. Diurnal patterns on the waters from slack to raging tidal torrents and whirlpools brushed by dry season south easterly winds. A passing parade of estuarine (saltwater) crocodiles, humpback whales, dolphins and seabirds.

Unique tidal phenomena where 11m+ tides interact with reefs, cliff forms typified at *Garaangaddim* (Horizontal Falls) and *Yowjab* (Montgomery Reef).

Ganbadba (Talbot Bay)

# Cultural, heritage and social values

## Dambeemangarddee people

The name for our People comes from Dambeema, meaning “homelands” and -ngarddee meaning “belong to”. We are the People of the Wandjina (our creator ancestors) and Wunggurr (the creator snake). The Wandjina and Wunggurr made the law for us and our Country. We believe all the land, sea, heaven and all living things in our Country were put there by Wandjina and Wunggurr. They made the law and the rules by which we live. They set out the way we must look after Dambeemangarddee culture, plants, animals, people and Country to keep them healthy.

We are saltwater people who have been living along the coast for many thousands of years. Dambeemangarddee people traditionally eat food from the bush and the sea with saltwater fish, turtles, dugongs, crabs and oysters making up an important part of our diet. We have strong connections to our land through our law and culture and the spirits that created our Country. Our Country guides how we live, how we protect and care for our Country. Each tree, blade of grass, rock, fish, river, beach, is there according to the law of the Wandjina.

Our old people never forgot their country and we have been and still are caring for our country. In May 2011, the Federal Court recognised us, the Wandjina Wunggurr Dambeemangarddee, as the rightful traditional owners of our land and sea country by a consent determination at Yaloon (Cone Bay). Dambeemangarddee country was recently added to the National Heritage List, defined as part of the cultural landscape of the West Kimberley.

Today there are more than 700 Dambeemangarddee people. We live a different life to our Ancestors, but we remember where we come from and how to look after our Country. We now walk in two worlds, the modern world and the world of our traditional culture. Some of us live at Mowanjum, others live in Yaloon. Some live in Perth, others at Port Hedland, Broome and One Arm Point.

## Dambeemangarddee cultural sites

When we say cultural sites, we are talking about Wandjina and Wunggurr sites, our rock art sites, stone arrangements, burial sites and important camping beaches where our old people rested when they were travelling through saltwater country. Many sites can be found on saltwater country and on our islands.

The cultural sites are places that tell us about creation, how the earth was formed. They hold the traditional knowledge passed down from generation to generation. Sitting, talking and experiencing those places makes us feel close to our ancestors. They are part of our heritage. Each place tells a different story about how the Wunggurr and Wandjina created the rocks, the rivers and the ocean. Our belief is that all things in our country were put there for a purpose by the Wandjina. Our country has significant cultural sites with rules and responsibilities about how to look after it.

## Dambeemangarddee cultural responsibility

It is our cultural responsibility to visit all these important places regularly to check that they haven't been disturbed and are still healthy. We believe it gives happiness and comfort to our ancestors' spirits by visiting, working, protecting, and living on the land. It also reconnects us to that country. Living and breathing on country gives life and life is health.

Going to culturally significant places without a culturally appropriate guide brings up bad feelings and is against our law and culture. Going to a site without the right traditional owner makes these places unhealthy. Tourists visit sites on their boats and with helicopters without permission and without respecting cultural protocols. We, as the traditional owners carry the responsibility for these sites from our ancestors. We are punished when our cultural protocols are not followed. When we invite visitors to our country with proper ceremony, visitors come with a free spirit. The smoke from the smoking ceremony acts as a shield that covers visitors, so the spirit of the land accepts them (DAC 2012).

## Macassan and european history

The Macassans sailed from the island of Macassar in the eighteenth century, which today is known as Sulawesi. The town of Ujung Pandang is still an important Indonesian trading port today, but in the eighteenth century it was one of the largest cities in southeast Asia. The Macassans established camps along the Kimberley coast, seeking sea cucumbers known as trepang or beche de mer. These sea creatures were a delicacy and the Macassans fished and then processed their catch on site (ABC Kimberley 2013) establishing connections with Dambeemangarddee people.

Phillip Parker King, one of Australia's notable maritime explorers, anchored in Camden Sound in 1821 after negotiating the difficult Lalang-gaddam waters. Some of the maps prepared by King during his voyage are still in use today. While navigation charts are easily available to the modern mariner for most coastal areas, many areas in the Kimberley remain uncharted.

King named Camden Sound for the first Marquess of Camden, John Jeffrey Pratt, an English nobleman and politician who was a generous patron of the New South Wales colony in the early 1800s. Many of the names in the area were bestowed by King in recognition of friends, family and important people of the time. *Yowjab* (Montgomery Reef) was named for Andrew Montgomery, the surgeon on King's 1821 voyage. *Ngalygaany* (Saint George Basin) and other features named after a saint were named by King in appreciation of finding refuge and fresh water after a harrowing leg of his Kimberley journey. Other names of French origin, such as Champagne, were bestowed by the French explorer Nicholas Baudin who passed by the area in 1802.

## Present day

Today the Lalang-gaddam marine parks are key to the iconic cultural landscape status that the Kimberley has in the state, national and international consciousness. The parks remain as a living cultural landscape for Dambeemangarddee people. National terrestrial and marine parks in the Kimberley are going through formal processes to change site names back to the traditional Aboriginal names to recognise the cultural heritage and significance to the traditional custodians of the land. Many of the Dambeemangarddee names for locations are included in this visitor plan. The parks provide the cruise tourism industry and recreational visitors with accessible aboriginal culture, spectacular landscapes and fishing for a variety of estuarine and pelagic species. Experiential values including solitude, quiet, isolation and a sense of adventure and exploration are central to the Kimberley coast experience.

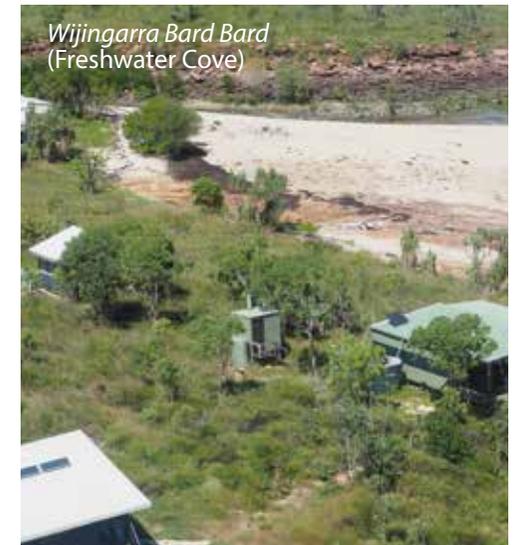
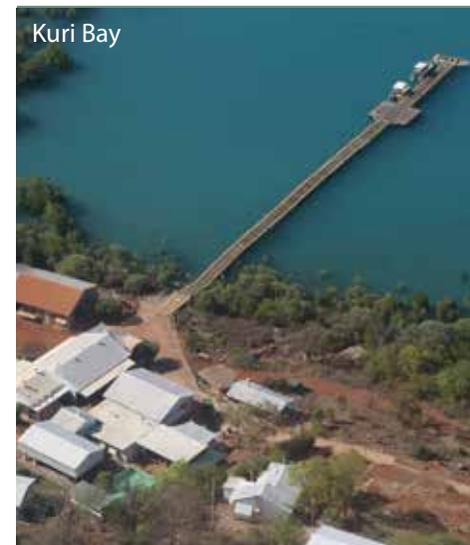
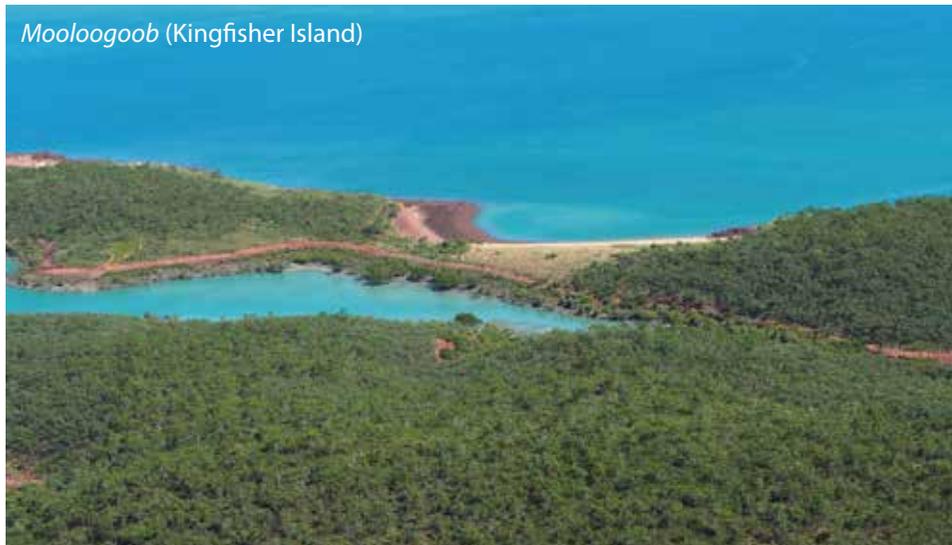
## Existing infrastructure and leases

There are no major developments within the marine parks and commercial activities are currently limited to tourism, commercial fishing and pearling. Adjacent to the parks, Koolan Island (active hematite mining operation) and Cockatoo Island (previous hematite mining operation now tourism operation) represent significant developed locations. Koolan and Cockatoo provide air access and airstrips for management and visitors respectively.

### **Mooloogoob (Kingfisher Island)**

The largest of Kingfisher Islands now includes a Crown lease area for the purpose of future tourist accommodation. While immediately adjacent to the park, this land is not administered under the CALM Act. To facilitate access to this lease, the Lalang-garram / Horizontal Falls Marine Park includes a Special Purpose Zone (recreation and conservation) on the north west and south east tidal areas.

This zoning allows for public access (likely from the west) and operator barge access (likely from the south east). For any proposed tourism infrastructure (marine and terrestrial), site assessments are required considering cultural and environmental impacts, land capability and visual landscape management.



## Kuri Bay

Kuri Bay is currently staffed by 10 employees (six on boat, four land based) for a pearling operator. A sportfishing tour company operates out of Kuri Bay under arrangement with the pearling operator with accommodation of patrons being within the Kuri Bay lease (3 LGE L659568) for up to 10 guests. The waters adjacent form part of the pearling operator pearling lease. This plan is not seeking to change this lease.

## Wijingarra Bard Bard (Freshwater Cove)

There are a series of small structures and facilities adjacent to the beach including visitor and staff accommodation, toilets, communal art shelter and workshop. These facilities provide a base for Wijingarra Tours that offer on country experiences of rock art, art sales and cultural tours.

## Willimburrurr (Sampson Inlet)

The pearling operator based at Kuri Bay and other vessels have used this location for a cyclone season refuge. The pearling operator has left pearling moorings and pontoons within the inlet to tie off to during weather events. Sampson Inlet forms part of the pearling operator pearling lease. This plan is not seeking to change this lease.



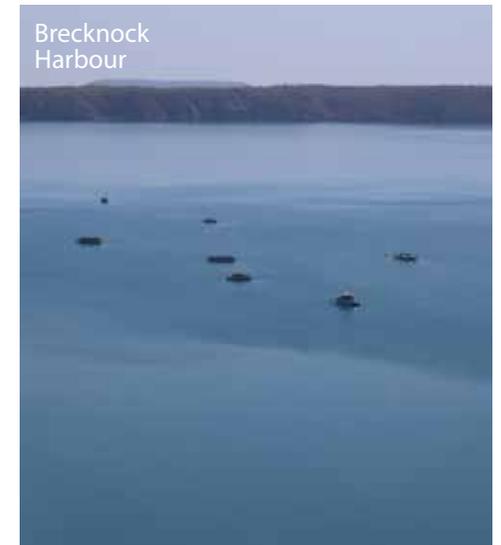
## Garaanngaddim (Horizontal Falls)

HFSA operates a semi-permanent, 100 metre long, floating platform, which is moored to the east of the falls entrance at a designated site in Talbot Bay under an 'E' class licence during the dry (tourist) season. The platform has two levels and provides visitor services including food and beverage and accommodation. It serves as a fixed base for running float planes, a helicopter, and fast-boat tourist experiences through the falls. The platform is moored in the nearby sheltered Cyclone Creek during the cyclone season.

Tucked into the south-eastern end of *Ganbadba* (Talbot Bay) and just adjacent to *Garaanngaddim* (Horizontal Falls) is Cyclone Creek, a sheltered anchorage with pristine scenery. The entrance to the creek is a narrow meander with dramatic vertical landforms on either side. Further in, the waters open up and offer options to explore the various tributaries with their combination of mangroves and interesting geologic features. Moorings in this site are used for the HFSA floating platform in the cyclone season. The HFSA operational area also sits within the Paspaley Pearling Company pearling lease. This plan is not seeking to change this lease.

## Brecknock Harbour

The pearling operator has several pearling leases in Brecknock Harbour and *Mingunj* (Port George). Within these lease areas pearling moorings, long lines and pontoons are located. Commercial tour operators continue to navigate through these areas without incumbrance or disturbance to pearling operations.



# Visitor analysis

## Patterns and observations

Local visitation typically originates out of Derby and across from the Dampier Peninsula. Local visitation includes Dambeemangarddee cultural customary activities, recreational boating and fishing. Other park visitors include touring recreational and super yachts from Western Australia and the eastern states.

Recreational boating and yachting are increasing. This increase is attributed to changes in technology for smaller 6-10 metre vessels, including the take-up of satellite phones, fuel efficiency and fuel availability on adjacent sites including Cockatoo Island.

While private recreational vessels frequent the park, when analysed by vessel number, visitation to the parks is dominated by boutique cruise vessels. These vessels are well suited to capitalise in this environment as they can access very remote areas and require limited infrastructure.

In 2015, 22 cruise vessels were identified operating along the Kimberley coast with most being small and accommodating less than 20 passengers (du Plessis, 2015). The number of cruise vessels has stayed steady at around 20 to 25. This steadiness in part could be due to the complexity of the area and waterways, as well as the limited infrastructure which highlights the importance of local knowledge regarding safety and visitor experience (Ellis et al. 2017).

Commercial visitation has been categorised thus for the purposes of this visitor plan:

- Visitors on boutique vessels (< 35 metres)
- Visitors on boutique vessels (> 35 metres)
- Visitors on small (expedition) cruise ships (5,000-30,000 tonnes)
- Visitors on large cruise ships (above 30,000 tonnes)

The commercial visitor experience is centred around viewing wilderness areas, wildlife viewing, tender and helicopter expeditions and cultural experiences. Interest and applications for the use of sea planes, house boats and fast boats is likely to expand. This presents a shift in the tour operations within the parks.



Horizontal Falls Seaplane Adventures



Managed wildlife interactions



Tender expeditions



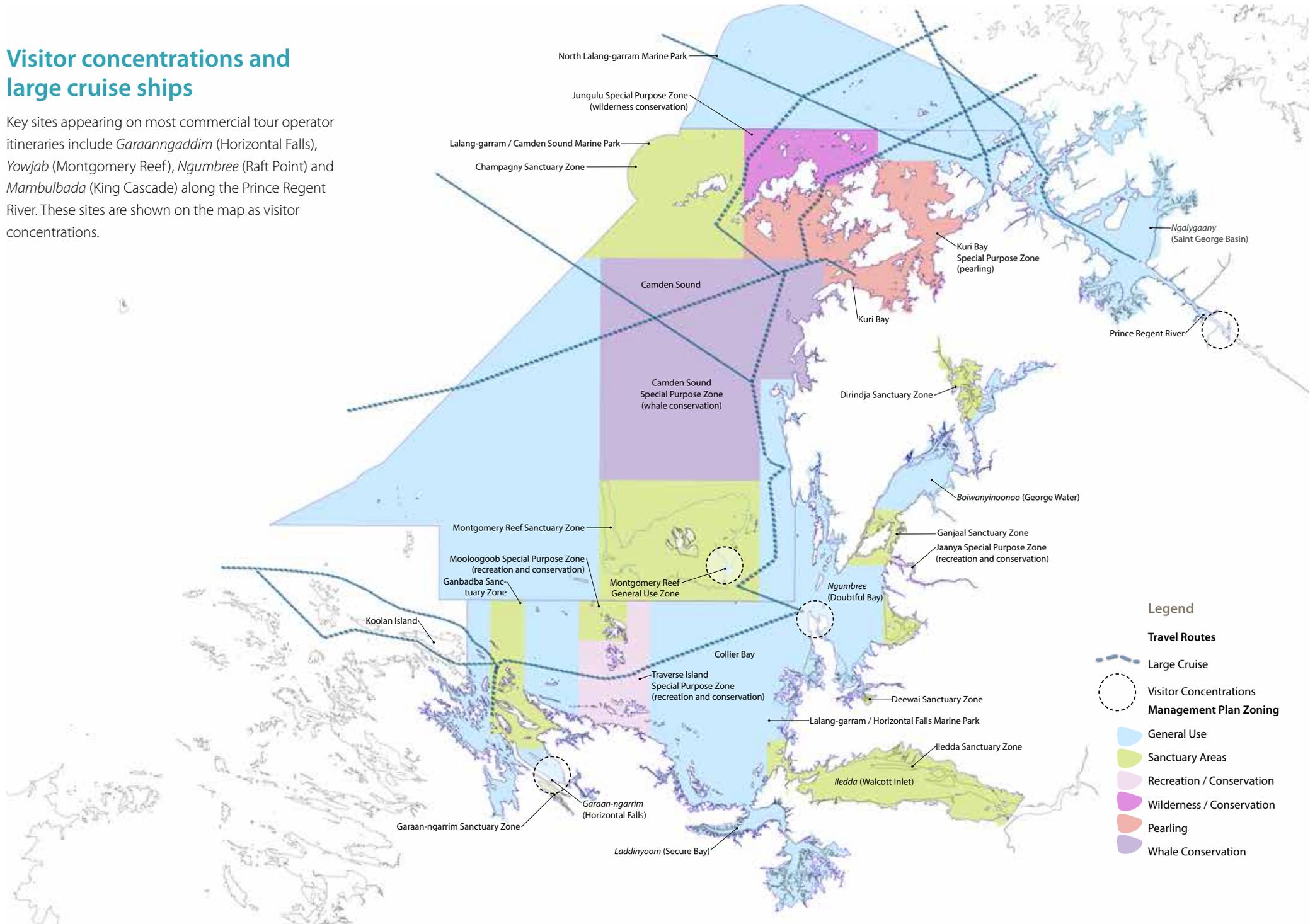
Fishing charters



Guided cultural tours

## Visitor concentrations and large cruise ships

Key sites appearing on most commercial tour operator itineraries include *Garaanngaddim* (Horizontal Falls), *Yowjab* (Montgomery Reef), *Ngumbree* (Raft Point) and *Mambulbada* (King Cascade) along the Prince Regent River. These sites are shown on the map as visitor concentrations.



In the past, boutique cruises were undertaken on small vessels run by small companies, however recent trends have seen a diversification with small and large cruise ships now exploring itineraries through the marine parks. The noticeable change in the cruise industry has been the shift in the number of passengers per trip. In 2006 there was an average of approximately 19 passengers per trip compared to 2018 with an average of approximately 40 passengers per trip. This coincides with the introduction of internationally flagged small and large cruise ships.

Small cruise ship visitation has grown significantly since 2015. This interest is driven by the unique wilderness experience and limited regulatory setting in contrast to other comparable international expedition cruise destinations (refer to Precedents diagram on page 33). This market segment is increasingly basing itself in the Kimberley region for an expanding sailing season incorporating traditional shoulder periods. This results in greater frequency of vessels and the duration of this market segment operating within the Kimberley.

Larger cruise ships are increasingly visiting the area with capacities up to 2,600 passengers. Dependent on international schedules, large cruise ships are visiting the Kimberley coast during both dry season and wet season (subject to cyclones). However, these large cruise ships have limited stops along the coastline and primarily dock in Broome to offer day trips to *Garaanngaddim* (Horizontal Falls) and anchoring at Kuri Bay (Rodger, K 2019). This visitation model has included zodiac tours to Kuri Bay Pearl Farm, Camden Harbour and Sheep Island as well as scenic flights in Mallard seaplanes. This segment has also shown interest in itineraries potentially including, St George Basin, *Ngumbree* (Raft Point), *Yowjab* (Montgomery Reef), anchorage at Wotjulum and Cockatoo Island.

