

The background of the cover is a photograph of a person fishing in shallow water at sunset. The person is in the foreground, silhouetted against the bright orange and yellow light of the setting sun. They are holding a long fishing rod. In the distance, another person is visible in a small boat on the water. The background features several large, rounded rock formations or islands under a hazy, orange sky. The bottom of the cover is overlaid with a dark blue, abstract graphic consisting of overlapping curved shapes.

# **Bribie Island National Park and Recreation Area: Sustainable Visitor Capacity and Management Study**

**Recommendations**

June 2022

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## Disclaimer

*The information and recommendations provided in this document are made on the basis of information available at the time of preparation and the assumptions outlined throughout the document. While all care has been taken to check and validate material presented in this report, independent research should be undertaken before any action or decision is taken on the basis of material contained in this report. This report does not seek to provide any assurance of project viability and EarthCheck accepts no liability for decisions made or the information provided in this report.*

## 1. Purpose of this report

This report provides a summary of analysis and recommendations for the Bribie Island National Park and Recreation Area (BIRA): Carrying Capacity and Sustainable Visitor Management Study (SVCM).

The accompanying **Technical Appendices** document contains a consolidated summary of detailed research conducted during the study including reports on traditional owner, community, permit holder and business & tourism surveys.

### 1.1. Study Requirements

The aim of the SVCM study is to assess current site profiles, demand, and impacts, inform future management decisions and tourism/visitor strategies, and demonstrate an achievable and sustainable outcome for these areas.

The SVCM study considers the current use and condition of Bribie Island National Park and Recreation Area, as well as future aspirations of traditional owners, community and key stakeholders. Recommendations are provided as options for government consideration to address current management challenges and intentions, including a range of future potential options including changes to use of sites, alternative opportunities, adjusting uses at sites, and infrastructure and management actions that could positively assist in achieving a more sustainable and enjoyable visitor experience, balanced with the need to maintain the area's natural and cultural values.

The overall SVCM project is being delivered in two stages:

1. Bribie Island National Park and Recreation Area and Cooloola Recreation Area in the first stage; and
2. K'gari (Fraser Island), Great Sandy National Park in the second stage.

Key project components include:

- Assessment of sites against contemporary protected area and recreation area management practices.
- Analysis of existing data, reports, management plans and other information provided by the Department of Environment and Science (DES) on each of the sites.
- Engagement with traditional owners, community and key stakeholders.
- Site visits to assess the situation at key visitor nodes.
- Determination of carrying capacities for each site (where possible given data constraints) and modelling of the pattern and level of usage.
- Provision of recommendations to implement the identified capacities.
- Provision of recommendations on incorporating adaptive management principles, including monitoring, and reviewing timeframes and thresholds for change.
- Review of visitor behaviours and current compliance arrangements for both commercial and non-commercial visitors, resulting in recommendations about options for improving enforcement of visitor behaviour and capacities.

## 1.2 Project Methodology

Key stages in the methodology used to undertake the project are as follows:

<b>I. Site Assessment/Fieldwork and Data Analysis</b>	
Best practice & policy review	<ul style="list-style-type: none"> <li>Review of literature and international best practice on tourism carrying capacity to identify practices and techniques employed in similar environments.</li> </ul>
Review of existing carrying capacity methodology	<ul style="list-style-type: none"> <li>Consideration and review of the Department's current datasets carrying capacity methodology against contemporary practice.</li> </ul>
Review of existing data	<ul style="list-style-type: none"> <li>A comprehensive review of the existing data, to understand visitor flows, geophysical and ecological characteristics, and tourism impact (volume and value).</li> </ul>
Identification of data/input gaps	<ul style="list-style-type: none"> <li>Identification of any data gaps which are essential to identify carrying capacities and inform management decisions.</li> </ul>
Review of management, enforcement, and decision-making structures in relation to the sites	<ul style="list-style-type: none"> <li>A review of the governance structures in which the destinations are managed.</li> </ul>
Site reviews	<p>A program of site reviews facilitated by QPWS Rangers to review geophysical and biological attributes, constraints and opportunities that exist as well as to review and understand existing infrastructure and visitor services that support the experiences. The site reviews helped:</p> <ul style="list-style-type: none"> <li>Identify the site's special values and any existing visitor facilities.</li> <li>Define the desired setting to maintain the visitor experience, taking visitor behaviour into account.</li> <li>Assess any visitor impacts on site condition.</li> <li>Identify any constraints on visitor use of the site (such as car parking capacity).</li> </ul>
Helicopter perspective on the Recreation Area, balanced with site-specific reviews	<p>To best address carrying capacity and sustainable visitor management issues, a balance of site-specific and area-wide perspectives has been taken. Issues such as entry points, area-wide policies, compliance, safety, traffic movements have significant area-wide aspects, as well as the site-specific issues at visitor hotspots. Individual sites reviewed are:</p> <ul style="list-style-type: none"> <li>North Spit</li> <li>Poverty Creek Campground</li> <li>Fort Bribie</li> <li>Ocean Beach Campground</li> <li>Ocean Beach/ Lagoons</li> </ul>