## Visitor experience settings

Visitor experience settings are defined by the combination of social, physical, biological and managerial conditions that give value to a place. The concept describes a spectrum of experiences, based on these settings, which vary from 'natural' to 'high-use'. The quality of visitors' experiences is best assured by providing diversity, helping visitors find settings that offer the experiences they are seeking. The visitor experience map shown can also be interpreted as a 'heat map' articulating where marine traffic and visitation is currently concentrated and where visitation is low.

This concept is based on the Recreation Opportunity Spectrum, a widely used recreation planning framework matching user needs and expectations with different physical settings. This framework was developed in the United States of America National Park Service in the 1970's assisting park managers and planners in:

- inventorying, allocating and planning recreation resources;
- estimating the consequences of management decisions; and
- matching experiences people desire with available opportunities.

In the context of the Lalang-gaddam marine parks, the visitor experience settings have been mapped to articulate the current scenario as of 2020. The mapping has been substantiated through the targeted consultation process with the JMB, tour operators and business operators. There may be changes into the future pending commercial interest and consent from the JMB.



# Visitor experience settings



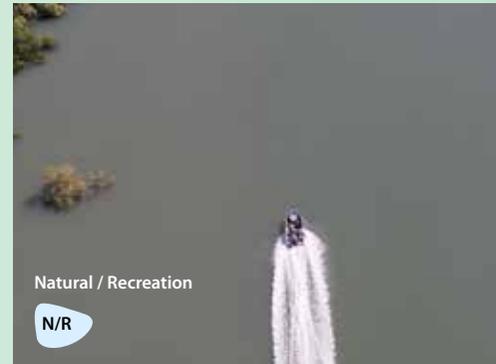
High Use

H/U



Recreation

R



Natural / Recreation

N/R



Natural

N

## High Use

- Garaanggarrim (Horizontal Falls)
- Kuri Bay
- Wilyjaru (Montgomery Channel)
  - Wijingarra Bard Bard (Freshwater Cove)
  - Mambulbada (King Cascade)

## Recreation

- Ngumbree (Raft Point)
- Red Cone
- Willimburrurr (Sampson Inlet)
- Deception Bay
- Camden Harbour
- Banjadoo (Camp Creek)
- Hiro Bay

## Natural / Recreation

- Three Ways
- Sale River Mouth
  - Munster Water
  - Sale River
- Hanover Bay

## Natural

- Boiwanyinoonoo (George Water)
- Mangrove Point
- Eagle Point
- Nimbaamba (Champagne Island)
- Goomalamala (Saint Andrew Island)
- Ngalygaany (Saint George Basin)
- Laddinyoom (Secure Bay)

### Example sites in Lalang-gaddam marine parks

## High Use

Opportunities for a focused recreation experience and discovery of a specific feature

Minimal self reliance

Low degree of challenge

Potential for high level of facilities provided

High likelihood of interaction with other users

Group activities

Frequent management presence



## Recreation



## Natural / Recreation



## Natural

Opportunities for solitude, independence, closeness to nature and tranquility

Self reliance

High degree of challenge

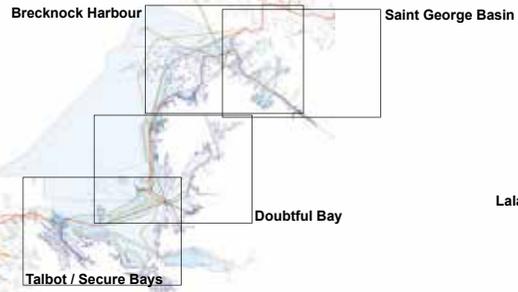
Pre visit planning required

No facilities provided

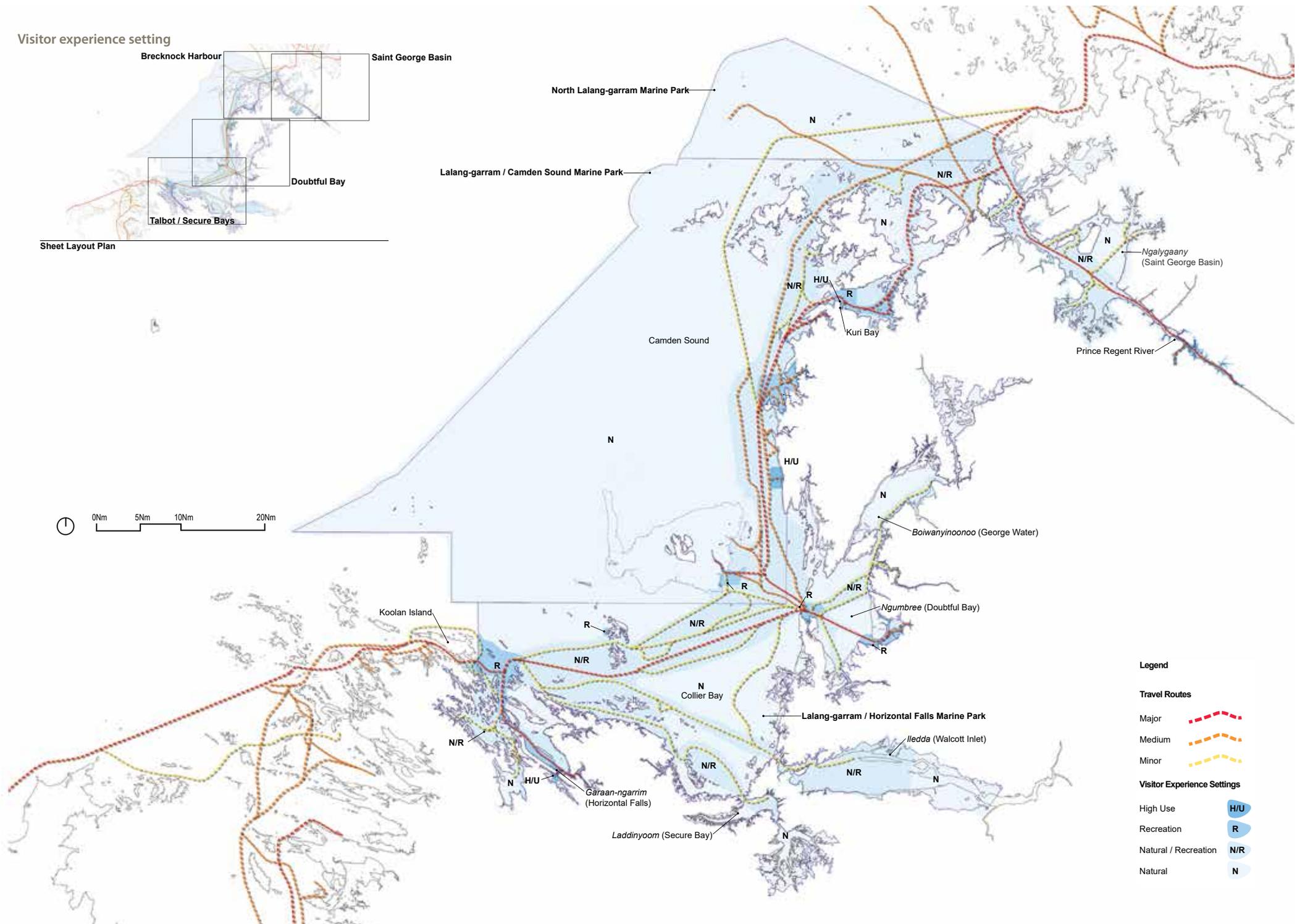
Low level of interaction with other users

Infrequent management presence

Visitor experience setting



Sheet Layout Plan



Legend

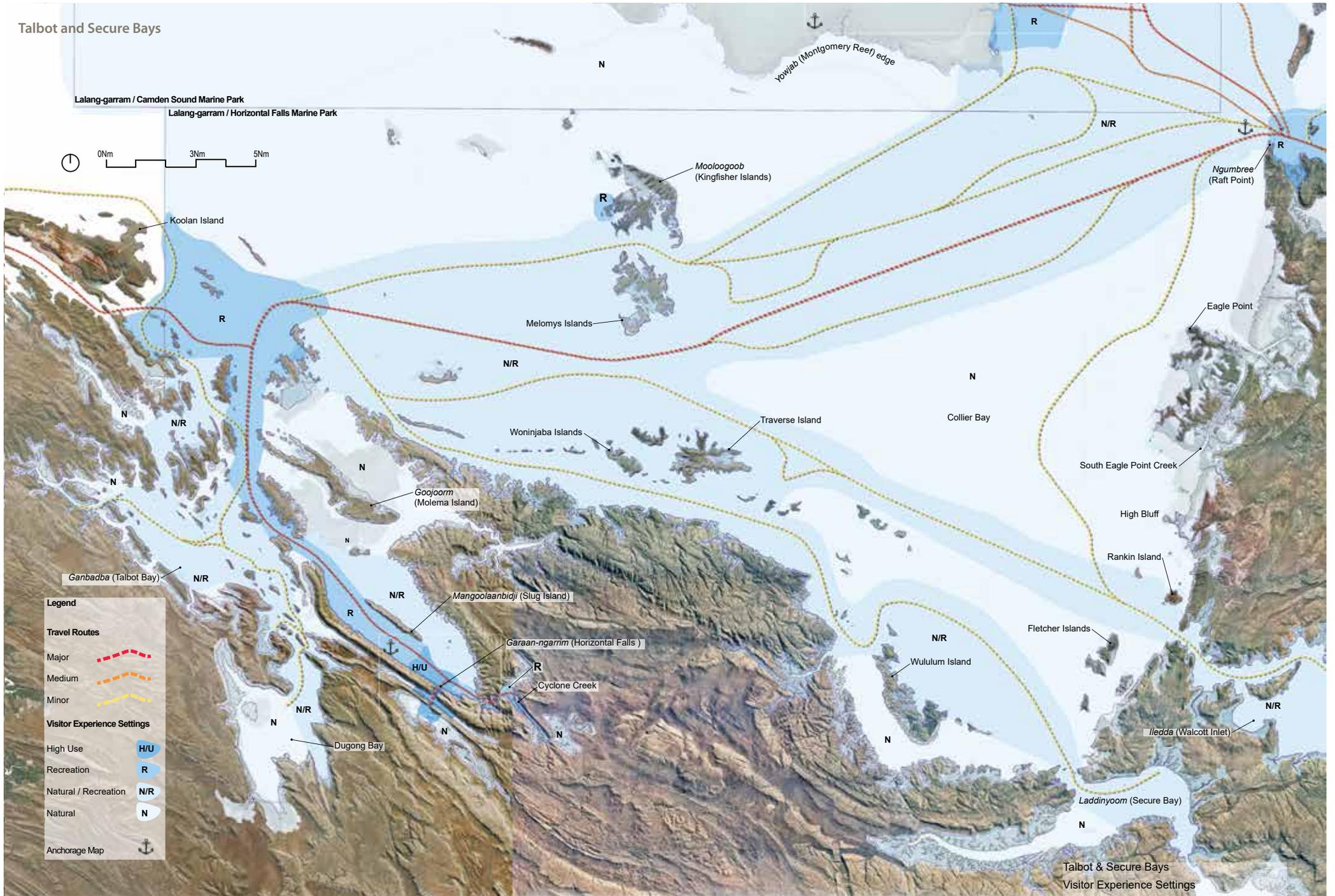
Travel Routes

- Major
- Medium
- Minor

Visitor Experience Settings

- High Use
- Recreation
- Natural / Recreation
- Natural

# Talbot and Secure Bays



# Doubtful Bay

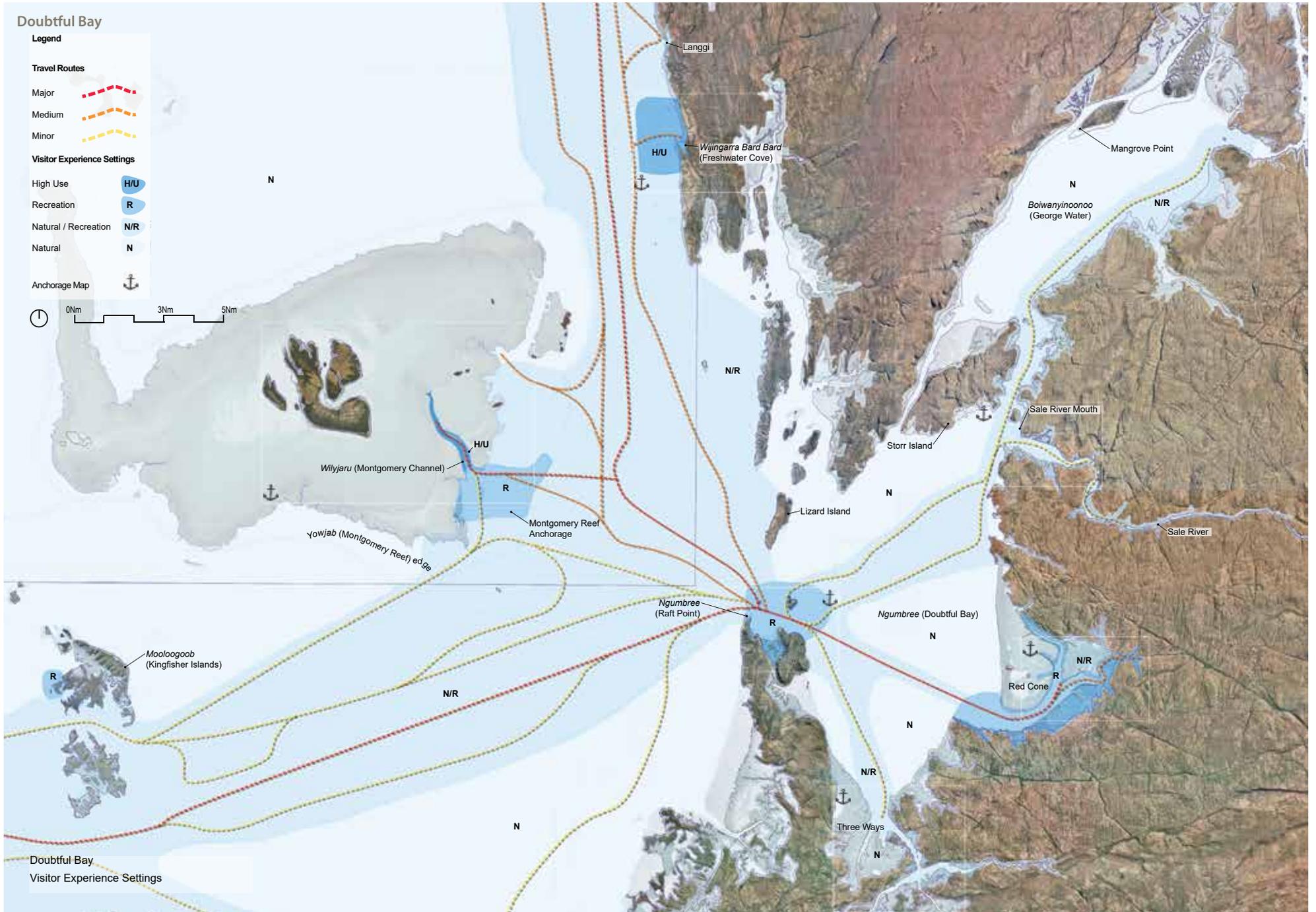
## Legend

### Travel Routes

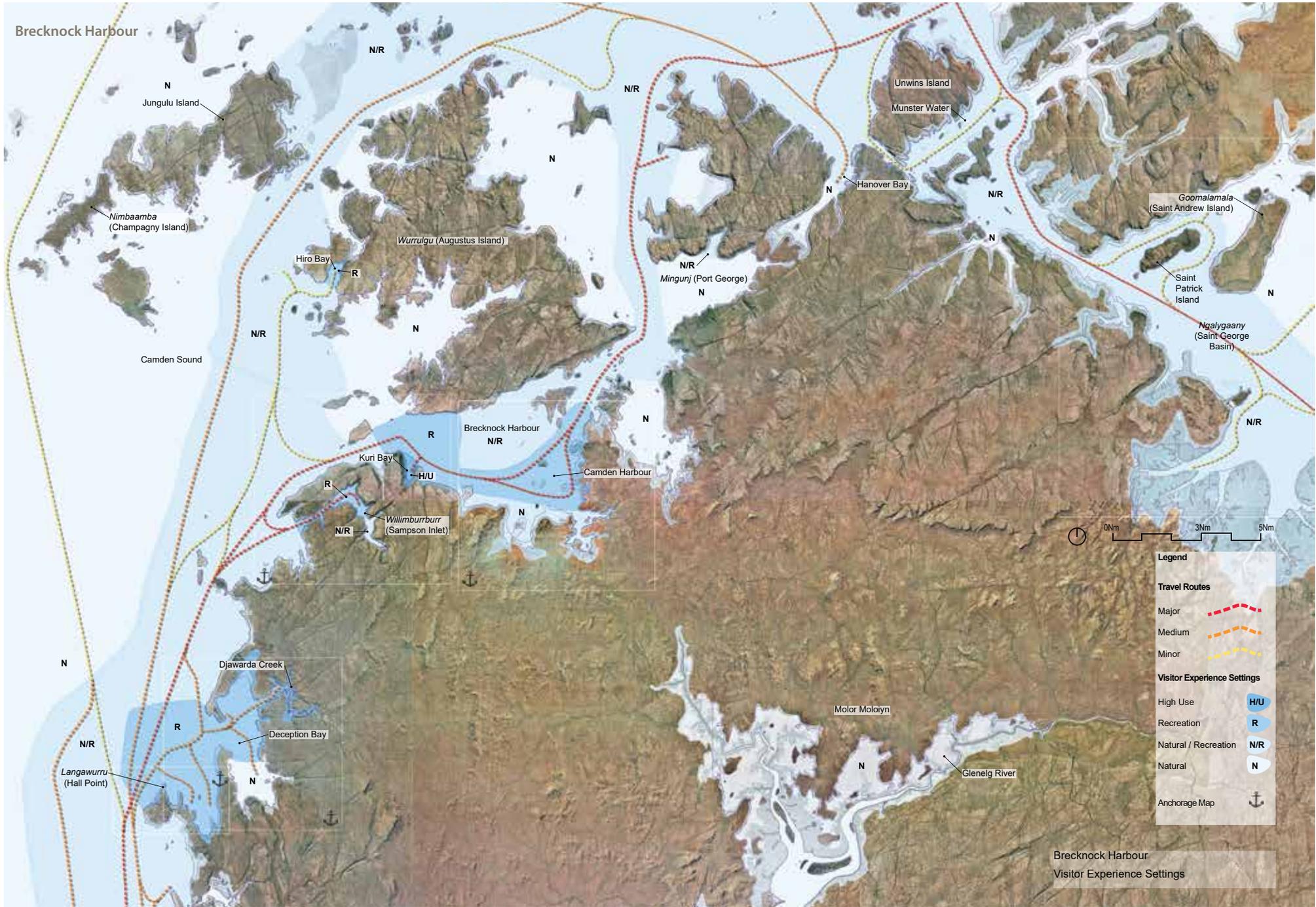
- Major
- Medium
- Minor

### Visitor Experience Settings

- High Use
- Recreation
- Natural / Recreation
- Natural
- Anchorage Map



Doubtful Bay  
Visitor Experience Settings





# Issues

## Potential environmental degradation

Key to the management of the Lalang-gaddam marine parks is mitigating environmental degradation. While extractive industries have the potential to result in significant environmental degradation, visitation to and visitor activities in the marine parks pose latent risks. For example large cruise vessels (1500 passengers) generate approximately 400,000 litres of sewage and 3,800,000 litres of grey water in a week. The International Convention for the Prevention of Pollution from Ships (MARPOL) applies to all large cruise vessels. Many of these risks can be mitigated through appropriate vessel management, maintenance and navigation as well as visitor protocols and behaviour. Key risks to the environment within the marine parks include

- Vessels running aground resulting in damage to reef and coral complexes as well as potential oil spill. There is an increased risk in Lalang-gaddam marine parks due to macro tides, unchartered waters and convoluted coastline:
- Vessel collisions with mammals and other sea life – risk of collision increases with vessel speed
- Inappropriate disposal of waste (solid and liquid) from vessels.
- Reef walking resulting in damage to reef structure and disturbance to wildlife.
- Rubbish disposal directly into marine parks and on adjacent intertidal areas.
- Bank and mangrove erosion from vessels traversing estuary systems at high speed.
- Noise pollution from large diesel engines and aircraft.