## II. Stakeholder Engagement

An extensive program of consultation with Traditional Owners and identified key stakeholders – Commercial tour operators, Local residents/park users, Peak conservation bodies, Local Councils, Local Members, Tourism Industry, Research institutions, Queensland Government – police, ambulance, QFES, Queensland Parks and Wildlife Services and Partnerships.

Consultation was conducted via:

- Workshop meeting with Kabi Kabi elders.
- One to one interviews with key stakeholders.
- DES teams and departments including Coastal and Islands Region, Permissions Management and Ecotourism Development, On-Park Visitor Experience, Parks and Forest Policy Unit, Compliance, Great Sandy National Park and Bribie Island teams, and Communications and Engagement Unit.
- Distribution of an e-survey to tourism and other businesses including commercial tourism operators/permit holders<sup>1</sup> (alongside individual interviews with key businesses).
- Distribution of an e-survey to vehicle/ camping permit holders for BIRA over the previous two-year period.
- Distribution of an e-survey to the local community – using social media and existing community networks.

## III. Analysis

Weighing up economic and visitor benefits and environmental and community issues makes determination of a site or destination's carrying capacity a complex issue. It is probable that different thresholds will apply to different sites and vary over time given changing market circumstances. A one-size-fits-all approach for assessing carrying capacity of tourist destinations is unlikely to be feasible; therefore, a framework or model needs sufficient flexibility to account for individual site circumstances. As such a framework built around DPSIR (drivers, pressures, state, impact, and response

- DPSIR is a causal framework for describing the interactions between society and the environment: Human impact on the environment and vice versa because of the interdependence of the components. The European Environment Agency have adopted this framework. The components of this model are:
  - Driving forces: e.g., industry, tourism, economic growth, population.
  - Pressures: e.g., pollution, land-use change, population growth.
  - States: e.g., water quality, soil quality, air quality, habitat, vegetation.
  - Impacts: e.g., visitor experience, ill public health, habitat fragmentation, economic crisis, environmental damage, biodiversity loss.
  - Responses: e.g., policy, regulations.

<sup>1</sup> From 19<sup>th</sup> September to 17<sup>th</sup> October 2021, surveys were distributed to community, permit holder and business stakeholders. The surveys were instigated to fill gaps in evidence required to develop well-informed recommendations on carrying capacities and visitor management options. The surveys covered overall sentiment towards BIRA, as well as perspectives on identified sites.

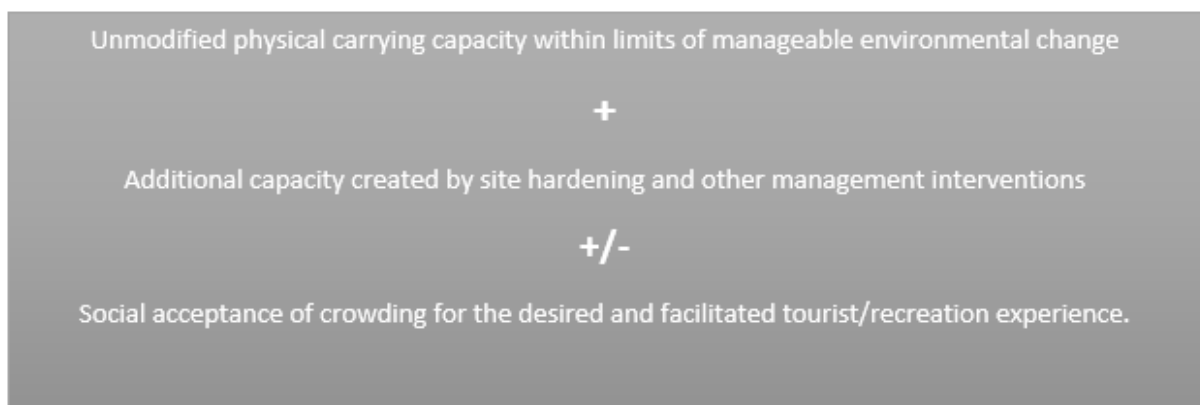
model of intervention) components has been used.	
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IV. Reporting	
	<ul style="list-style-type: none"> <li>• Key research/study findings and recommendations</li> <li>• Technical appendices report</li> <li>• Final report</li> </ul>

### 1.3 Concept of Carrying Capacity

Discussion on the growth limits and carrying capacity of tourism destinations is not new. Carrying capacity has been at the heart of sustainable tourism management and aims to provide “time/space-specific answers” at individual sites.