Some of these issues are addressed under DoT and international regulations including MARPOL.

## Potential cultural degradation

Both tangible and intangible cultural degradation can result from inappropriate visitor behaviour. Tangible examples may be damage and disturbance to cultural sites, artefacts and culturally important habitats including reefs. Intangible examples include accessing and activities within cultural sites where Dambeemangarddee law or other cultural protocols exist.

These examples are directly avoidable where appropriate knowledge, approval or suitable guiding is sought prior to access.

## Adverse impacts on wilderness values

Central to the visitor experience of the marine parks is their wilderness value. Attributes such as visual land and seascape, a lack of noise or crowding and environmental condition all contribute to wilderness values. While these are often subjective and difficult to quantify, the visitor experience settings provided in this visitor plan present a measurable presentation of these values. Risks to the wilderness values of the marine parks include:

- Unmanaged growth in tourism and recreational visitation.
- Change in transport preferences within the tourism industry, for example the increase in larger vessels and a growing interest in sea planes, fast boat usage and on water accommodation including house boats across the parks.
- Approval of additional extractive industries within or adjacent to the marine parks.
- Unmanaged tourism operations adjacent to the marine parks.
- Visual impacts resulting from development or managerial actions.

## Visitor risk

Similar to environmental risks many visitor risks can be mitigated through appropriate vessel management, maintenance and navigation as well as visitor protocols and behaviour. The most likely visitor risks within the marine parks include:

- Loss of control, running aground or capsizing while negotiating tidal phenomena and waters with limited charting and mapping.
- Loss of control, capsizing and man overboard while transiting through *Garaanngaddim* (Horizontal Falls) during periods of turbulent flow.
- Loss or separation and/or collision within unregulated airspace at congested sites ie. *Garaanngaddim* (Horizontal Falls).
- Injury or death resulting from estuarine (saltwater) crocodile attack. **BE CROCWISE** 
- Remoteness and isolation resulting in limited /no communication and lengthy emergency response times.

## Management presence

Given the marine parks' remote location, historically there has been an infrequent and limited management presence by Fisheries (DPIRD), DoT, Water Police and Federal Border Force. Since 2016, DBCA and DPIRD have had a regular management presence in the parks. This has included joint patrols with Dambimangari Rangers, DoT and DPIRD officers.

## Increased visitation

As mentioned in the visitor analysis section of this plan, there has been a shift in the number of passengers per trip. In 2006 there was an average of approximately 19 passengers per trip compared to 2018 with an average of approximately 40 passengers per trip. This coincides with the introduction of internationally flagged small and large cruise ships, with some being able to carry up to 2,600 passengers. There are challenges for the JMB associated with managing the scale of these vessels in the land and seascape, including the desire of these visitors to come ashore, the resultant increase in tender vessels, foot traffic, production of waste, and change in visitor engagement and appreciation of the cultural and wilderness values, especially at key sites including *Garaangaddim* (Horizontal Falls) and *Yowjab* (Montgomery Reef).

This increase in tourism is likely to be accompanied by growth in recreational visitation following completion of the sealing of Cape Leveque Road, allowing much quicker transits for small vessels across the mouth of King Sound, through Buccaneer Archipelago and into the marine parks.



Cruise ships at *Garaangaddim* (Horizontal Falls)



Yacht runs aground



Marine pollution



Vessel marine mammal collisions

# Precedents

## Great Barrier Reef Marine Park

The Great Barrier Reef Marine Park (GBRMP) incorporates the largest coral reef and island system in the world stretching 2,300kms along Australia's north eastern coastline. The Great Barrier Reef is a World Heritage Area managed by the Commonwealth and Queensland Government. Visitor activities to the GBRMP include day and overnight tours, scuba diving, reef viewing, wildlife viewing and access to land. The park is near to towns and cities and provides a high level of visitor infrastructure.

Expedition cruises in the GBRMP were developed in the 1990's and require a permit from the Australian Government authority for marine park activities. Despite interest in building the industry, the number of applications for permits to operate in the GBRMP decreased over time. Anecdotally, the complexity of the existing permit processes and operational requirements regarding island visits and anchorage may have contributed to the decline.

## Commercial vessels management

Management of the expedition cruising industry in the GBRMP has taken a more regulatory approach and is managed via 19 different zoning plans. The 'General Use Zone' is where expedition cruise vessels are primarily restricted to, meaning they are unable to access many of the biological or cultural areas which would be more appealing. To operate in the park depends upon:

- A GBRMP permit from the Australian Government authority.
- Anchorage bookings.
- A Commercial Activity Permit from Queensland Government (QPWS) for island visitation.
- Possible traditional owner approval and accommodation of guides for some areas under Joint Management agreements.
- Booking with local operators for certain activities.
- AMSA pilot booking and accommodation of pilot.

## Nunavut and Northwest Passages

Nunavut is the most north-easterly territory of Canada. Since the 1980's, marine tourism in the Arctic has been growing as tourism demand increases and accessibility is improved. This growth is primarily due to climate change as reduced ice cover has enabled greater access to more of Nunavut's waters including the Northwest Passage. It is expected that the number of visitors will continue to increase as people learn about the tourism experience. The challenge for Nunavut

is to ensure that this growth occurs in a manner that reflects the goals, interests and needs of Nunavummiut (Traditional Owners).

In recent years, cruise ships in Nunavut typically have had 100 to 200 passengers aboard, but now an itinerary has been planned for a ship that would carry 800 to 1,000 passengers with approximately 100 passengers ashore at one time. A Marine Tourism Management Plan was released in 2018 along with the Marine Tourism Regulations 2018 to manage impacts from this change in industry and to address concerns about potential impacts on the wildlife.

## Commercial vessels management

In accordance with the Marine Tourism Regulations 2018, operators are required to submit a pre-trip report to the Chief Tourism Officer eight weeks before passengers or employees disembark in Nunavut. The report should include:

- the proposed itinerary, including the municipalities where people will disembark;
- a list of the goods and services proposed to be purchased by the operator in Nunavut and their estimated total value;
- a copy of a contract between the operator and a municipal corporation;
- a list of the services proposed to be provided by the operator to Nunavummiut; and
- the expected number of passengers and employees on board the vessel.

Within 12 weeks of leaving Nunavut, operators are required to submit a post-trip report to the Chief Tourism Officer. In addition, there is a code of conduct for operators of commercial passenger vessels and another for passengers.

## Antarctic Peninsula

Human activities in Antarctica are growing rapidly, spreading out spatially, and diversifying. Until 1987, an average of fewer than 1,000 tourists visited. In 2016, approximately 38,500 people visited increasing to 50,000 visitors in 2018. Tourists want to tour Antarctica to see its pristine environment before it disappears, often referred to as last-chance tourism. There is visitation from yachts, large vessels (1,000+ passengers) and activities such as helicopter excursions, skiing and snowboarding expeditions, mountain climbing, kayaking, marathons, and scuba diving. There are 54 parties to the Antarctic Treaty of 1959 that governs activities within Antarctica. The Protocol on Environmental Protection to the Antarctic Treaty (Madrid, 1991) sets out guidelines to help protect the Antarctic environment.

## Commercial vessels management

Antarctica is unique in its management as it has developed from industry up. The International Association of Antarctic Tour Operators (IAATO) is a member organisation founded in response to

the signing of the Antarctic Environmental Protocol in early 1991 by the Antarctic Treaty nations. This protocol provided the framework for the protection of the Antarctic environment.

Many of the IAATO guidelines and operating procedures have been adopted as regulations by the Antarctic Treaty (Ellis, 2013). For example, to avoid overcrowding, there is a policy of one ship, one place, one moment. A web-based scheduler is used to coordinate the itineraries of all operators. Commercial operators are requested to provide the following information to the appropriate national authorities in advance:

- registered name and national registration and type of any vessel or aircraft to be used (including name of the captain or commander, call-sign, radio frequency, INMARSAT number);
- intended itinerary including the date of departure and places to be visited in the Antarctic Treaty area;
- activities to be undertaken and purpose;
- number and qualifications of crew and accompanying guides and expedition staff;
- estimated number of visitors to be carried;
- carrying capacity, intended use of vessel and aircraft;
- number and type of other vessels, including small boats, to be used in the Antarctic Treaty area;
- information about insurance coverage;
- details of equipment to be used, including for safety purposes, and arrangements for self-sufficiency; and
- other matters required by national laws.

## Galápagos Islands National Park and Marine Reserve

The Galápagos Archipelago is located 1000kms off the coast of Ecuador, comprising of 120 islands, of which three percent is designated for human settlements whilst the rest is protected area<sup>1</sup>. The Galápagos National Park and Marine Reserve were created in 1959 and 1986 respectively although active management by the Galapagos National Park Authority did not commence until much later. Tourism has brought great economic benefit to Ecuador, providing a practical way to support the Galápagos National Park<sup>2</sup>.

Cruise tourism commenced in 1969 with approximately 1000 people a year. This increased to approximately 18,000 during the mid-1980s. By 2001 there were 78,000 visitors with continued

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1 General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO), 2001. The Convention on the Protection of the Underwater Cultural Heritage.

2 International Galapagos Tour Operators Association (2019) Challenges Facing the Galapagos Islands. Accessed 14 February 2019, "[http://www.igtoa.org/travel\\_guide/challenges](http://www.igtoa.org/travel_guide/challenges)" [www.igtoa.org/travel\\_guide/challenges](http://www.igtoa.org/travel_guide/challenges).

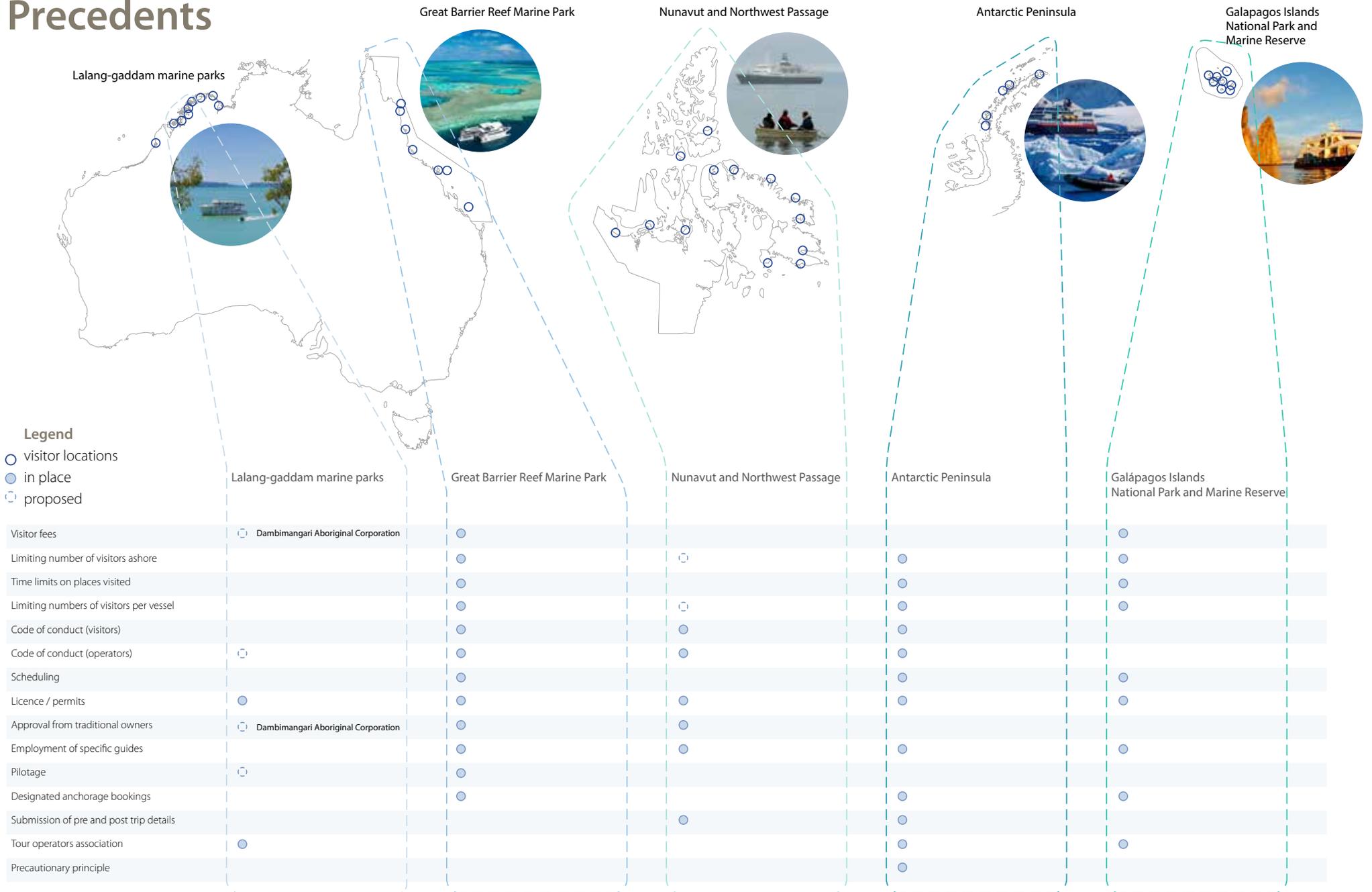
growth to 173,000 by 2008 (Mejia, 2011). With the number of tourists rising to 241,000 in 2017 authorities say they are at capacity; the maximum the islands can withstand without harming their various ecosystems. Hence, limits were set to manage tourism in terms of supply, rather than demand.

## Commercial vessels management

Management measures include:

- An entrance tax or fee is levied by the Galapagos National Park Authority set at \$100 US per person for foreign tourists. Income generated by entrance fees is of extreme importance to many stakeholders. Visits to remote island sites are limited to commercial boats only. Commercial tour vessels are required to obtain a permit. Boat operating permits come with a fixed itinerary assigned for each operator for one-year. Vessels have fixed itineraries determined by Galapagos Islands National Park authority and are scheduled prior to the season with less than one percent of land being open to tourism (Galapagos Island Conservancy, pers. comm., March 2019). Sites can only be visited for short periods of time.
- A carrying capacity strategy per visitor site choreographs the boat itineraries accordingly. This is both to protect the natural resources and to ensure a satisfactory experience for the visitor. The category depends on the site – some can withstand heavier traffic, others only a comparably few people ever get to see. Overnight stays on land are limited.
- A limit to the size of the vessels and the number of passengers. The Galapagos National Park Authority sets a limit on ships to 100 passengers and on-land tours to 16 people per group.
- All visitors must be accompanied by a trained and qualified guide and one guide could not escort more than 20 visitors.
- A price based scheme was introduced (stay longer = lower entrance fee, stay a few days = higher entrance fee). Park managers use this approach to slow down the flow and improve the visitor experience.

# Precedents



# Recommendations



Promote opportunities for Dambeemangarddee at all levels of tourism enterprise



Determine a visitor capacity or limits of acceptable change



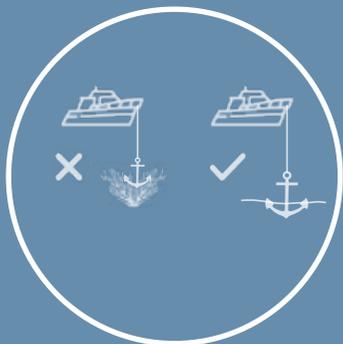
In consultation with industry, develop a booking and scheduling system



Develop a of visitor code of practice / guidelines to promote respect, safety and retain exceptional visitor experience



Implement a human use monitoring plan



Initiate anchoring restricted areas where required to manage safety, cultural and environmental values



Manage safety and world class experience at *Garaanngaddim* (Horizontal Falls)



Define shipping routes for small and large cruise ships



Implement compulsory pilotage for large cruise ships and internationally flagged ships



Explore industry management strategies to mitigate vessel / whale collisions including seasonal speed limits and night passage restrictions in special purpose zones (whale conservation)



*Garaanggaddim (Horizontal Falls)*

## Promote opportunities for Dambeemangarddee at all levels of tourism enterprise

Through native title and joint management, Dambeemangarddee people have a unique opportunity to be involved in all aspects of visitation and commercial tourism within the Lalang-gaddam marine parks. This may be in decision-making, policy and vision setting or involve living on Country and/or providing information, services and tourism products, both (physical and experiential) to visitors and commercial tour operators. DBCA will continue to encourage the tourism industry and DAC to explore and realise such opportunities.

Specifically:

- the JMB will continue to support Dambeemangarddee people in site selection and negotiating approvals processes for new tourism ventures; and
- the JMB will continue to provide opportunities for and facilitate regular communication between tour operators and Dambeemangarddee.

## Determine a visitor capacity for Lalang-gaddam marine parks

This visitor plan seeks to set limits of acceptable change to assist in maintaining an exceptional experience of wilderness, isolation, wildlife interactions, Dambeemangarddee culture and environmental values. Where these experiences or cultural and environmental values are being adversely affected by visitor numbers, modes of transport or other factors, management regimes will need to change. In the future this may include the introduction of regulated restrictions on itineraries, boat size and/or passenger numbers and speed limits.

Anchorage guidelines are referred to later in this visitor plan. These seek to address limits of acceptable change based on experiential, cultural and environmental values outlined in the Lalang-gaddam marine parks management plans by managing access at highly visited locations.

Specifically these will consider:

- anchorage guidelines being abided by commercial tour operators and recreational visitors. Access to key anchorages may be regulated into the future via gazetted restricted areas; Garaanggaddim (Horizontal Falls)
- a booking and/or scheduling system for key anchorages;
- management of cruise ship itineraries;
- introduction of restricted 'E' class licences for the purpose of maintaining visitor experience/wilderness values, conserving natural or cultural values or for visitor safety; and
- the development and application of a permit booking system for recreational visitors.

## In consultation with industry, develop a booking and scheduling system

The boutique <35m and boutique 35m+ vessel classes continue to liaise with each other to manage their itineraries and movements within the parks to minimise interaction between vessels while undertaking tours. Historically, these operators have allowed sufficient flexibility in and around key visitation sites and times of day / tides during which they visit. Similarly, operators in the small cruise segment liaise amongst each other to minimise conflicting itineraries.

While this self management approach may be in the industry and DBCA's interest in the immediate term, it is unlikely to be sustainable given increasing demand across all vessel classes. It is recommended that DBCA, in consultation with industry, develop a booking and scheduling system, starting with key visitation sites including *Garaangaddim* (Horizontal Falls), *Yowjab* (Montgomery Reef) and *Mambulbada* (King Cascade). The booking system may initially focus on small cruise and boutique vessels to accommodate both vessel classes and ensure the visitor experience is maintained.

The KMTA provides tourism operators in the region a structure to liaise and discuss common regional developments and operations within the industry. To implement a successful booking and scheduling system, the JMB will work in partnership with the KMTA. The KMTA can also play a key role in communicating with new operators entering the area and opening communications with vessels in the small cruise and large cruise segment. These communications would work in tandem with DBCA/ JMB licensing, education programs and this visitor plan.

To achieve this DBCA will:

- with assistance from the KMB and KMTA consider development of a booking and scheduling system;
- consider applying conditions to the commercial operations licence relating to the proposed booking and scheduling system; and
- maintain engagement with the KMTA and other relevant industry bodies.

## Develop a visitor code of practice / guidelines to promote respect, safety and retain exceptional visitor experience

DBCA understands that tour operators have adopted protocols (including comparing itineraries, open communication on water) to ensure they can provide an exclusive visitor experience which is central to their tourism product. In consultation with the tourism industry, DBCA will develop a visitor code of practice that serves both the tourism industry and recreational visitors.

A code of practice may incorporate but not be limited to, the following points. Many of these points form part of other recommendations outlined in this plan.

Tour operators and recreational visitors will:

- acknowledge and respect traditional owners by adhering to Dambeemangarddee visitor access protocols when going on Country;
- know the marine park management zones, permitted uses pertaining to these zones specifically Sanctuary Zones, Special Purpose Zones and abide by permitted uses;
- abide by all state and federal marine legislation and regulation (relating to fisheries, disposal of sillage) as well as international shipping protocols (MARPOL);
- abide by any areas specific "safe boating guidelines" (Boating Guide Horizontal Falls- Marine Safety), eg for Horizontal Falls, published by DoT/ DBCA;
- ensure Automated Identification System (AIS) is active particularly when steaming and anchoring overnight;
- maintain contact with other vessels and adhere to call points;
- for commercial tour operators, ensure staff are appropriately trained in all aspects of operation in the marine parks;
- adhere to any relevant anchorage guidelines and anchor in sand and muddy bottom areas only;
- work with other operators to manage itineraries to maintain quality visitor experiences; and
- report activity that appears suspicious.

## Implement restricted areas to manage safety, cultural and environmental values

Reefs in the marine parks are biodiverse and sensitive to human impacts. Reef walking not only damages sensitive coral habitat but presents a significant risk to visitors. The following reefs have been identified as at risk from visitation, particularly reef walking: *Yowjab* (Montgomery Reef), Turtle and Dugong Reefs in Talbot Bay, Kingfisher, Viney and Caesar Island reefs and Jungulu Island reefs in North Lalang-garram Marine Park. The CALM Regulations allow restricted areas to be gazetted to prohibit reef walking.

This visitor plan has identified three anchoring restricted areas within the Lalang-gaddam marine parks. These are in specific locations at *Garaangaddim* (Horizontal Falls), *Yowjab* (Montgomery Reef) and *Mambulbada* (King Cascade).

For *Garaangaddim* (Horizontal Falls) the anchoring restricted area has been determined in response to managing interactions between tenders, seaplanes and tour vessels. The anchoring restricted area provides better sight lines for approaching seaplanes and vessel traffic. The restricted area also provides a more equitable arrangement for vessels wishing to anchor with a view of the entrance to the falls.

At *Yowjab* (Montgomery Reef) the anchoring restricted area located in the *Wilyjaru* (Montgomery Channel) has been identified in response to cultural, environmental and visitor safety concerns. Cultural concerns raised by Dambeemangarddee relate to a significant Lalai creation story. Environmental concerns are disturbance to the marine life, primarily the large concentrations of foraging turtles, by large vessels and vessels moving at high speeds. Visitor safety concerns relate to the narrow nature of the channel, increasing number of vessels anchoring and resultant collision risks with both the reef edge and other vessels. It is noted that this congestion may also negatively impact visitor experience.

At *Mambulbada* (King Cascade) an anchoring restricted area encompasses the small embayment immediately in front of the falls. This is intended to manage the high and equitable access for visitors within a short tidal window at this location.

Further information can be found in the anchorage guideline sections later in this visitor plan.

In development of restricted areas:

- conditions may be specified which apply to the use of the restricted area for the purpose or for periods of time; and
- consultation with operators will be required to implement the restricted areas and to explain to visitors why they are in place.

## Manage safety and world-class experience at *Garaangaddim* (Horizontal Falls)

*Garaangaddim* (Horizontal Falls) experiences the highest visitation of any site / anchorage within the Lalang-gaddam marine parks. Set amongst the steep McLarty Ranges in *Ganbadba* (Talbot Bay), the visitor experience is centred around the potentially dangerous water phenomenon where tidal movement results in water levels varying up to 5 metres on either side of gaps in the ranges. It is highly recommended that recreational vessels and non-specialist vessels do not attempt to go through the gaps during periods of turbulent flow. Death and serious injury have occurred. In response DBCA has worked collaboratively with the DoT to conduct an aquatic use review that has resulted in the preparation of the Boating Guide Horizontal Falls- Marine Safety.

Please refer to the 'Boating Guide Horizontal Falls- Marine Safety' for vessel operating guidelines and safety equipment requirements associated with *Garaangaddim* (Horizontal Falls) (DOT (2020)).

*Ganbadba* (Talbot Bay)

The airspace above and surrounding *Garaangaddim* (Horizontal Falls) may be a candidate site for the Civil Aviation Safety Authority (CASA) to declare a special procedures notice. This is in response to the volume and diversity of air traffic resulting from commercial flights from Broome, Cape Leveque, Derby, HFSA and various charter vessels carrying helicopters. There is potential for additional air traffic from Kuri Bay and Darwin to this area.

CASA has declared such a special procedures notice (SP4 - Purnululu National Park [Bungle Bungle] Scenic Flights) for Purnululu National Park, which provides a relevant precedent for *Garaangaddim* (Horizontal Falls). In recognition of the above DBCA will initiate conversations with CASA as an action of the visitor plan.

An anchorage guideline has been prepared for *Garaanngaddim* (Horizontal Falls) including an anchorage area and a proposed anchoring restricted area to manage vessel / sea plane interactions and views from the anchorage to the falls. Further detail can be found in the anchorage guideline sections of this plan. The HFSA operations continue to be managed under a restricted 'E' class licence. A continued increase and diversification of visitation to *Garaanngaddim* (Horizontal Falls) will necessitate further detailed planning of this area to manage visitor risk, visitor experience and impacts on other values. Access to the falls will continue to be reviewed and further regulation may be applied in the future.

This visitor plan is a working document and it is expected that further work will be done in the following areas:

- Detailed spatial planning will occur to further define anchoring, moorings, restricted areas, speed limits and the movement of vessels, sea planes and other air traffic.
- DBCA will seek advice from CASA in relation to managing air traffic in the *Garaanngaddim* (Horizontal Falls) area.
- Restrictions under CALM Regulations and/or maritime legislation may be applied where required.
- The application of 'T' and 'E' Class licences and associated licence conditions.

## Implement a Human Use Monitoring Plan

Preparation of a sound, long-term Human Use Monitoring Plan including visitor satisfaction surveys is required to track visitation (numbers, locations and activity), satisfaction and subsequent benefits to the community and/ or impacts on marine park values through time. Data collected from human use monitoring will inform the JMB in future marine park management including informing periodic reviews of the marine park management plans and the visitor plan as well as commercial operator licensing.

Through the targeted consultation and marine patrols, tour operators and park managers are reporting crowding at particular sites and visitor satisfaction surveys would be beneficial to understand how visitors view their experience. Operators, through the consultation, indicated that they were open to reporting visitation data back to DBCA in the interest of informing management decisions.

While data collected through licensed operators and potential partnerships with the KMTA provide opportunities to monitor commercial use, a survey method is also required to capture recreational visitation to the marine parks. Ideally, a base line survey prior to the completion of the sealing of Cape Leveque Road should occur to ascertain what level and type of visitation growth occurs thereafter.

To determine visitation growth a Human Use Monitoring Plan, including visitor satisfaction surveys should be developed and implemented to track change over time and inform decision-making.

## Define shipping routes for small and large cruise ships

There are many navigational hazards within the Lalang-gaddam marine parks including shallow unmapped reefs, rocks, shoals and sandbars, 1 m tidal variations, significant tidal currents and concentrations of large marine mammals. In response to these hazards, many commercial tour operators across all vessel classes have chartered their own routes through the parks. Given the increase in interest and large vessel traffic through the parks, it is recommended that DBCA work with AMSA, DoT, Australian Hydrographic Office and tour operators to understand and document safe shipping routes as a matter of priority.

It is in the tour operators' best interests to avoid incidents. Many of these routes have already been documented by various companies, captains and pilots with local area expertise. The intellectual property, vetting by Australian Hydrographic Office and sharing of these routes requires further consideration.

Once documented and assessed, approved travel routes may be implemented through a code of conduct or a commercial tour operator licence condition.

To achieve this DBCA and JMB will undertake:

- spatial planning to further define navigational risk associated with shipping and designated routes;
- liaison with AMSA regarding publishing of a Marine Notice to establish an "Area to be avoided" within Kimberley marine parks, including Lalang-gaddam;
- the application of 'T' class licences and associated licence conditions; and
- restrictions under CALM Regulations and/or maritime legislation.

## Implement compulsory pilotage for large cruise ships and internationally flagged ships

Navigational hazards are found throughout the Lalang-gaddam marine parks, particularly along inshore areas and when accessing many anchorages. To mitigate against potential incidents, several small and large cruise ships (typically internationally flagged) have employed pilots to man the bridge through the Lalang-gaddam marine parks. The employment of pilots is not limited to the parks, with pilots also being engaged in adjacent areas including the North Kimberley Marine Park (non compulsory) and in Yampi Sound (compulsory DoT).

DBCA considers that pilotage is in the best interests of the operators, visitors and reduces environmental risk. It will also reduce the risk of a major incident which would jeopardise the reputation of the Kimberley cruise industry.

Given that pilotage services are already being used by the industry and that there is compulsory pilotage in adjacent waters, DBCA considers that compulsory pilotage for large cruise ships (and potentially small cruise ships) operating in the parks would be a reasonable requirement. The use of pilotage services will be assessed through licence applications. Compulsory pilotage would need to be implemented after further consultation with relevant operators and collaboration with AMSA and the Kimberley Ports Authority (KPA) to further progress this.

DBCA will, in collaboration with AMSA and the KPA, develop guidelines for pilotage through the Lalang-gaddam marine parks.



*Garaanngaddim (Horizontal Falls)*

## Explore with industry management strategies to mitigate vessel / whale collisions including seasonal speed limits and night passage restrictions in Special Purpose Zones (whale conservation)

The 168,000 hectare Special Purpose Zone (Whale Conservation) in the Lalang-garram / Camden Sound Marine Park specifies increased protection measures for whales in relation to disturbance by vessels. The Australian Government's *Biodiversity Conservation Act 2016* provides overarching protection to listed marine mammals, in this context relating to human / vessel / marine mammal interactions. Through consultation and literature review, vessel size, manoeuvrability, speed and risk of collision is now better understood. Densities of whales and the timing of these congregations during the year are well understood through numerous studies, recently synthesised in a paper published by Western Australian Marine Science Institute (Dr V Pirotta 2019).

Vessels in the >30,000 tonne categories are not able to manoeuvre to avoid impact with a whale on the surface thus resulting in a significant increase of collision at certain times of the year and in certain locations. Smaller vessels between 7.9 – 19.8 metres have been found to be responsible for more than 2/3 of humpback whale / vessel strikes in Hawaiian waters (Dr V Pirotta 2019).

There are numerous key management strategies outlined in the park management plans relating to protection of whales, with particular reference to mothers and calves that need to be considered in the management of vessels within the Whale Conservation Zone but more broadly across the marine parks. Low vessel speed is widely understood to be a key factor in the reduction of risk for collisions between vessels and whales. Vessel speed is also a consideration for the protection of dolphins, dugongs, turtles and sea snakes. Under CALM Regulation 61B, the CEO may, by notice in the Gazette, limit the speed (seasonally or permanently) of any specified class or classes of vessel in any specified area of waters on CALM land.

To achieve this DBCA and JMB will:

- define shipping routes for small & large cruise ships (refer relevant recommendations above); and
- develop seasonal management arrangements in spatially and temporally recognised areas of importance for humpback whales (Dr V Pirotta 2019).



Wuliji (Humpback whale) breaching

# Anchorage guidelines

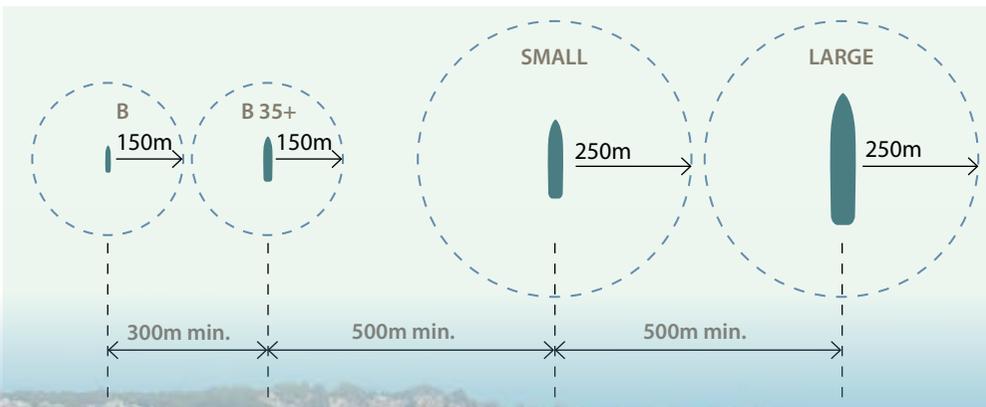
While there are numerous unpublicised anchorages and destinations across the parks, this plan focuses on the most visited locations and anchorages. Fifteen of the premier anchorages are shown in greater detail in the plan where there are existing capacity concerns or constraints. At these anchorages, a maximum vessel capacity and separation of vessels will be implemented to manage environmental impacts and maintain visitor experience. Once completed, a Code of Practice for vessels will assist in managing these anchorages. A booking and scheduling system would have benefits for specific sites and anchorages.

## Size classification of vessels

In order to manage vessels within the marine parks and particularly in anchorages the following size classes of vessels have been utilised throughout the plan.

## Separation of vessels

At all anchorages (including those not listed in this plan) a minimum separation guideline is suggested in order to maintain a level of visitor experience and safety. This guideline is illustrated below and in the following table.



Vessel type	Size
Large cruise	Above 30,000 tonnes
Small cruise	5,000-30,000 tonnes
Boutique (B35m+)	>35 metres
Boutique (B)	<35 metres

## Anchorage capacity

A maximum number of vessels (tour and recreational) is being proposed for each of the key anchorages. Capacities shown have been informed by site constraints (such as tides, current, size and separation distances), as well as consideration of Dambeemangarddee cultural sensitivity, environmental values, maintenance of visitor experience and safety.

Anchorage areas for 'large cruise' and 'small cruise' size vessels are generally located away from boutique vessels to manage the visual impact and maintain visitor experience.

Given the demand for anchorages at these key sites, once anchorages are taken, both commercial and recreational vessels will be expected to move to another location, unless doing so would present safety risks and endanger life or property. Given the scale and morphology of the coastline, alternative anchorages outside the key anchorages are available.

## Cooperation between tour operators

Tour operators are encouraged to share proposed itineraries and work together to minimise crowding at anchorages in advance of their visits.

## Adherence to anchorage guidelines

All vessels are encouraged to highlight to DBCA any contravention by other vessels from these anchorage guidelines in order to aid adherence and inform future park management decisions.

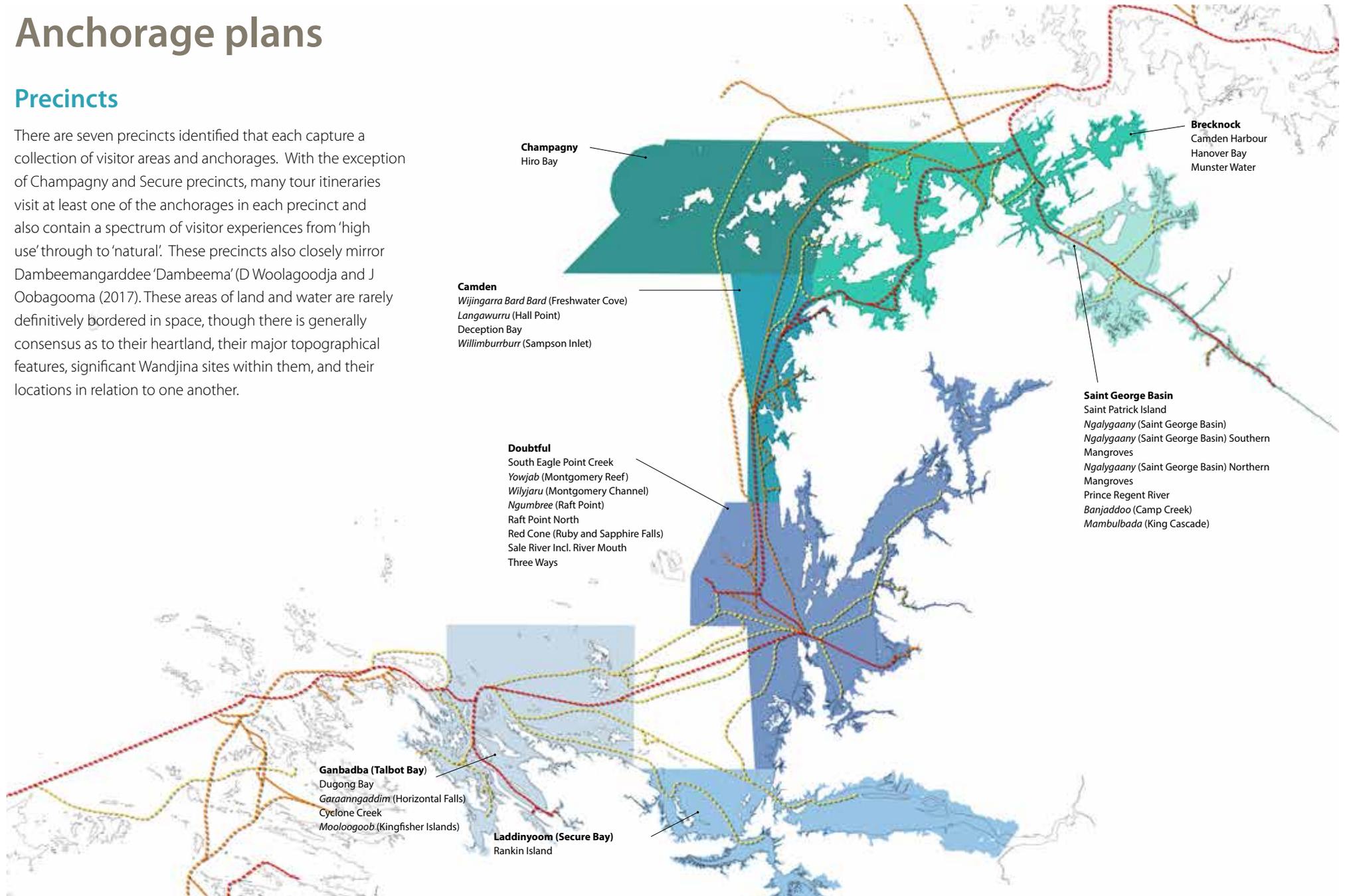
Above high water mark (marine park boundary), access arrangements are the responsibility of the DAC and the AAPA via the DPLH. Tour operators and other visitors are directed to the website [www.dambimangari.com.au/visitor-location-schedule](http://www.dambimangari.com.au/visitor-location-schedule) for further information.



# Anchorage plans

## Precincts

There are seven precincts identified that each capture a collection of visitor areas and anchorages. With the exception of Champagne and Secure precincts, many tour itineraries visit at least one of the anchorages in each precinct and also contain a spectrum of visitor experiences from 'high use' through to 'natural'. These precincts also closely mirror Dambeemangarddee 'Dambeema' (D Woolagoodja and J Oobagooma (2017). These areas of land and water are rarely definitively bordered in space, though there is generally consensus as to their heartland, their major topographical features, significant Wandjina sites within them, and their locations in relation to one another.



## Ngumbree (Raft Point)

Ngumbree (Raft Point) anchorage area is a heavily visited site due to its spectacular sea and landscape qualities, as well as its proximity as a safe anchorage to other key sites in the area such as *Yowjab* (Montgomery Reef), Red Cone, Three Ways, and *Jaanya* (the Sale River).

Though the actual point is a low-lying feature, it is surrounded by several striking landforms that present at a grand scale to approaching vessels, particularly at dawn and dusk. These include the prominent Steep Island to the north and the towering headland to the east of the point.

Mangroves nestled in between the point and the headland create a sea-level backdrop to the anchorage.

### Adjacent on country sites

Ngumbree Beach – accessible only with traditional owner guide.

Ngumbree Cave (art site) – accessible only with traditional owner guide.

### Management plan zone

General Use Area.

### Visitor experience

- Viewing the land and seascape features, particularly on approach from the east or west at dawn or dusk.
- Anchoring (passive viewing from the boat). This is a popular overnight stay location.
- Scenic flights (float plane, helicopter).
- Cultural tours and viewing of an Aboriginal rock art site (when authorised and accompanied by a traditional owner guide).
- Fishing.
- Nature appreciation.

### Tides / time of day

Higher tides are preferred for landing near the art site.