There are many definitions of this concept, the most prominent of which in a tourism context is from the United Nations World Tourism Organisation (UNWTO) which defines carrying capacity as “the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic and socio-cultural environment and an unacceptable decrease in the quality of visitors’ satisfaction.” In recent times, the concept of over-tourism and its triggers/measures has become intertwined with carrying capacity.



However, the reality is that calculation of a “single carrying capacity number” is often not feasible for reasons such as inability to factor in future management action, quality/limits on data inputs and differences in thresholds established by tourists and residents, and ecological resilience for individual sites. However, the concept of carrying capacity can still be used to identify critical impact thresholds, and for examining changes (i.e., a tool which aids sustainable management). In summary:

By defining a carrying capacity, managers have a benchmark for planning use against which monitoring of visitor numbers and ecological change can be assessed to inform adaptive management.

### 1.4 The Need for Decisive Action on Sustainable Management Solutions

Sustainable management solutions at BIRA are required to:

- Respond to immediate peak management pressures; and

- Respond to inevitable longer term increased visitor pressures – driven in part by recreational and leisure trends and Southeast Queensland population growth.

#### 1.4.1 Immediate peak management pressures

Immediate pressures on infrastructure have been apparent at peak periods over a sustained period of time – school holidays, long weekends, and public holidays.

Vehicle access permit (VAP) purchases (annual and weekly) have risen at a modest level over the past 5 years – 2.4% between 2016/17 and 2020/21, but with strong growth in 2021/22 where 43,185 VAPs were purchased in the year to March 31<sup>st</sup> (9 months).

Figure 1: BIRA VAP Purchases 2016/17 to 2021/22

VAPs	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022 (to 31 March 9 months only)
<b>Bribie Island RA</b>	37,932	38,546	38,120	32,283	38,837	43,185

Growth in demand during 2021 can in a large part be attributed to COVID-19 and its restrictions on travelling interstate and overseas, which saw Queensland residents not only holidaying at home, but keen to get out into nature and beaches once lockdown/s were lifted. This situation is echoed in many national parks across Australia where similar visitation patterns are being experienced, and management responses such as imposing vehicle limits or instigating temporary closures are being put in place.

Until international and domestic travel is normalised, continued growth can be expected. As demonstrated in 2021 during school holidays, public holidays and long weekend, BIRA is expected to continue to have exceptionally busy peak periods over 2022 and 2023.

Figures 2 and 3 show consistent growth in visitor participation in visiting national parks/ State parks as an activity<sup>2</sup>:

- For day visitors there was a 67% growth in participation between 2015 and 2019 at Queensland and Australia-wide levels.
- Visiting a national/State park rose as a share of all activities by day visitors from 4.7% to 6% in Queensland over the 2015 – 2021 period.
- For domestic overnight visitors there was a 40% growth in participation between 2015 and 2019 for Queensland as a whole.
- Visiting a national/State park rose as a share of all activities by domestic overnight visitors from 9.8% to 12.4% in Queensland over the 2015 – 2021 period.
- Factoring in the lockdown periods where no or restricted visitation was possible, there is no reason to believe that overall visitation numbers would not have also continued to show outright growth during 2020 and 2021.

<sup>2</sup> Tourism Research Australia 2015-21. Please note that this data set is based on visitor definitions, which exclude travel by residents within their LGA

Local population growth is also a factor to consider. The population on Bribie Island has grown by 12% to 20,252 between 2012 and 2020. For Moreton Bay as a whole, the population growth during the same period (2012-2020) was 20.92%.



Figure 2: Day Visitor Participation in Visiting a National Park/State Park<sup>3</sup>

		YE Dec 2015	2015 Share of all visitor activities	YE Dec 2016	YE Dec 2017	YE Dec 2018	YE Dec 2019	YE Dec 2020	YE Sep 2021	2021 Share of all visitor activities	2015-19 Growth
Queensland	Visit national parks / state parks	1,892,000	4.7%	2,519,000	2,349,000	2,860,000	3,168,000	2,390,000	2,417,000	6.0%	67.4%
Australia	Visit national parks / state parks	9,762,000	5.4%	11,317,000	11,428,000	13,628,000	16,321,000	10,133,000	10,958,000	6.6%	67.2%

Figure 3: Domestic Overnight Participation in Visiting a National Park/State Park<sup>4</sup>

		YE Dec 2015	2015 Share of all visitor activities	YE Dec 2016	YE Dec 2017	YE Dec 2018	YE Dec 2019	YE Dec 2020	YE Sep 2021	2021 Share of all visitor activities	2015-19 Growth
Queensland	Visit national parks / state parks	1,997,000	9.8%	2,124,000	2,373,000	2,527,000	2,787,000	2,044,000	2,522,000	12.4%	39.6%
Australia	Visit national parks / state parks	9,209,000	10.5%	9,628,000	11,151,000	12,756,000	14,173,000	9,548,000	11,599,000	14.0%	53.9%

<sup>3</sup> Source: National Visitor Survey, Tourism Research Australia, 2015-2021

<sup>4</sup> Source: National Visitor Survey, Tourism Research Australia, 2015-2021

There is a clear trend in increased demand and visitation over a period of time, however it is important to note that there will undoubtedly be some moderation in demand once international travel for Australians is considered safe again.

#### 1.4.2 Longer-term management pressures

Longer term management requirements will need to be informed by appropriate data, but there seems to be little doubt that population growth will mean increased demand for recreational space, including at BIRA.

Trends include:

- The increased demand for SUVs and 4WD vehicles shows no sign of slowing down<sup>5</sup>. Sales of 4WDs in Australia show consistent above average growth compared to other vehicle types. Models such as Toyota Hilux, Ford Ranger, Toyota Prado, and Mitsubishi Triton consistently rank high in new car sales in Queensland. Similarly, caravan sales continue to show strong growth (26.7% over the 5 years to 2020).<sup>6</sup>
- Strong demand for nature-based tourism and visits to national parks (please refer to figures 2 and 3).
- As noted in figure 4, regional and local population growth projections are significant - local and regional recreational demand from residents is highly likely to continue to be the dominant driver of usage levels for BIRA. These regions are the key source areas for visits to BIRA.<sup>7</sup>

Figure 4: Forecast Local and Regional Population Forecasts

Area	Population Growth
South-East Queensland <sup>8</sup>	<ul style="list-style-type: none"> <li>• Anticipated growth of an additional 1.9m people between 2017 and 2040 (growth of 54%).</li> </ul>
Moreton Bay LGA <sup>9</sup>	<ul style="list-style-type: none"> <li>• Forecast growth from 438,313 in 2016 to 690,602 in 2041 (medium projection), an increase of 252,289, a 57.6% rise over 25 years. <ul style="list-style-type: none"> <li>• For the 2021-2031 period, forecast growth is for 107,486 additional residents (22.2% overall growth).</li> <li>• For the 2031-2041 period, forecast growth is for 99,373 additional residents (16.8% overall growth).</li> </ul> </li> </ul>

The pressure of increasing demand at BIRA, being driven in large part by continued population growth, is understood. Management action will be necessary to mitigate the potential of unchecked growth.

<sup>5</sup> [https://documents.parliament.qld.gov.au/committees/TRC/2021/VehSafetyStdTech/qton-24May2021\\_AAAA.pdf](https://documents.parliament.qld.gov.au/committees/TRC/2021/VehSafetyStdTech/qton-24May2021_AAAA.pdf)

<sup>6</sup> <https://caravanstats.com.au/wp-content/uploads/2020/12/2020-Caravan-and-Campervan-Data-Report.pdf>

<sup>7</sup> Appendix 2, question 2

<sup>8</sup> <https://dsdmipprd.blob.core.windows.net/general/shapingseq.pdf>

<sup>9</sup> [www.qgso.qld.gov.au/issues/5276/qld-population-projections-regions-reports-local-government-areas-sa2-report-2018-edn.pdf](http://www.qgso.qld.gov.au/issues/5276/qld-population-projections-regions-reports-local-government-areas-sa2-report-2018-edn.pdf)

While a simplistic scenario, the potential impact can be illustrated by considering that if visits to BIRA were to continue to grow in tandem with population forecasts with no capacity limits, this could mean annual VAP purchases (i.e., weekly and annual VAPs combined) could rise from 38,837 in 2020/21 to 61,207 in 2041.

#### 1.4.3 The need for a destination management approach

It is recognised that visitation patterns to Bribie Island as a whole, and to the National Park and Recreation Area are complex. The island's mix of growing residential areas, National Park and other spaces mean visitors are travelling for a range of purposes. Considerations include:

- Visitors accessing the site are using weekly and annual VAPs.
- Visitors enjoy a range of experiences including enjoyment of nature, camping, socialising, fishing, 4WD use, and surfing.
- Local communities who have been enjoying Bribie as a place to visit prior to National Park/ Recreation Area designation.
- A rapidly growing population in northern Brisbane and Moreton Bay whose closest beach is located on Bribie Island.
- Bribie is South-east Queensland's most accessible beach for 4WD groups and enthusiasts.
- Passionate local conservation bodies.
- Management intent and priorities of First Nations Peoples.
- Amenity of Bribie Island residents.
- The business interests of Commercial Tourism Operators in the Recreation Area.
- Balancing competing user demands of user groups with the values and desired state and values for the Recreation Area.