### Visitor experience setting

Recreation **R**

Ngumbree (Raft Point beach)

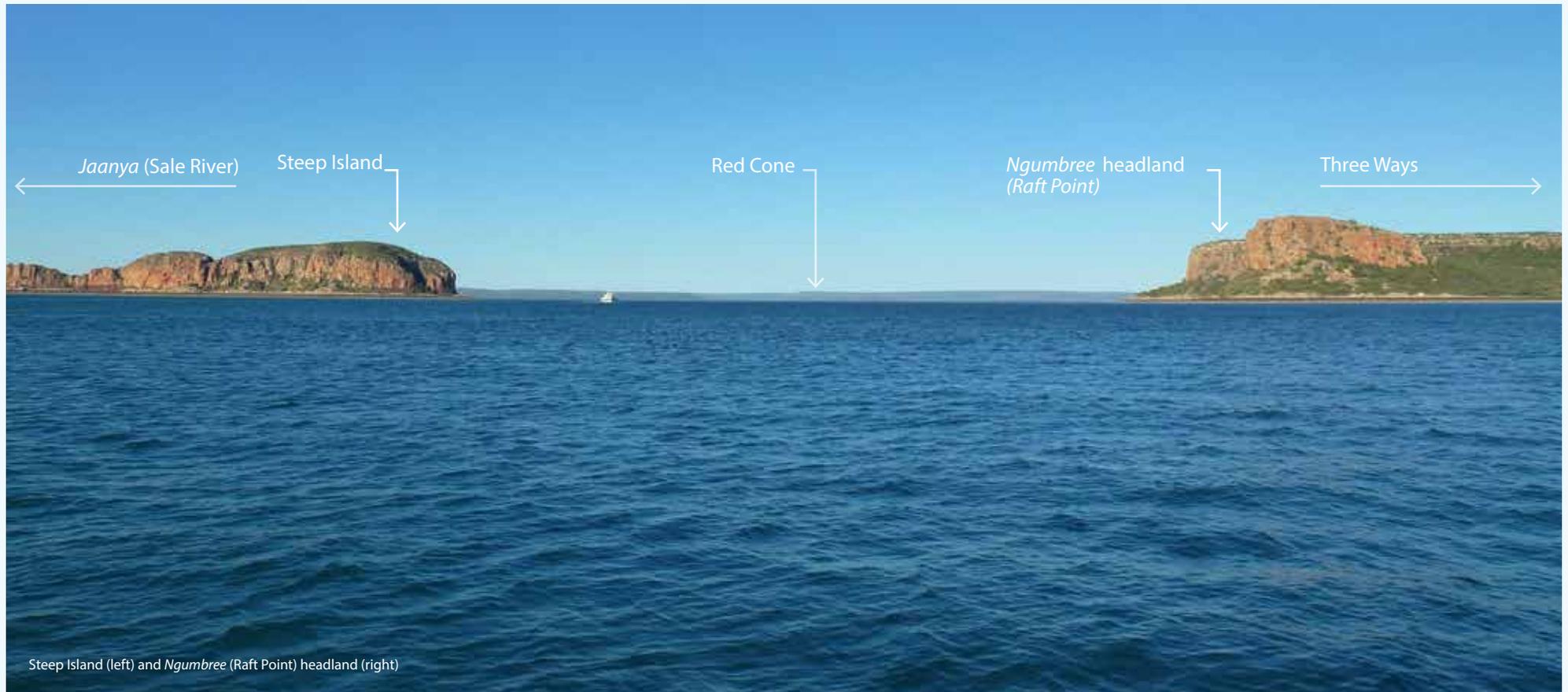


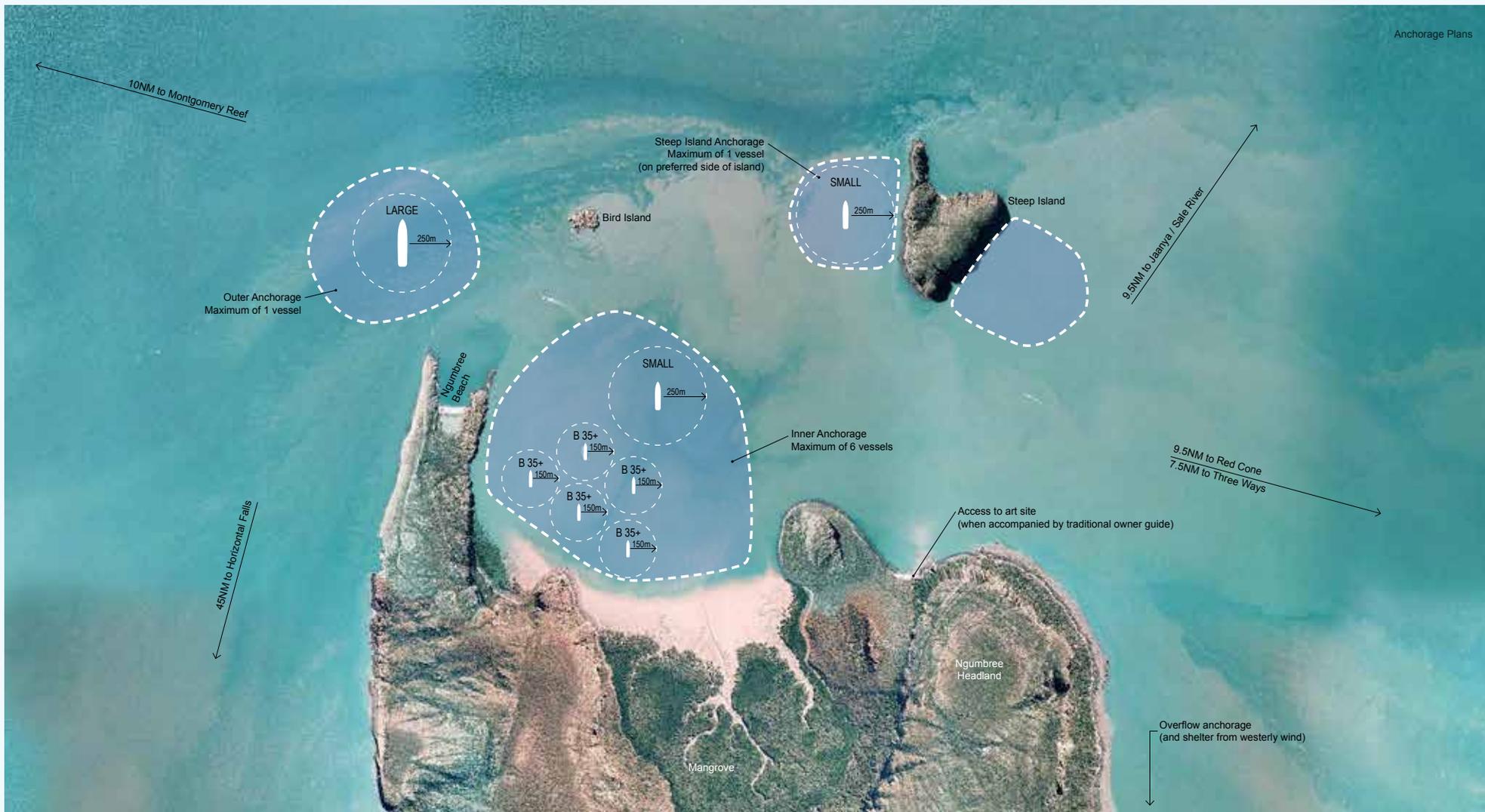
## Site issues

- Crowding in the inner anchorage area between *Ngumbree* (Raft Point) and the headland. Too many vessels in this area diminish the visitor experience through visual noise and proximity.
- Unauthorised access to the Aboriginal art site.
- Estuarine (saltwater) crocodiles are common in the Kimberley. They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal. **BE CROCWISE** 

## Management recommendations

- Inner Anchorage - Implement a size limit and maximum number of anchored vessels.
- Outer Anchorages - Designate areas including size limits and maximum numbers of anchored vessels. This includes a cruise ship anchorage.
- Work closely with Dambeemangarddee and tourism operators visiting *Ngumbree* (Raft Point) to ensure anchorage guidelines are followed and are consistent with their operations.





## Ngumbree (Raft Point)

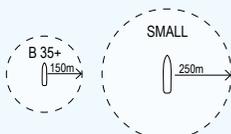
Visitor Precinct: Doubtful

### Recommended Anchorage Capacity

Maximum Vessel Size:

Inner Anchorage

**BOUTIQUE 35M+**

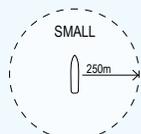


**MAXIMUM 6 VESSELS**  
(including a maximum of 1 Small Cruise vessel)

Steep Island Anchorage

**SMALL CRUISE**

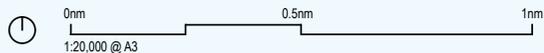
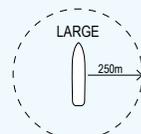
**MAXIMUM 1 VESSEL**



Outer Anchorage

**LARGE CRUISE**

**MAXIMUM 1 VESSEL**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.

## Yowjab (Montgomery Reef)

*Yowjab* (Montgomery Reef) is an 8000 year old coral reef covering approximately 300 square kilometres that can be seen from space. It represents a key visitor attraction in the Lalang-gaddam marine parks. The reef consists of relatively young sediments including calcareous coral and shell material. Flows of water accelerate as the tide drops by as much as 11 metres in a spring tide, with an agglomeration of small waterfalls producing significant noise. A variety of wildlife can be seen during the intertidal change including turtles, fish species, dolphins, dugongs marine mammals and reef dwelling birds.

Visitation is centred around a 2.5NM gutter, referred to as 'Montgomery Channel', on the south-eastern side of the reef which provides the opportunity to experience the spectacle by tender and where anchorage is convenient. Anchorage has been previously available for a limited number of smaller vessels inside the channel (the 'channel anchorage') and for larger vessels outside the channel (the 'outer anchorage').

The channel anchorage comprises the first 1.3NM of Montgomery Channel and has a reasonably consistent width of around 200 metres. The channel then narrows to allow access by tender only.

An area at the end of the Montgomery Channel, where three channels converge at its northern end, is popularly known as 'The Washing Machine' due to the more turbulent flows of water there. This is a popular part of the visitor experience.

Some visitation is now focussing on an area approximately 3.5NM north of Montgomery Channel, where a smaller channel offers a similar experience.



*Wilyjaru* (Montgomery Channel)

## Management plan zone

- Montgomery Channel - General Use Area
- Montgomery Reef - Sanctuary Zone

## Visitor experience

- Viewing the revealing reef in Montgomery Channel during tidal events from tender boats
- Scenic flights (float plane, helicopter)
- Wildlife viewing
- Fishing

## Tides / time of day

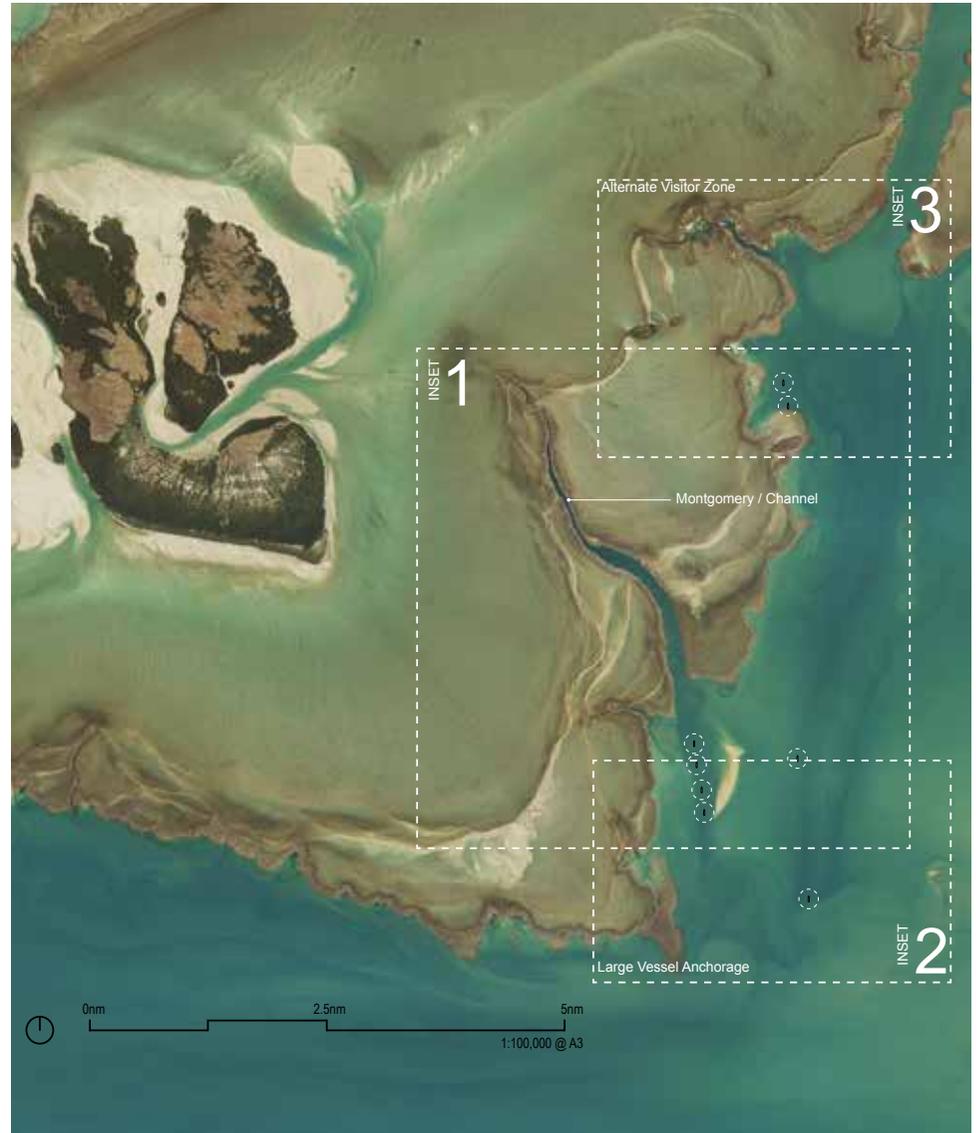
As a spectacle, the tidal movement and revealing of the reef is best viewed during outgoing spring tides or the days adjacent. During neap tides, less or none of the reef is revealed. Though the tide changes twice over a 24hr period, it is only available for viewing once during daylight hours.

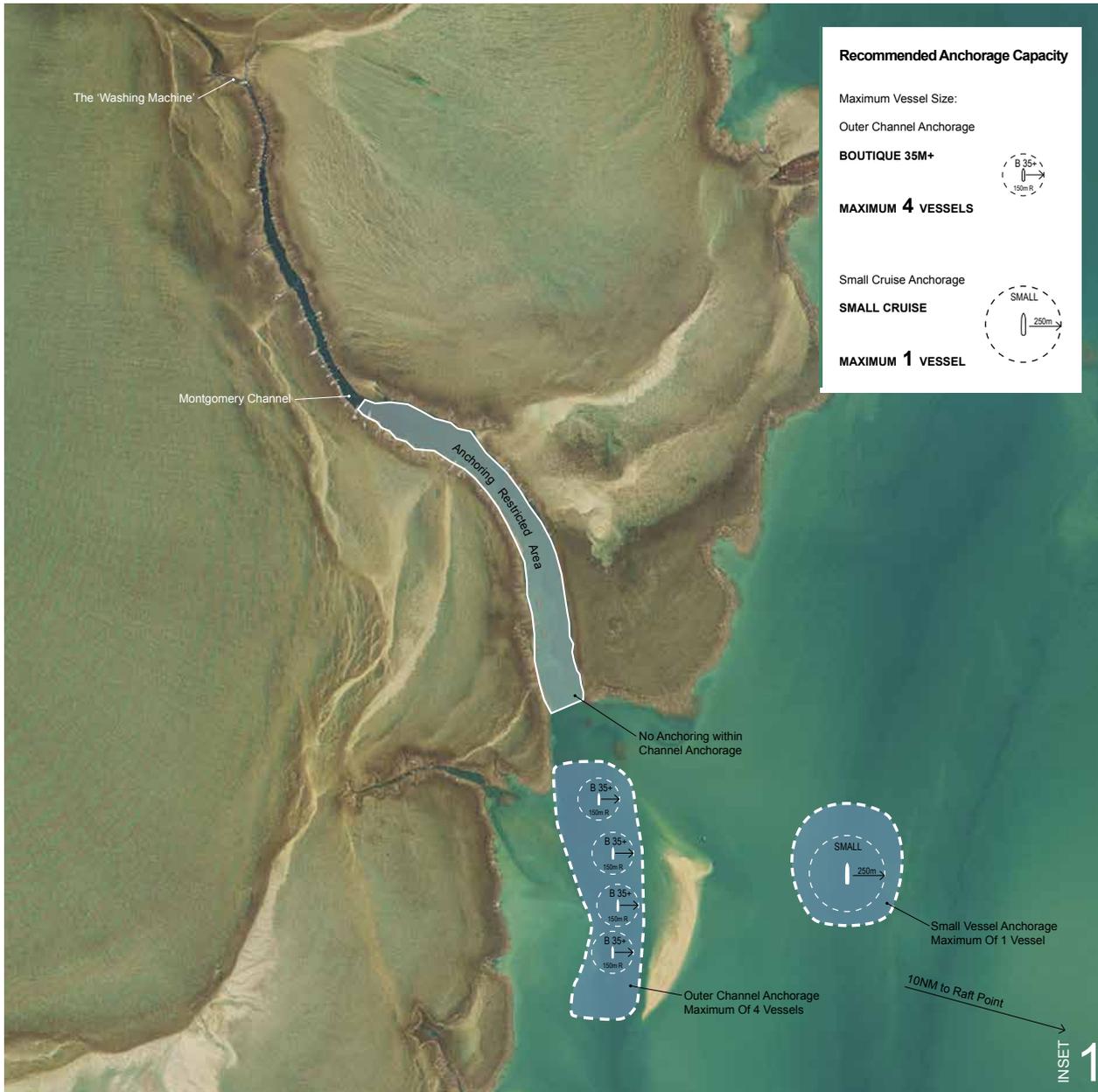
## Visitor experience setting

- Montgomery Channel- High use **H/U**
- Montgomery Reef- Natural **N**

## Site issues

- Traditional owners are opposed to vessels anchoring within the channel due to potential for damage to the reef, strong cultural beliefs and disturbance to wildlife.
- Channel anchorage can become crowded resulting in risk of collision between craft, as well as the risk of a vessel impacting the reef, and diminishes visitor experience through visual distraction and proximity.
- The northern half of Montgomery Channel can also become crowded with tenders when a large vessel or several vessels visit at the same time. As many as seven tenders have been observed in the channel at one time with aircraft overhead. There may be a desirable maximum in order to maintain visitor experience, safety and disturbance to wildlife. Crowding diminishes the visitor experience, may result in user conflict, and is also potentially dangerous due to the dynamic environment. There are also concerns over potential impacts to marine life in the area.
- Outer anchorage can provide challenging conditions for getting visitors off the main vessel onto tenders for exploring Montgomery Channel.
- Visitors walking on the reef when it is exposed.
- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.



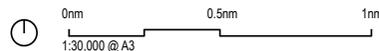


## Management recommendations

- DBCA in consultation with industry develop a booking and scheduling system.
- Channel Anchorage – Prohibit all anchorage from channel to address traditional owner concerns, maintain visitor experience and improve safety. Consider designating anchorage area for all boutique vessels south of Montgomery Channel (see anchorage map).
- Outer Channel Anchorage – Designate sizes and maximum number of anchored vessels outside the main channel.
- Small vessel anchorage – Designate separate anchorage for small cruise ships.
- Large vessel anchorage – Designate separate anchorage for large cruise ships.
- Explore feasibility for future provision of a mooring option area for larger vessels / cruise ships.
- Explore requirement for a Special Procedures Notice with CASA to manage airspace over the reef if air traffic results in environmental impact and loss of visitor experience.
- Montgomery Channel - Implement the following controls to manage visitor experience and safety:
  - 200 metre minimum stand-off distances between tenders along length of channel.
  - 8 kt speed limit.
  - Anti-clockwise designated flow of traffic to avoid conflict.
  - Maximum seven tenders within the channel and maximum three tenders per vessel if other vessels are present.
  - Maximum two tenders in the 'Washing Machine' area.
- Explore an alternative site (or sites) on the reef that provide a similar tidal viewing experience for visitors in order to reduce the impact on the channel.