#### 1.4.4 Management Context

Management context and strategic intent is provided in the Bribie Island National Park and Bribie Island Recreation Area Management Statement 2013, and in the application of the Values-Based Management Framework (VBMF).

BIRA is managed to the Exceptional Level of Service for visitor management due to the significant number of visitors; its status as major tourism destination; and the need to conserve the natural values which are critical to the visitors' experience. Exceptional is the highest Levels of Service (LoS) benchmark used to set the desired management standards across all Queensland National Parks.

The Values-Based Management Framework (VBMF) is an adaptive management cycle that incorporates planning, prioritising, doing, monitoring, evaluating, and reporting into all areas of QPWS's park planning and management accountabilities.

Adaptive management is fundamental to the Values-Based Management Framework (VBMF). Monitoring the condition of key values, through time, is essential for determining the effectiveness of on-ground management. The condition of key values is assessed through the Health Checks program. Adaptive management enables QPWS to be more flexible and proactive and improve management effectiveness over time. Forests and reserves are kept healthy by:

- Managing and protecting the things that matter most—our key values
- Strategically directing management effort towards priorities
- Delivering our custodial obligations as a land manager
- Setting a level of service for all parks, forests, and reserves
- Building systems that support decision making for adaptive management
- Building support for what we do through accountability and transparency
- Striving for improvement through structured learning and doing

Levels of Service are applied to eight park management elements for each park:

- Fire management
- Pest management
- Natural values management
- Historic cultural heritage management
- Community and third-party interests management
- Visitor management
- Field management capability
- Operational planning and management support

### 1.5 The need to manage to balance environmental and visitor risks

The implications of short to medium and longer-term demand drivers of the types noted in section 1.4 can be viewed in the form of a series of management risks. Considerations include:

- Visitor safety outweighs other considerations. It is reasonable to assume that a combination of peak visitor volumes and behavioural issues such as speeding, and dangerous driving in populated beach areas could relate to increased visitor safety risks.<sup>10</sup> There would seem to be a number of visitor hotspot areas, where it would be legitimate to take visitor management actions solely based on improving visitor safety. With increased peak visitor pressure and an increased overall volume of visits, it can be assumed that safety concerns would also grow in proportion to these increases.
- Hazardous driving behaviour and safety risks could increase, heightening the need to consider management responses on capacity, environment, and visitor behaviour.

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<sup>10</sup> Technical Appendix 2, Q19

- Key drivers such as population growth and continued popularity of 4WD/ beach and nature-based activities mean that the status quo in terms of management arrangements at peak periods may not be tenable beyond the short to medium term, with pressures highly likely to continue to grow. A combination of capacity management, visitor management, infrastructure and compliance measures will be essential into the future.
- Any inability to measure usage or impact to an appropriate level gives rise to potential risk in terms of accounting for statutory obligations under legislation and international agreements:
  - This can be managed by focusing on gaining a better understanding of the underpinning issues which impact on management obligations, safety, environment, and visitor experience.
- Compliance operations and monitoring systems<sup>11</sup> since number plate recognition cameras were installed observed high levels of non-compliance, with a need to consider further mitigating actions.
- QPWS has systems for recording regulating Commercial Tourism Operators (CTOs) and camping, but there are currently no tools to regulate overall volume of vehicle-based visitors. Currently available vehicle access permits being available for BIRA (weekly, and annual) exacerbates monitoring challenges.
- Visitor volume and behaviour issues are of concern for local residents, and conservation stakeholders, as well as from a visitor experience perspective.

An exceptionally busy set of peak demand periods over 2022 and beyond may intensify demands for more interventions with management solutions.

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<sup>11</sup> Analysis of traffic management cameras by QPWS estimates an approximate 30% non-compliance rate in vehicles having the appropriate VAP

## 2. Overview of Capacity Issues

### 2.1 Overview

Research during the study has confirmed that capacity issues manifest themselves at Bribie Island National Park and Recreation Area, particularly in the form of day visitors during peak visitation periods. Key issues to note are:

- Evidence demonstrates there are **capacity and behavioural impacts, especially at peak times**.
- Stress on popular sites and infrastructure, predominantly from **day visitor pressure**. Camping, in large part, does not present significant capacity issues.
- Forecast and trend data indicates that without management intervention, **demand will continue to increase**, driven by population growth and societal/leisure trends.
- The area has a **complex range of visitor groups**, accessing BIRA via weekly and annual VAPs as well as the growing residential population on the island and wider northern Brisbane/ Moreton Bay region.
- There are currently no accurate **means to regulate** overall visitor numbers, including day visitor peaks, although a system was introduced through COVID restrictions to limit numbers by way of requiring a restricted access area authority, and the Automatic Number Plate Recognition System (with single entry and exit points), for the first time has enabled an accurate measure on total vehicle movements.

DPSIR is a causal framework for describing the interactions between society and the environment: Human impact on the environment and vice versa because of the interdependence of the components, which has been used to frame this carry capacity and sustainable visitor management study.

The European Environment Agency have adopted this framework. The components of this model are:

- Driving forces: e.g., industry, tourism, economic growth, population.
- Pressures: e.g., pollution, land-use change, population growth.
- States: e.g., water quality, soil quality, air quality, habitat, vegetation.
- Impacts: e.g., visitor experience, ill public health, habitat fragmentation, economic crisis, environmental damage, biodiversity loss.
- Responses: e.g., policy, regulations.

#### Drivers and Pressures

Chapter 1 of this report discusses a range of drivers and resulting pressures which contribute to peak-period capacity challenges - recreation, population growth and tourism are to the fore. Management priorities for Bribie Island National Park and Recreation Area recognise the economic potential of tourism, however, at present the area's user profile indicates that recreation and leisure pressure is a greater driver of capacity and demand than tourism/ economic activity.

In practical terms, capacity issues impact on management in a number of areas:

#### Impacts

- Natural pinch points, including the main access point at Woorim. Visitation hits daily peaks at entry/leaving times – queuing traffic and vehicle noise is noted as a problem.

- High numbers of vehicles on the beach during peak holiday periods, with concentration at hotspots including Ocean Beach/ Lagoons and Fort Bribie.
- Clustering of visitors at hotspots including Ocean Beach/ Lagoons and Fort Bribie.
- Perception and optics – large streams/ parking of 4WDs on the beach is perceived as being at odds with management values and the National Park/ Recreation Area setting.
- Environmental and habitat challenges, the most significant of which in the context of a busy Recreation Area environment are litter, the impact of bush toileting, hardening/creep of areas surrounding campsites, and damage to dune ecosystems. Conservation groups note significant concern for the impact of vehicles on the beach on the local turtle population.
- Potential health issues related to bush toileting, particularly at First and Second Lagoons.
- Different stakeholder groups are impacted by high visitation levels in different ways.
  - Permit holders/ visitors are concerned primarily by falling experience levels.
  - Communities have a focus on conservation values and peak traffic levels impacting negatively on local amenity.
  - Conservation and environmental stakeholders have concerns regarding a range of issues such as setting and habitat including damage to dune habitats and impact on flora/ fauna on the beach and inter-tidal zone. The impact of bush toileting at the Lagoons was a particular issue noted.

Review of stakeholder survey data and available environmental management information suggests that behavioural issues, and peak visitation contribute to:

- Decreases in visitor experience levels.
- Loss of amenity for residents who are closest to traffic queues and visitor hubs.
- Concerns about damage to Traditional Owners' places of cultural significance.

### **States**

- Degraded habitats and environments, with bush toileting and damage to dunes/areas surrounding the camping zone and visitor hubs. Community, business, and permit holder responses to surveys undertaken indicate that degraded habitats and environments is the area of most significant concern.

### **Management Implications and Responses**

Available evidence gathered during the study points towards the need to consider implementing visitation limits at peak periods alongside developing the capability to regulate (ability to book for the time you are visiting). A comprehensive and staged package of management responses could include:

- Benchmarking the desired state (value).
- Development and application of further specific measures for sustainable use.
- Establishment of tools to regulate those measures, and
- Monitoring mechanisms that enable the result of managed use against the desired state to be demonstrated.

### 3. Principles for Sustainable Visitor Management Recommendations

The following principles underpin the recommendations for sustainable visitor management actions. The recommendations set out in section 4 of this report directly correspond to these principles.