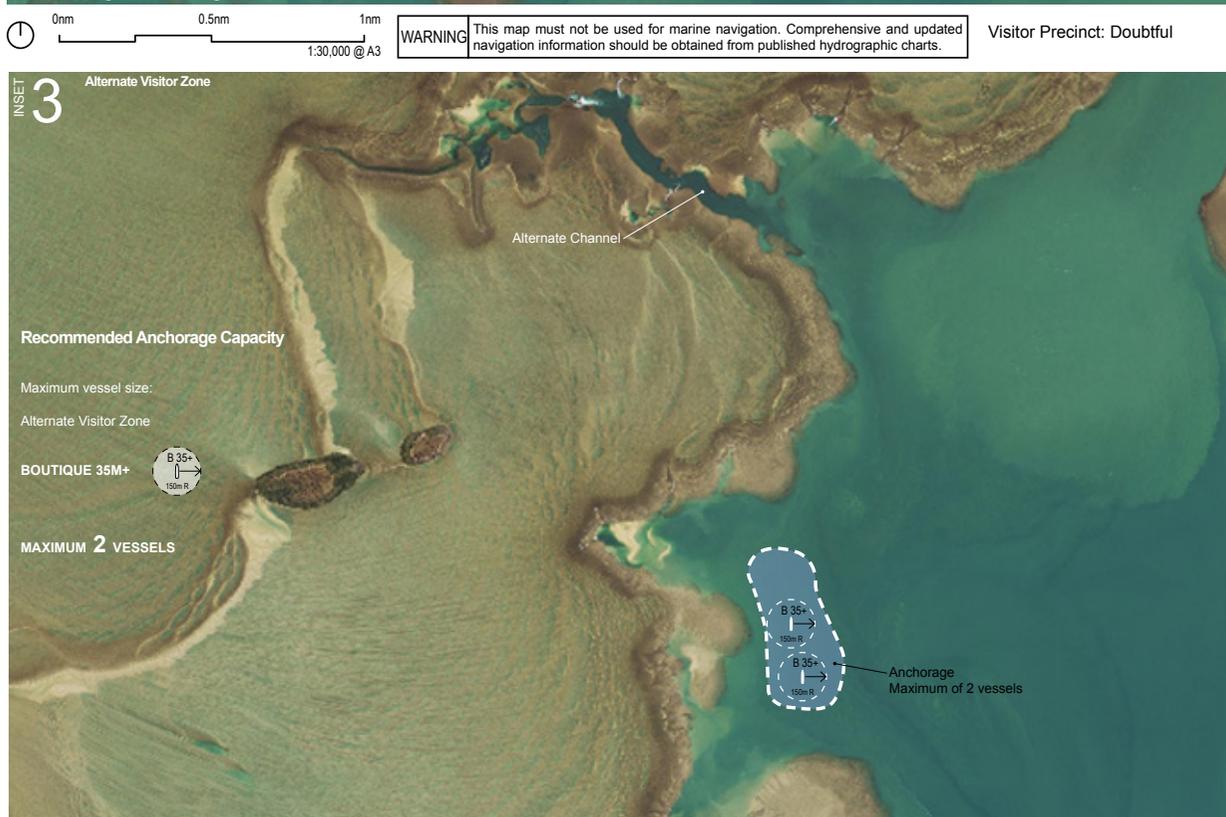
## Yowjab (Montgomery Reef)

Visitor Precinct: Doubtful



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.

# Yowjab (Montgomery Reef)



## **Garaangaddim (Horizontal Falls)**

*Garaangaddim* (Horizontal Falls) is the most visited site within the Lalang-gaddam marine parks. The 'falls' consist of two gaps between adjacent parallel gorges in the steep mounded McLarty Range. The gaps, one twenty metres wide and the other ten, allow movement of water between the parallel gorges. When the large tidal changes occur in the area, the water cannot move through the gaps fast enough and a build-up of water occurs on one side. This results in a turbulent, fast flowing surge zone as water rushes through the gaps. During spring tides, a significant change of up to five metres in water level can be seen.

Outside of the falls area is a sheltered region of Talbot Bay, a 5NM long and 2NM wide tranquil expanse of water protected by the surrounding ranges. In the centre of the bay is Slug Island, a significant vertical landform running parallel with the ranges.

The pearling operator holds a pearling lease, currently not in operation, immediately in front of the 'falls' and into Cyclone Creek. The JMB will need to work with the pearling industry to ensure continued access through and around *Garaangaddim* (Horizontal Falls) if the pearling lease was to enter operation again. A continued increase and diversification of visitation to *Garaangaddim* (Horizontal Falls) will necessitate further detailed planning of this area to manage visitor risk, visitor experience and impacts on other values. Access to the falls will continue to be reviewed and further regulation may be applied in the future.



## Management plan zone

*Garaanngaddim* (Horizontal Falls) Sanctuary Zone, south of southern falls (Poulton Creek)

Area in front of the falls is General Use Zone

## Visitor experience

- Traversing the falls during tidal events
- Anchoring (passive viewing from the boat)
- Scenic flights (float plane, helicopter)
- Fishing (outside of Sanctuary Zone)
- Cruising around Talbot Bay and into Cyclone Creek
- Nature appreciation
- Accommodation on Horizontal Falls Seaplane Adventures facility

## Tides / time of day

As a spectacle, the tidal movement through the channels is most evident during incoming or outgoing spring tides or the days adjacent to these.

## Visitor experience setting

High Use **H/U**

## Structures / facilities

Horizontal Falls Seaplane Adventures operates a semi-permanent, 100 metre long, floating pontoon system, which is moored to the east of the falls entrance at a designated site in Talbot Bay under an 'E' Class licence during the dry (tourist) season. The pontoon system has two levels and serves as a fixed base for running float planes, helicopters, and fast-boat tourist experiences through the falls. The pontoon system size can be adjusted depending on demand and is moored in the more sheltered Cyclone Creek during the cyclone season.

## Site issues

- Multi-use area with both air and water traffic (including float plane landing area). This results in increased risk of collision between air and vessels (whether in the air or on-water).
- Transiting the falls can be a dangerous activity due to the unpredictable and powerful turbulent flow of aerated water. Currently, DBCA 'T' Class Licence conditions specify a level of public liability insurance and the monitoring of specific VHF channels while in the area.
- Risk of collision due to multiple vessels transiting the falls at high speed at any one time.

- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.
- Risk of incident due to vessel type eg tiller steer and inexperienced skippers transiting the falls.
- Vessels vie for a position that allow their guests an unrestricted view of the entrance to the falls. This clustered anchoring often results in obstruction of key views.
- Crowding of activities in this area has detracted from visitor experience.
- Need for consultation with pearling lease holder in front of falls.

## Management recommendations

- DBCA in consultation with industry develop a booking and scheduling system.
- Create a 'no anchoring zone' around the entrance to the falls to reduce clustered anchoring and create space for transiting vessels in consultation with operators and pearling lease holders.
- Work with operators to separate float plane landing and vessels as much as practicable.
- Separate anchored vessels depending on size with the aim of retaining key views of the falls entrance while anchored.
- Limit the number of vessels anchoring in the zones at any one time by way of maximum (7) recommended numbers and minimum (300 metre) offsets from other vessels.
- Explore alternative landing locations for float planes that do not traverse or obscure the entrance to the falls.
- Explore requirement for a Special Procedures Notice with CASA to manage fixed-wing, float plane and helicopter traffic.
- In collaboration with DoT communicate the *Boating Guide Horizontal falls – Marine Safety*, specific to vessel operations in *Garaanngaddim* (Horizontal Falls).
- Implement a common communications system including compulsory call point upon entry to Talbot Bay and common radio channels when transiting the falls in order to prevent vessel collision (to be included in the Code of Practice).
- Detailed spatial planning to further define anchoring, moorings, restricted areas, speed limits and the movement of vessels, sea planes and other air traffic.



## Garaangaddim (Horizontal Falls)

Visitor Precinct: Talbot

### Recommended Anchorage Capacity

Maximum Vessel Size:

Falls Anchorage

**BOUTIQUE 35M+**

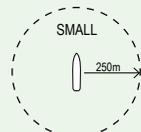
**MAXIMUM 6 VESSELS**



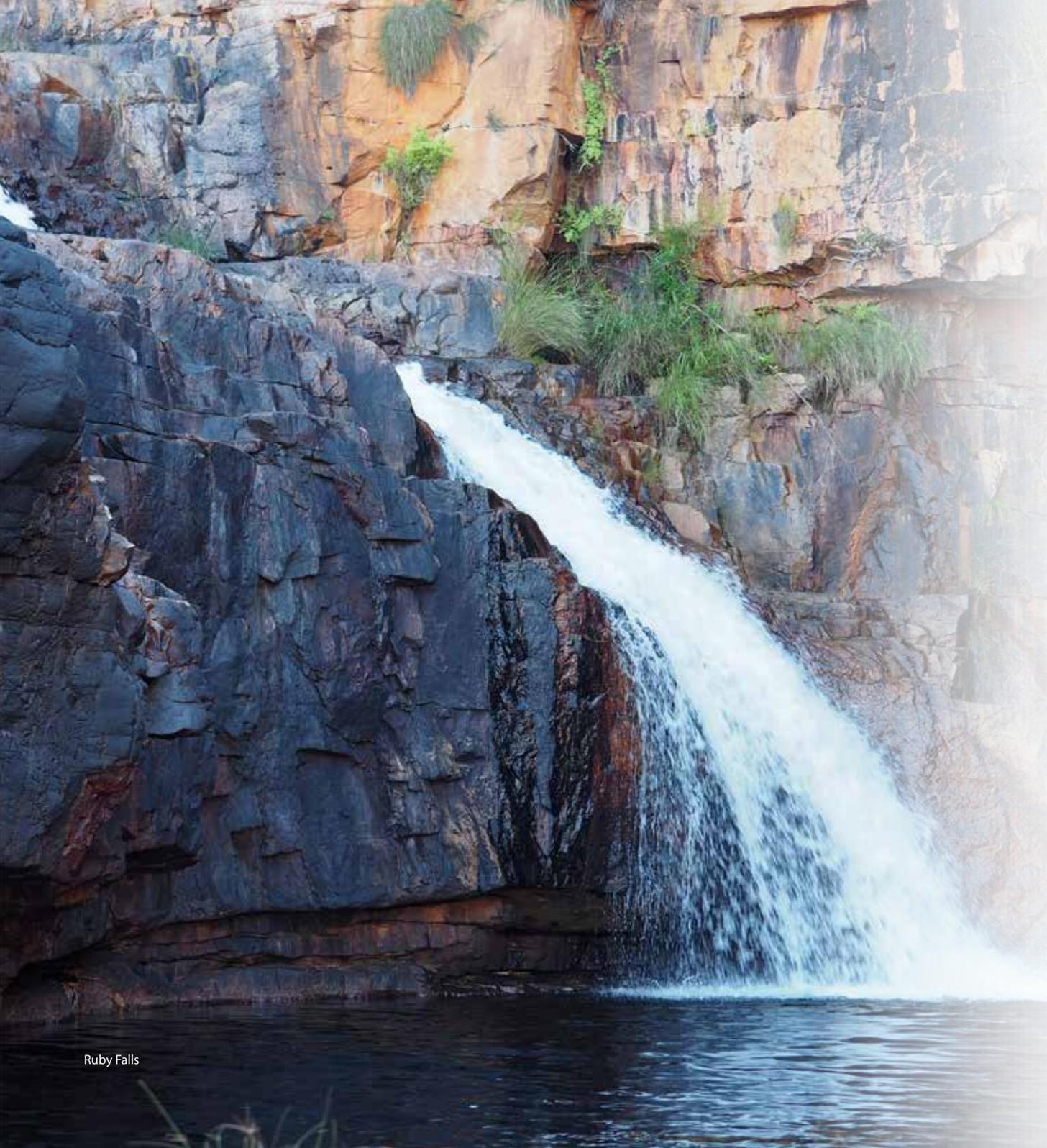
Outer Anchorage

**SMALL CRUISE**

**MAXIMUM 1 VESSEL**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.



## Red Cone

Red Cone is named after a prominent cone shaped hill that can be seen upon approach to this creek located on the south-east corner of Doubtful Bay. The creek is a wide mangrove flanked expanse of water that spreads to over 0.5NM in width from the bay before it branches into two main arms that head further north and to the east. Anchoring for smaller vessels is available through the wider portion of the creek and in the first portion of the north arm. The east arm is considered too shallow for anchoring or cruising (with the exception of tenders).

Further up the east arm is Ruby Falls which can be easily accessed by tender in appropriate tides. There are several pools throughout the falls but only the upper reaches should be considered for swimming due to estuarine (saltwater) crocodile risk. This involves a challenging climb up a rocky gully that poses some risk to visitor safety and should only be undertaken by adequately abled visitors.

Little Ruby (Sapphire) Falls is accessed through a smaller tributary just to the southern end of the east arm of the creek. These falls are smaller than Ruby Falls and caution should again be exercised due to estuarine (saltwater) crocodile risk. All visitors are required to have a Dambimangari Visitor Pass when accessing both of these sites.

Red Cone anchorage is a tranquil site that is well located for access to Three Ways, Raft Point, and the Sale River. The imminent introduction of the Ngumbree Sanctuary Zone will prohibit fishing in this area. However, there are excellent opportunities for wildlife viewing that will compensate visitors.

## Adjacent on country sites

Ruby Falls

Little Ruby (Sapphire) Falls

## Management plan zone

Ngumbree Sanctuary Zone (TBC)

## Visitor experience

- Anchoring (passive viewing from the boat).
- Scenic cruising (land and seascape).
- Nature appreciation (crocodiles and birds)
- Freshwater swimming in the falls areas.

## Tides / time of day

Low spring tides can be problematic.

## Visitor experience setting

Recreation **R**

## Site issues

- Potential for crowding at the two falls if undertaken by too many visitors at once.
- Estuarine (saltwater) crocodiles are common in the Kimberley. They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal. **BE CROCWISE** 

## Management recommendations

- Anchorage: Implement a size limit (boutique 35m+) and maximum number (3) of anchored vessels.
- Monitor Ruby and Little Ruby (Sapphire) Falls to determine levels of use and any management that needs to be undertaken to maintain visitor experience.
- Ensure estuarine (saltwater) crocodile risk is communicated to visitors - use the DBCA 'Be Crocwise' campaign.



Red Cone anchorage area and hill



## Red Cone

Visitor Precinct: Doubtful

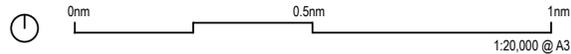
### Recommended Anchorage Capacity

Maximum vessel size:

**BOUTIQUE 35M+**



**MAXIMUM 3 VESSELS**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.

## Jaanya (Sale River)

Jaanya (Sale River) is a popular site for cruising due to its scenic quality, which improves as it narrows moving upstream with the steepening sides of the gorge providing a building sense of enclosure. Further highlights are the pockets of rainforest that have developed opportunistically in sheltered tributaries further upstream and the plentiful wildlife viewing. The freshwater springs at the upstream extent of the tidal zone are a major attraction for recreational vessels. This includes restocking with drinking water and swimming.

A cruise of the river is achievable as a day trip from Red Cone or Raft Point. There are various anchorage opportunities in the river, either for part-day use or as overnight stops. However, these are heavily dependent upon tides, with the risk of losing access or egress outside of appropriate tidal windows.

While the water is relatively deep in Doubtful Bay near the river entrance, the mouth has sand bars and rock bars that can potentially block access at low tide. This is often expressed as a turbulent zone of water upon approach to the river mouth during higher tides.

### Management plan zone

Ganjaal Sanctuary Zone at river mouth. Jaanya Special Purpose Zone (Habitat preservation and recreation and tourism activities) within the river.

### Visitor experience

- Scenic cruising - viewing the river and landscape features of the gorge (smaller vessels required in upstream areas).
- Anchoring (passive viewing from the boat). Tidally dependent.

- Fishing
- Nature appreciation (including dolphins, birds and crocodiles)

### Tides / time of day

Tidal conditions determine level of access to the river.

### Visitor experience setting

Natural / Recreation **N/R**

### Site issues

- Potential for crowding if too many vessels are cruising the river at any one time due to environmental (size) constraints.
- Potential for vessel strike and disturbance of marine fauna from fast moving vessels e.g. snubfin dolphins.
- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.

### Management recommendations

- Anchorage(s): Implement a size limit (boutique 35m+) and maximum number (total 5) of anchored vessels across the mouth, East and South anchorages.
- Consider capping number of vessels on the river at any one time (monitor use to determine).
- Speed limits may be required in the future to protect wildlife such as snubfin dolphins.

Jaanya (Sale River)



## Jaanya (Sale River)

Visitor Precinct: Doubtful

### Recommended Anchorage Capacity

Maximum vessel size:

Mouth Anchorage

**BOUTIQUE 35M+**



**MAXIMUM 3 VESSELS**

East Anchorage

**BOUTIQUE 35M+**



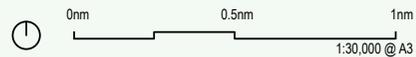
**MAXIMUM 1 VESSEL**

South Anchorage

**BOUTIQUE 35M+**



**MAXIMUM 1 VESSEL**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.

## Wijingarra Bard Bard (Freshwater Cove)

*Wijingarra Bard Bard* (Freshwater Cove) is characterised by gentle sloping terrain, continual fresh water and views out over Camden Sound. Boat access (tenders and small craft) is suitable due to a wide sandy beach and is possible in most tides. This site has been a popular stop for the cruise industry for cultural tourism, including 'Welcome to Country', visiting art sites, and purchasing contemporary Dambeemangarddee artwork. Previously, Wandjina Tours operated from here, establishing a series of structures and facilities adjacent to the beach. Wandjina Tours ceased operation in 2016, with Wijingarra Tours commencing operation in 2018 and offering similar experiences including tours to *Ngumbree* (Raft Point), 17NM south and Langgi, 3.5NM north.

For visitor planning, consideration must be given to the large numbers of whales that frequent the approach to *Wijingarra Bard Bard* (Freshwater Cove) and the requirements of the Special Purpose Zone (Whale Conservation) as outlined in the management plan. The management of whale interactions is critical to maintain marine park and cultural values.

### Adjacent on-country sites

*Wijingarra Bard Bard* (Freshwater Cove) is only accessible when accompanied by a traditional owner guide.

### Management plan zone

General Use

### Visitor experience

- Cultural tours and viewing of an Aboriginal rock art site (when authorised and accompanied by a traditional owner guide). Currently this is operated by Wijingarra Tours.
- Nature appreciation (including whale watching).

### Tides / time of day

Most tides are suitable, with tours typically occurring before noon.

### Visitor experience setting

High Use **H/U**

### Site issues

- *Wijingarra Bard Bard* (Freshwater Cove) has limited capacity for large visitor numbers.
- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.