- The balance of stakeholder sentiment and available management data indicates that the peak day visitor volumes are perceived to be too high and contribute to a reduction in visitor experience as well as the potential for cultural and environmental impacts. However, to be credible with stakeholders, capacity is not the only issue which needs to be addressed. Sustainable management solutions need to integrate capacity/volume, management, infrastructure, and visitor behaviour.
- Management actions need to be aligned with primary obligations for management of the natural environment balanced with the associated nature-based recreation, however stakeholders and user groups are diverse with strongly held views that do not always align with these requirements. As such, presentation as a package (capacity, compliance, pricing, infrastructure, experience) provides an opportunity to gain support and manage expectations.
- Feedback from user (permit holder), community and business surveys and stakeholder interviews indicate that many of the immediate management concerns identified are associated with visitor behaviour. As a general principle, it is recommended that a suite of management actions including regulatory changes and compliance are considered for implementation with a view to influence a positive change in visitor behaviour, with the impact of actions assessed against desired benchmarks.
- Setting daily capacity limits should be considered as part of the package of sustainable visitor management measures and responses. While limiting capacity is in many ways a final management response, the extent of ongoing drivers and pressures means that it should be considered as a management tool in the short to medium term.
- Determining carrying capacity requires a nuanced approach which relates to visitor demand and the characteristics of the National Park or Recreation Area in question. Ideally a consistent set of management techniques, pricing and policies would be applied across the parks estate in SEQ, even if only focusing initially on parks which have a high value from a community recreation perspective. e.g., recreation areas. Tiered pricing based on value of setting and experience provided has merit for consideration as part of a suite of management tools.
- Emphasis on instigating a program of short-term management measures such as applying appropriate penalties which incentivise compliance, maintaining a zero-tolerance approach to compliance, and potentially introducing daily capacity limits for peak demand periods, alongside a longer-term management perspective which addresses demand drivers such as population growth and associated recreational pressures.
- Seek an appropriate balance between enforcement and compliance, and proactive management. Despite the scale of management challenge, the aspiration should seek to balance social license with appropriate communication and management techniques.



- Management measures need to be enforceable. Without appropriate compliance, the management regime is undermined. QWPS estimates of Automatic Number Plate Recognition System data on its implementation indicates that the rate of non-compliance for VAPs was approximately 30%. This level of non-compliance has been consistent, indicating that visitor behaviour is not yet changing. Further action and new approaches are necessary to bring about the required change.
- The stakeholder survey results summarised in **Technical Appendix 2** and their support for a range of management measures provides a sound basis for new management considerations. The visitor management issues identified are largely well known, however, strong levels of community, permit holder and business support give additional weight for consideration of new or enhanced management action.
- The open nature of Bribie Island National Park and Recreation Area means that many of the recommendations are area-wide in scope. Where management data supports it, site-specific recommendations have also been incorporated.

## 4. Recommendations

### 4.1 Short to medium term considerations

The following series of recommendations covering safety, capacity, infrastructure, pricing & fees, proactive visitor management, cultural and environmental management, business & economic measures, and site-specific issues, focus on short-term management considerations. Options detailed in the following section of this report include considerations for:

- Measures which adequately consider safety and aid the protection of seasonal wildlife movements by minimising unnecessary night-time traffic movements on the beach.
- Introducing a daily cap/maximum on vehicles accessing BIRA during peak periods – for example, a trial cap on number of vehicles (including camping) for a 12-month pilot period.
- Consideration of making access to BIRA during peak periods by daily VAP only, or through some form of daily capping by way of a regulatory or booking system change.
- Continued and improved communication with visitors as part of sustainable visitor management.
- Targeted investment in new infrastructure, including consideration of portable toilet rollouts and a new toilet provision at the Lagoons.
- With a view towards removing traffic load from the beach and spreading the peak vehicle access/ exit pressures from Woorim, review opportunities for an alternative Ocean Beach access point. In reviewing available options, it is recognised that the lack of elevation on Bribie presents practical challenges – option analysis would need to consider the potential benefits against construction and maintenance costs, the potential environmental impacts of maintaining an inland track and potential economic impact on Woorim businesses.
- Reviewing pricing in the context of State-wide and other similar jurisdictional considerations – in the context of placing a more appropriate value on camping, vehicle access, and unique visitor experience, and its potential use as a visitor management tool.
- Continued application of a zero-tolerance approach to behaviour that threatens safety.
- Applying appropriate penalties which incentivise compliance.
- Investigate further options for enhancing compliance capability.

#### 4.1.1 Consideration of measures which improve safety for visitors

QPWS advise that visitor safety is the number one priority. A range of practical measures can be considered to improve visitor behaviour, building on the good progress made by inter-agency compliance initiatives at peak periods. Specifically relating to safety, consideration of the following is recommended for consideration.

1. **Speed.** Stakeholder surveys conducted during the study recorded strong levels of recognition of speed being a significant safety concern, alongside other driving-related behavioural issues.<sup>12</sup> Outside camping areas, a maximum speed limit of 50 km/hr currently applies. It is recognised that safe beach driving conditions vary with the tides, and there are practical reasons for requiring a certain speed limit to travel safely from A-B (between high tides).