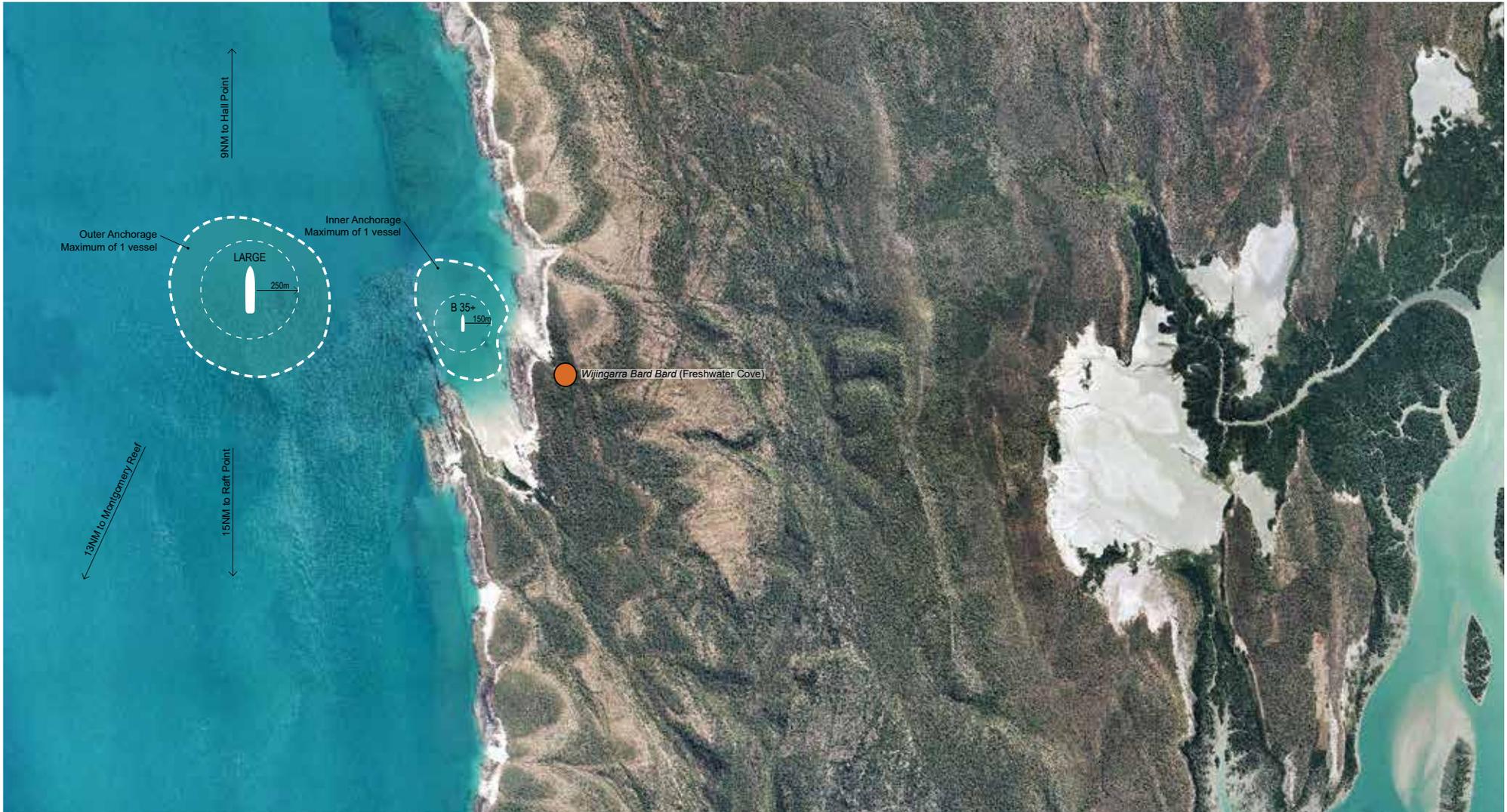
### Management recommendations

- Define anchorages for cruise and smaller vessels.
- Ensure accurate hydrographic survey of anchorage for safe passage and anchorage.
- In consultation with Australian Hydrographic Office and local pilots, determine appropriate approach routes and speed limits for cruise ships consistent with Special Purpose Zone (whale conservation) requirements.



*Wijingarra Bard Bard* (Freshwater Cove)





## Wijingarra Bard Bard (Freshwater Cove)

Visitor Precinct: Camden

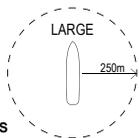
### Recommended Anchorage Capacity

Maximum Vessel Size:

Outer Anchorage

LARGE CRUISE

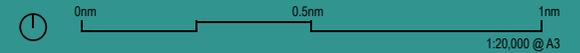
MAXIMUM 1 VESSELS



Inner Anchorage

BOUTIQUE 35M+

MAXIMUM 1 VESSEL



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.

## Three Ways

Describing a creek system at the southern end of Doubtful Bay that has three distinct arms, Three Ways is a popular location for fishing and crabbing. Vessels often anchor in Doubtful Bay at the mouth of the creek and access Three Ways in tenders due to the presence of submerged rocks in the channel.

The key recreational activity in Three Ways is fishing and crabbing. The creek system also has worth as a wildlife viewing and scenic cruising location. The middle arm of Three Ways is a dense mangrove habitat which is to be protected from fishing by the Deewai Sanctuary Zone<sup>3</sup> (refer to page 23).

### Management plan zone

Deewai Sanctuary Zone covering middle arm of the creek. The remainder is General Use area.

### Visitor experience

- Fishing and crabbing.
- Scenic cruising (landscape and wildlife).

### Tides / time of day

Tidal conditions determine level of access to the river.

### Visitor experience setting

Natural / Recreation **N/R**

### Site issues

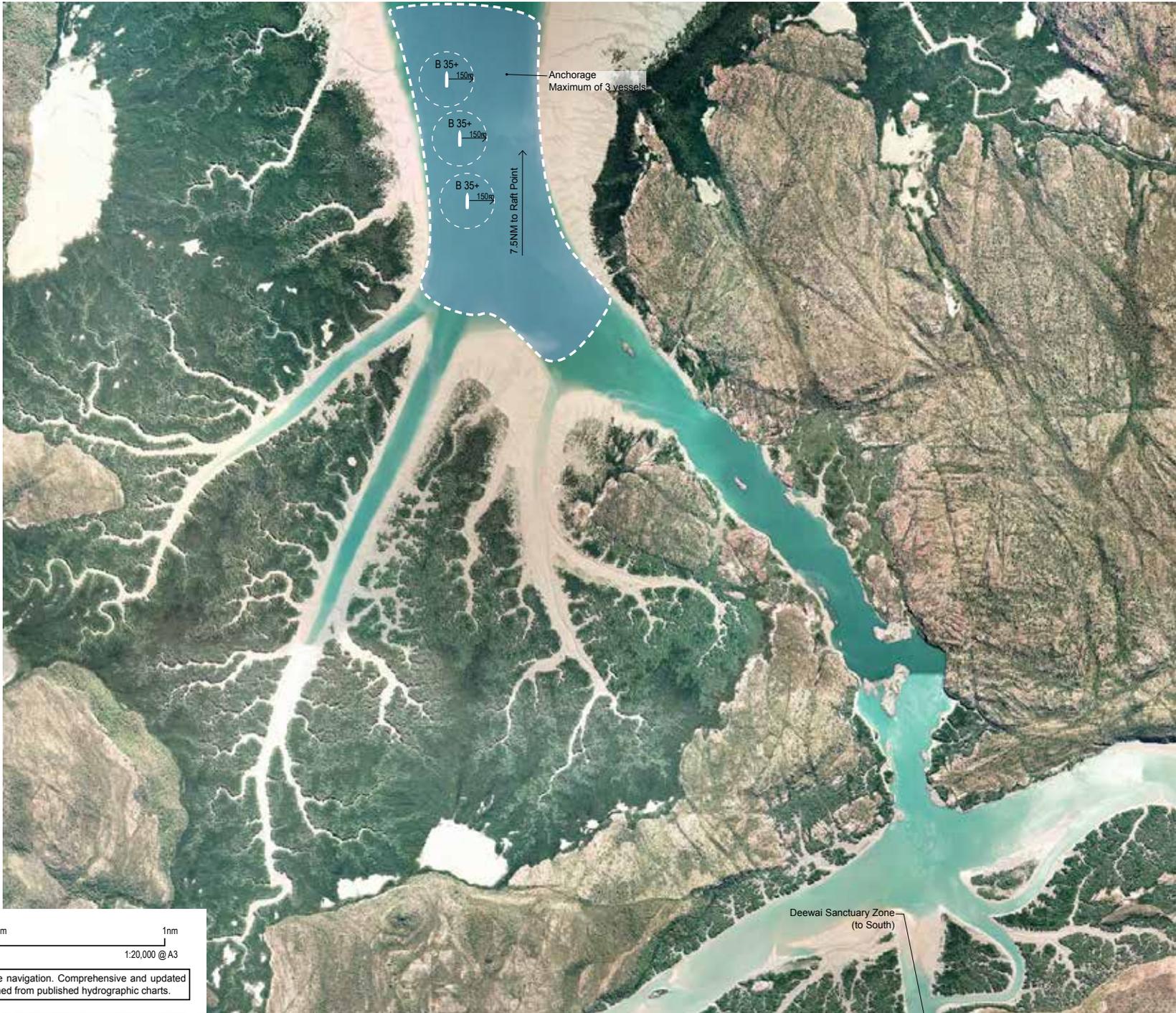
- Potential for crowding if too many vessels are cruising or fishing the river at any one time.
- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.

### Management recommendations

- Anchorage: Implement a size limit (boutique 35m+) and maximum number (3) of anchored vessels.

Aerial image of Three Ways





# Three Ways

Visitor Precinct: Doubtful  
**Recommended Anchorage Capacity**

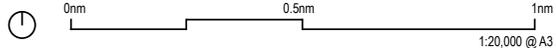
Maximum Vessel Size:

Anchorage

**BOUTIQUE 35M+**



**MAXIMUM 3 VESSELS**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.



Langawurru / Hall Point

## Langawurru (Hall Point)

Langawurru (Hall Point), approximately 6NM north of Langii and just south of Deception Bay, is a northern projection that forms a north facing sheltered bay and beach with the adjacent landform. The area around the point is important for humpback whales and is close to the Camden Sound Special Purpose Zone for whale conservation. Like Deception Bay it is considered a good stopping point for vessels traversing the coastline between Doubtful Bay and *Ngalygaany* (St George Basin).

### Management plan zone

General Use Area

### Visitor experience

- Viewing the land and seascape.
- Anchoring (passive viewing from the boat).
- Fishing
- Nature appreciation (including whales).

### Tides / time of day

Generally accessible.

### Visitor experience setting

Recreation **R**

### Site issues

- Estuarine (saltwater) crocodiles are common in the Kimberley. They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal. **BE CROCWISE** 

### Management recommendations

- Anchorage: Implement a size limit (Small Cruise) and maximum number (3) of anchored vessels.
- Monitor area for any issues that may develop.

Langawurru (Hall Point)



## Langawurru (Hall Point)

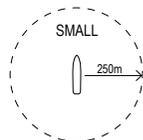
Visitor Precinct: Camden  
**Recommended Anchorage Capacity**

Maximum Vessel Size:

Hall Point Anchorage

**SMALL CRUISE**

**MAXIMUM 2 VESSELS**



**BOUTIQUE 35M+**



Alternate Anchorage

**BOUTIQUE 35M+**

**MAXIMUM 1 VESSEL**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.

## Deception Bay

Deception Bay is wide and relatively shallow, with various anchoring opportunities for smaller vessels (including cruising yachts). The bay has several anchorages that provide for a large variety of weather conditions with few risks. It is considered a good stopping point for vessels looking for an option between the Doubtful Bay / *Yowjab* (Montgomery Reef) areas and further north to sites such as Kuri Bay and *Ngalygaany* (St George Basin). Within the bay there are opportunities to access a number of gorges by tender for siteseeing and fishing.

Deception Bay is noted as an important habitat zone for Australian snubfin dolphins and provides opportunities for viewing whales.

### Adjacent on Country sites

North Djawarda

Deception Creek

### Management plan zone

Camden Sound Special Purpose Zone (whale conservation)

### Visitor experience

- Viewing the land and seascape.
- Anchoring (passive viewing from the boat).
- Fishing (at anchor, no trawling).
- Nature appreciation (including whales).

### Tides / time of day

Generally accessible.

### Visitor experience setting

Recreation **R**

### Site issues

- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.

### Management recommendations

- Anchorage/s: Implement a size limit (boutique 35m+) and maximum number (4) of anchored vessels within designated anchorages.
- Monitor area for any issues that may develop.

Deception Bay



# Deception Bay

Visitor Precinct: Camden

## Recommended Anchorage Capacity

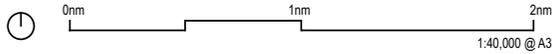
Maximum Vessel Size:

Deception Bay Anchorage

**BOUTIQUE 35M+**



**MAXIMUM 4 VESSELS**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.



## Willimburrurr (Sampson Inlet)

Willimburrurr (Sampson Inlet) is accessed via a narrow 200m wide channel and provides a sheltered anchorage within the surrounding cliff topography. The anchorage is approximately 0.5NM<sup>2</sup> with fresh water accessible at the southern reaches of the inlet. Marine traffic data indicates this is a particularly popular anchorage with up to four vessels anchored overnight. This is supported by DBCA patrol observations.

Provisioning of vessels via sea plane also occurs at Willimburrurr (Sampson Inlet). The pearling operator and other vessels have used this location for a cyclone season refuge.

### Adjacent on country sites

Sampson Inlet

### Management plan zone

Camden Sound Special Purpose Zone (whale conservation)

### Visitor experience

- Overnight anchoring in small protected anchorage.
- Viewing the land and seascape.

### Tides / time of day

Access to anchorage is not dependent on tides.

### Visitor experience setting

Recreation **R**

### Structures/facilities

Some pearling moorings and pontoons.

### Site issues

- Potential for crowding given relatively small anchorage.
- Pearling infrastructure present in relatively small anchorage.

### Management recommendations

- Anchorage: Implement a size limit (boutique 35m+) and maximum number (4) of anchored vessels.
- Review requirement for pearling infrastructure in this inlet with pearling operator.

## Kuri Bay

Kuri Bay is a sheltered water body amidst steep terrain. The pearler's operation includes a series of buildings and related infrastructure that service an active pearl farming area. The pearling lease operator also have several pearling longlines arranged through Brecknock Harbour.

The pearling operator currently provide tours of the pearling operation focussing on the Japanese built 1950's pearling base building. Several large cruise ships visit each year to allow their guests to undertake the tour and this is expected to continue. In 2019 the pearling operator advertised and carried out a number of scenic tours to and from Kuri Bay via float plane.

A small charter fishing operation operates day fishing charters out of Kuri Bay using the land-based facility for guest accommodation.

### Management plan zone

Special Purpose Zone (Pearling)

### Visitor experience

- Day stop in the bay with tours of the pearling operation.
- Scenic flights using float planes.
- Charter fishing from small vessels.

### Tides / time of day

Generally accessible. Strong tides flow in the channel.

### Visitor experience setting

High Use **H/U**

### Site issues

- Limited capacity for large visitor numbers.
- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.

### Management recommendations

- Implement designated anchorage for large cruise vessels in discussion with pearling operator.
- The JMB to build relationship with pearling operator to better understand existing tourism operations and future tourism aspirations.



*Willimburrurr (Sampson Inlet)*



Kuri Bay

## Willimburrburr (Sampson Inlet)

Visitor Precinct: Camden

### Recommended Anchorage Capacity

Maximum Vessel Size:

Sampson Inlet Anchorage

BOUTIQUE 35M+

MAXIMUM 4 VESSELS



NOTE: Sampson Inlet is a recognised safe haven in times of threatening weather. During these times recommended anchorage capacity does not apply.

## Kuri Bay

Visitor Precinct: Brecknock

### Recommended Anchorage Capacity

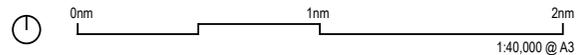
Maximum Vessel Size:

Kuri Bay Anchorage

LARGE CRUISE



MAXIMUM 1 VESSEL



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.



## Camden Harbour

Camden Harbour is the site of an ill-fated early settlement that lasted for just two years in 1864 and 1865. Ruins and graves are the only remnants of this settlement and provide a point of interest for visitors. Nearby Sheep Island is a popular location for cruise tender visits given the sandy beach landing and historic cemetery under a conspicuous boab.

The site is typically a day trip destination for vessels enroute through Brecknock Harbour or from Kuri Bay. The scenic qualities of the area are pronounced around dawn and dusk.

### Adjacent on-country sites

Sheep Island Cemetery

Camden Harbour Settlement (1864-1865)

### Management plan zone

Kuri Bay Special Purpose Zone (Pearling).

### Visitor experience

- Anchoring (passive viewing from the boat).
- Historical tours - viewing historic settlement ruins and graves.
- Fishing.
- Scenic cruising and nature appreciation (including whales and other marine animals).

### Tides / time of day

Generally accessible.

### Visitor experience setting

Recreation **R**

### Structures / facilities

Pearling infrastructure (buoys, pontoons, etc.) associated with Kuri Bay pearling lease.

### Site issues

- Potential for collision with pearling infrastructure although most of this is north and west of the visitor sites. (Note that radar reflecting buoys mark some pearling infrastructure on the south side of Augustus Island).
- Potential for disturbance to historic ruins.
- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.

### Management recommendations

- Anchorage/s: Implement a size limit (boutique 35m+) and maximum number (3) of anchored vessels.
- Monitor any reported collisions with pearling infrastructure.
- Monitor, with DAC, any effects on the graves or ruins around this location.



Camden Harbour

# Camden Harbour

Visitor Precinct: Brecknock

## Recommended Anchorage Capacity

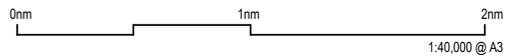
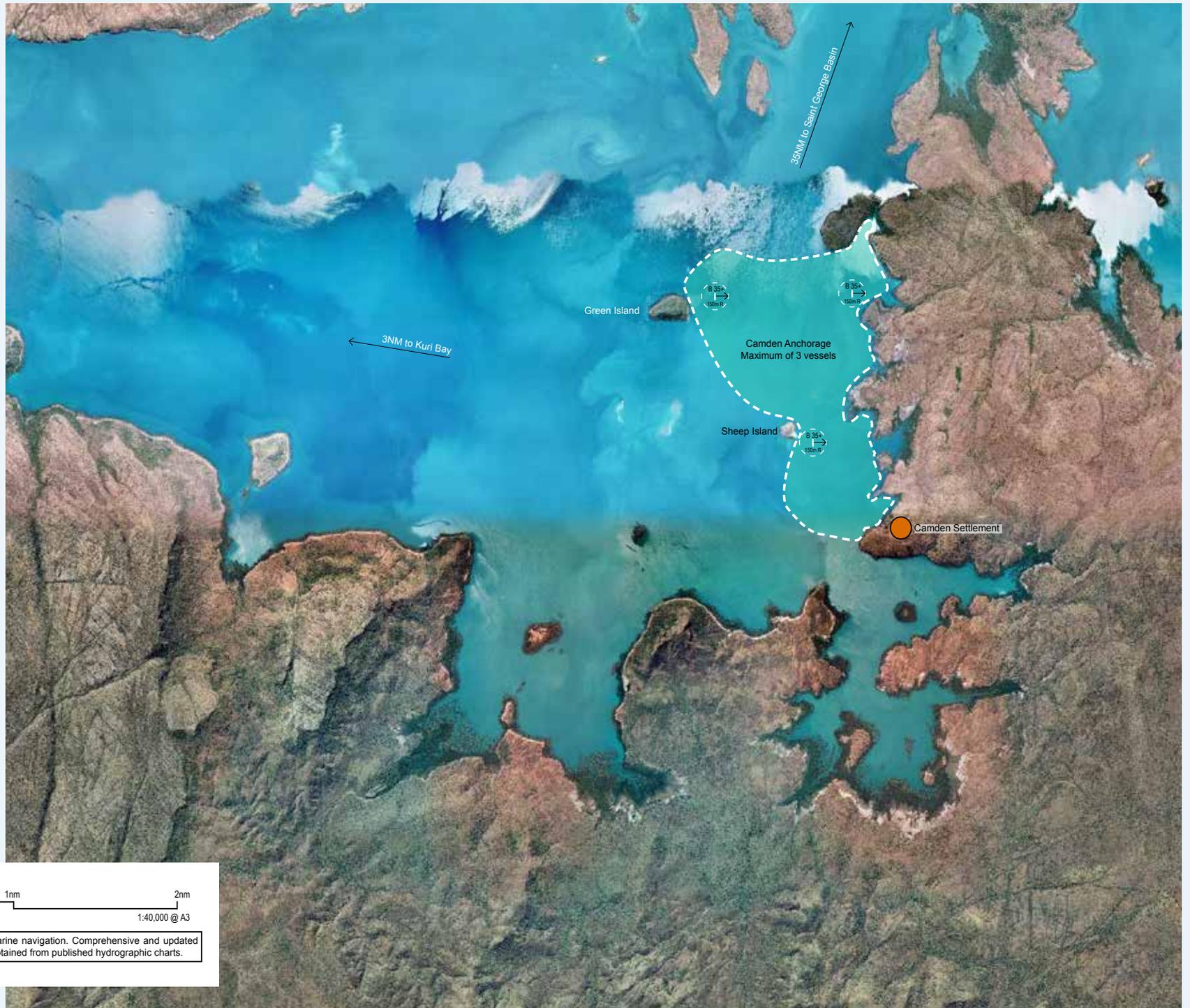
Maximum Vessel Size:

Camden Anchorage

**BOUTIQUE 35M+**



**MAXIMUM 3 VESSELS**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.

## Ngalygaany (Saint George Basin)

*Ngalygaany* (Saint George Basin) spans over 60NM<sup>2</sup> of water and is surrounded by towering sandstone cliffs and formations, beaches and the vast northern and southern mangroves. These concentrations of mangroves are two of the largest blocks in Australia, with each comprising more than 70km<sup>2</sup> of mangrove forest. Key landforms (and central geo-cultural features) within and around the basin include *Goomalamala* (Saint Andrew Island) and *Ngayaang-gananya* (Mount Trafalgar).

Entry to the basin is via Strong Tide Point with key anchorages in either of the two mangrove tributaries in the northeast corner of Saint George Basin, and in the tributary in the southwest corner of the basin. An additional anchorage may be taken north or south of where the Prince Regent River flows into the Basin.

DBCA are aware of a number of incidents involving both private and commercial vessels running aground in the Munster Waters/ St George Basin area. Unchartered waters, numerous submerged hazards, inexperienced masters, strong tidal currents and dramatically varying water depths are all factors influencing increased risk for vessels entering *Ngalygaany* (Saint George Basin).

### Adjacent on-country sites

Saint George Basin

### Management plan zone

General Use

### Visitor experience

- Anchoring (passive viewing from the boat)
- Fishing
- Scenic cruising
- Fauna viewing (bird, crocodile and dolphin watching)

### Tides / time of day

All tides suitable at a variety of anchorages across the basin and tributary mangrove creeks.

### Visitor experience setting

Natural / Recreation **N/R**

### Site issues

- Scale and presence of large cruise vessels on entry into Prince Regent River. Potential scheduling conflicts between different vessel types.
- Unchartered waters and macro tides creating navigation hazards for vessels.
- High level of activity in the Prince Regent River prompting evaluation of capacity.
- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.

### Management recommendations

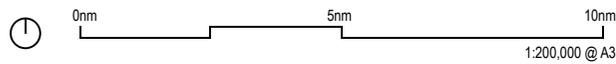
- Anchorage/s: Implement a size limit at each anchorage (up to Large Cruise) and maximum number (9) anchored vessels across four anchorages.
- Monitor vessel traffic on Prince Regent River to determine whether future capping of numbers is warranted.
- Implement a compulsory call point upon entry to Saint George Basin in order to prevent vessel collision (to be included in a Code of Practice).
- Implement compulsory pilotage for vessels above 30,000 tonnes entering Saint George Basin.





## Ngalygaany (Saint George Basin)

Visitor Precinct: Saint George Basin





## Ngalygaany (St George Basin) – Northern Mangroves

Visitor Precinct: Saint George Basin

### Recommended Anchorage Capacity

Maximum Vessel Size:

Northern Mangroves  
Anchorage 1

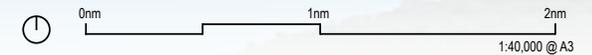


**MAXIMUM 1 VESSEL**

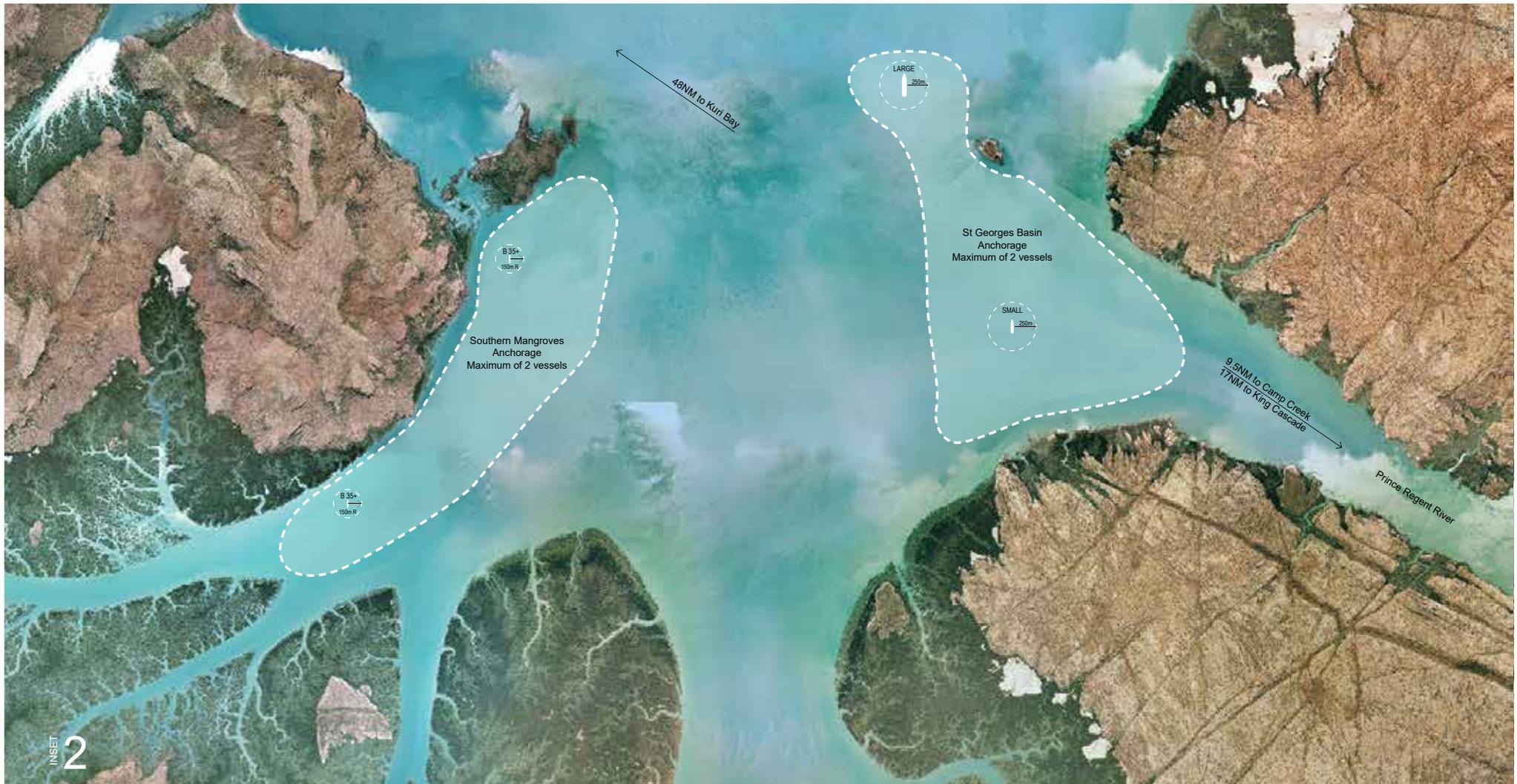
Northern Mangroves  
Anchorage 2



**MAXIMUM 2 VESSELS**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.



## Ngalygaany (Saint George Basin) – Southern Mangroves

Visitor Precinct: Saint George Basin

### Recommended Anchorage Capacity

Maximum Vessel Size:

Southern Mangroves Anchorage

**BOUTIQUE 35M+**



**MAXIMUM 2 VESSELS**

Saint George Basin Anchorage

**SMALL CRUISE**



**MAXIMUM 1 VESSEL**

**LARGE CRUISE**



**MAXIMUM 1 VESSEL**



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## Banjaddoo (Camp Creek)

This site is a popular day visit and occasional overnight anchorage with cruise operators and touring yachts. *Banjaddoo* (Camp Creek) includes two Dambeemangarddee listed visitor sites, that can be visited with permission and a Traditional Owner guide including a rock art location and fresh water. The anchorage is relatively shallow and recommended for catamarans only.

*Banjaddoo* (Camp Creek) is located on the southwest side of Prince Regent River approximately 10NM upstream from *Ngalygaany* (Saint George Basin). There is a distinctive saddle in the hills on the northeast side of the river just beyond the *Banjaddoo* outflow. The entrance to the creek is between two steep rocky cliffs and a sandbar extends from the east side part way across the entrance.

The head of the creek is about 2.8NM upstream over numerous drying sand ridges. Tenders typically access on an incoming tide about two hours after low water, then return from approximately 1.5 hours after high water.

### Adjacent on country sites

*Banjaddoo* (Camp Creek Falls and rock art) – accessible only with a traditional owner guide

### Management plan zone

General Use

### Visitor experience

- Anchorage overnight in Prince Regent River at creek mouth
- Fishing for barramundi
- Anchoring (passive viewing from the vessel)
- Scenic cruising
- Fauna viewing (bird, crocodile and dolphin watching)

### Tides / time of day

Best explored on incoming tide to assist with safe navigation.

### Visitor experience setting

High Use 

### Site issues

- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**   
They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.

### Management recommendations

- Anchorage/s: Implement a size limit at each anchorage (boutique 35m+) and maximum number (2) anchored vessels.
- Work closely with Dambeemangarddee and tourism operators visiting *Banjaddoo* to ensure anchorage guidelines are followed and are consistent with their operations.

## Banjaddoo (Camp Creek)

Visitor Precinct: Saint George Basin

### Recommended Anchorage Capacity

Maximum Vessel Size:

Camp Creek Anchorage

**BOUTIQUE 35M+**



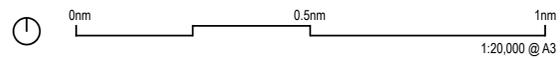
**MAXIMUM 1 VESSEL**

Camp Creek South Anchorage

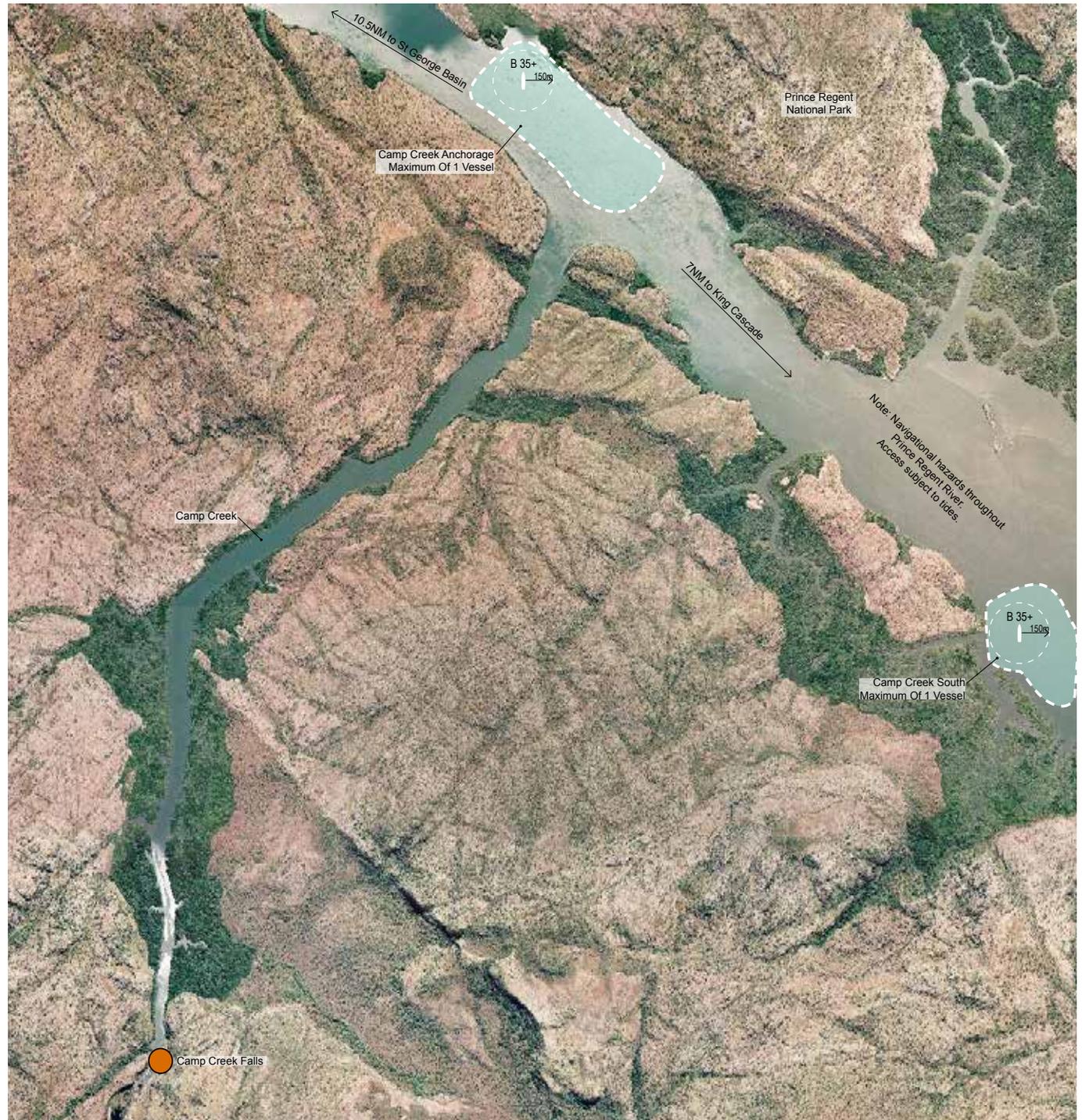
**BOUTIQUE 35M+**



**MAXIMUM 1 VESSEL**



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## Mambulbada (King Cascade)

Mambulbada (King Cascade) is situated on the Prince Regent River 5.7NM upstream from the Prince Regent National Park boundary. It is a significant cultural site for Dambeemangarddee people, featuring in creation stories. It is a compact site with high visitation, resulting in a compromised (crowded) visitor experience at times. Vessels occasionally enter the small inlet at the base of the falls nudging the bow under the falls. A walk trail from the base of the falls extends up along the western wall of the falls to pools and smaller falls further upstream.

The cascades are a key itinerary feature for the majority of the micro cruise industry operators. Historically, operators have managed their visits to the site to minimise overlap. The six hour tidal window requires scheduling between operators to position themselves along the river within 4NM of the cascades. It is practical for no more than two operators to anchor near the site at a time. There is also another temporary anchorage approximately 0.75NM downstream from the cascades.

### Management plan zone

Site located within Prince Regent National Park.

### Visitor experience

- Anchoring (passive viewing from the boat).
- Exploring the various cascade levels by foot and fresh-water swimming in the upper falls.
- Estuarine (saltwater) crocodile viewing and bird watching.

### Tides / time of day

Tidal conditions determine access. Limited to high tide due to large mud bank at entrance to cascades from Prince Regent River

### Visitor experience setting

High Use **H/U**

### Structures/facilities

Guiding rope along walk trail to upper falls.

### Site issues

- Constrained feature, boats nosing into cascades, blocking access to others
- Estuarine (saltwater) crocodiles are common in the Kimberley. **BE CROCWISE**  They can be found in any waterway. Crocodiles are dangerous and attacks can be fatal.

### Management recommendations

- DBCA in consultation with industry develop a booking and scheduling system.
- Anchorage/s: Implement a size limit (boutique 35m+) and maximum number (2) of anchored vessels.
- Review visitor and operator experience regularly and adjust management to suit; and
- Consider an Anchoring Restricted Area in the small inlet at the base of the falls.



Mambulbada (Kings Cascade)

## Mambulbada (King Cascade)

Visitor Precinct: Saint George Basin

### Recommended Anchorage Capacity

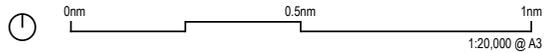
Maximum Vessel Size:

King Cascade and King Cascade North Anchorages

**BOUTIQUE 35M+  
(MAX. 50M IN LENGTH)**

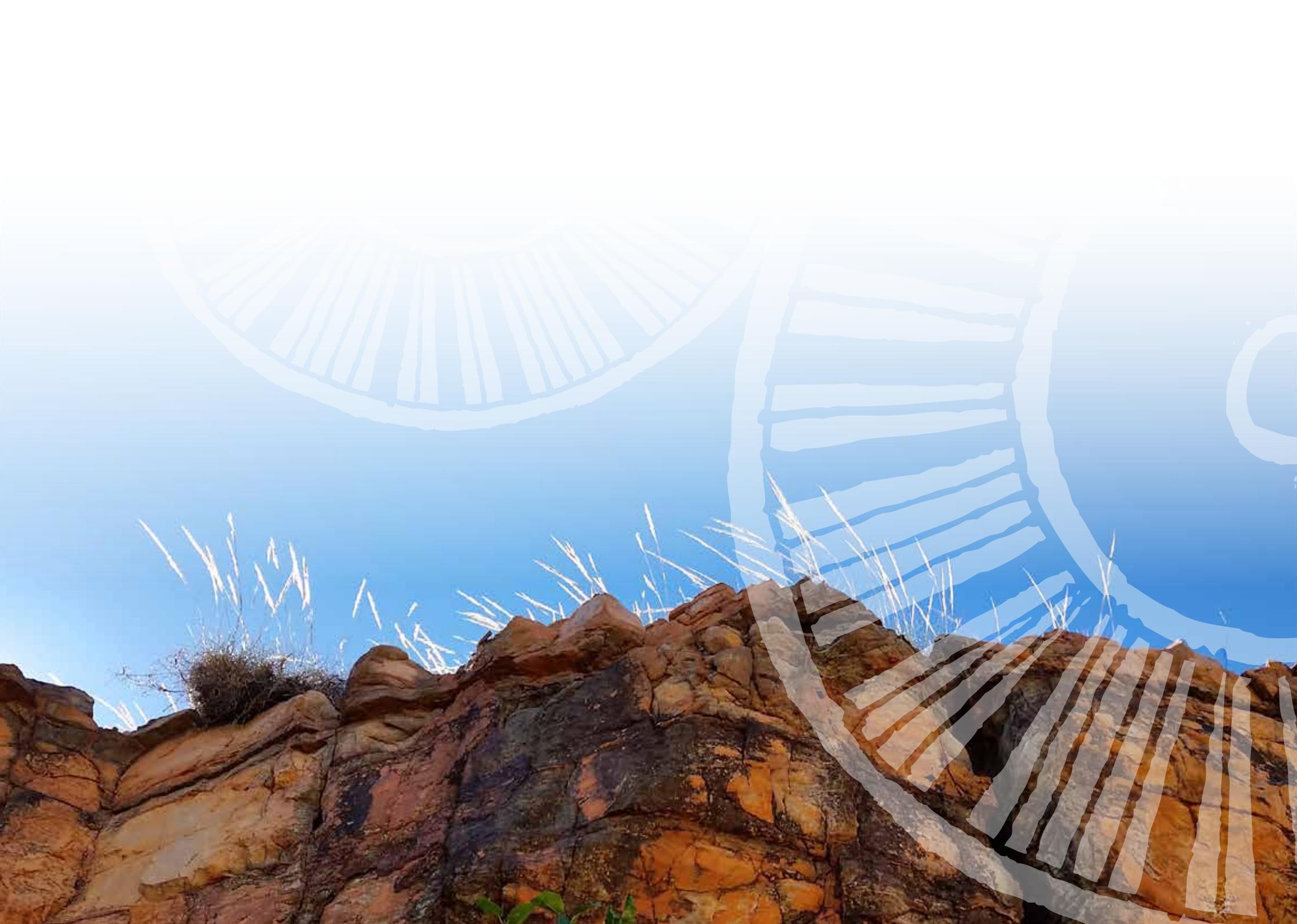


**MAXIMUM 2 VESSELS**



**WARNING** This map must not be used for marine navigation. Comprehensive and updated navigation information should be obtained from published hydrographic charts.





# Implementation

## Regulatory management

During the consultation phase of this visitor plan a number of literature reviews were commissioned to independent research consultants. Findings from international experiences indicated that by taking a regulatory approach, early significant environmental or social impacts can be avoided. This visitor plan proposes a mix of non-regulatory and regulatory management approaches. The JMB may consider that further management options with a higher degree of regulation may be required in the future. This would be progressed through a review of this visitor plan and in consultation with the tourism industry.

## Review

Given the dynamic nature of the cruise tourism industry, DAC and government priorities, it is intended that this plan is reviewed through the JMB on a regular basis. Any review should be linked to visitor monitoring, an assessment of key anchorages and capacities and demand for tour operator licences.

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