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<sup>12</sup> Appendix 2, question 19

**Current speed limit compliance** is recommended as an ongoing priority, and where possible, continued to be supported by a cross-agency compliance team, with communication on speed limits and compliance being reinforced as further support.

2. Linked to measures which enhance visitor safety and protect seasonal wildlife movements, **consider the feasibility of measures which discourage non-essential night-time driving to minimise unnecessary beach traffic movements**, where these measures consider appropriate safety requirements for emergency access and can be supported by monitoring and compliance systems, and available resourcing. Orientation at BIRA supports enforcement of this measure, with entry/ exit points at Woorim and White Patch. There are a number of examples of this type of technique being used in Australia and internationally (seasonally and on a year-round basis<sup>13</sup>).

Issues for consideration include:

- i. Exclusions may be required for fishing access, camping and emergencies.
- ii. Visitor Safety is the primary reason to consider restricting night-time driving, however it can also contribute to the additional aim of protecting seasonal wildlife. The impact of interventions will need to be clearly understood and balanced, with any action taken as part of appropriate overall management of the BIRA.
- iii. Better aligning driving and access regulations with tidal patterns.
- iv. Consideration of activities such as fishing which legitimately may require travel on the beach after sunset, and whether a specific permit (new type) would be required to facilitate this type of activity.
- v. The practicality of enforcing regulations. An option to consider could be use of automated boom gates at Woorim and White Patch, linked to VAPs or camping permits with QR Code technology.
- vi. A potential pilot study regarding limiting night-time vehicle beach access.

#### 4.1.2 Consideration of introducing caps on day visitor and camping capacity as part of a package of management measures

The amount of beach and bushland space throughout BIRA is significant. However, analysis of visitation patterns shows that there are capacity challenges related to peak day visitor levels.

Issues include:

- Natural pinch points, including the Woorim Beach access point. Analysis shows that while the proportion of vehicles using the Woorim and White Patch entry/ exit points varies with tidal conditions, the Woorim entry/exit point accounts for most vehicle movements – typically in excess of 75% of total traffic on busy days<sup>14</sup>.
- Increased Traffic at Peak holiday periods.
- Daily peak entry/leaving times, which are exacerbated when aligned with higher tides.
- Clustering of visitors at hotspots such as the camping zones, Ocean Beach/Lagoons, North spit and, Fort Bribie.

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<sup>13</sup> <https://www.broome.wa.gov.au/Home/Tabs/Latest-news/Protecting-our-turtles-with-temporary-beach-closures>

<sup>14</sup> ANPRS cameras

- Perception and optics – large streams/ parks of 4WDs on the beach are at odds with some people’s perceptions on the image and objectives of National Parks and Recreation Areas.

Available evidence suggests that alongside behavioural issues, peak visitation does contribute to:

- Decreases in experience levels of visitors.
- Increased stress on popular visitor sites at peak times.
- Reduction in amenity for residents who are closest to traffic queues and visitor hubs.
- Concerns about impacts to Aboriginal cultural places and values.
- Degraded habitats and environments, with bush toileting and damage to dunes/areas surrounding camping zones and visitor hubs. Community, business, and permit holder responses indicate that degrading habitats and environments is the area of most significant concern. Bush toileting is also noted as a potential health issue.

Many of these issues have individual behavioural elements attached, nonetheless peak visitor volumes are an important contributing factor. A particular challenge for BIRA is the relatively close proximity and ease of access via a bridge to the City of Brisbane (especially the northern suburbs), alongside a rapidly growing Moreton Bay population. Recreational pressure will not subside.

**Technical Appendix 4** contains an analysis of capacity observations at BIRA.

Key observations to note include:

- For majority of the year, exceeding capacity or peak visitation loads is not a significant issue – there are typically between 10 and 20 days of the year (school holidays, long weekends, public holidays) which are consistently busy. i.e., over 1,200 vehicle movements (an estimated 600 vehicles) (assumes 1 access and 1 exit per vehicle).
- Australia Day and the October long weekend in 2021, were both exceptionally busy, with over 1,000 weekly VAPs live and over 2,400 total reads from the Automatic Number Plate Recognition System recorded. This equates to a best available estimate of about 1,200 vehicles. This scale of traffic is extraordinary and was undoubtedly shaped by the COVID-19 environment, but it is a good illustration of visitation peaks which can occur. Review of previous years’ public holiday VAP purchases demonstrate the point that while 2021 traffic volumes on these 2 public holidays were statistical outliers, peaks consistently occur at these public holiday and long weekend periods.
- Data and understanding of visitor movements is imperfect, however, allied with available information on VAP purchases, the Automatic Number Plate Recognition System provides valuable data on total vehicle movements – entry and exit point cameras provide an effective means of identifying total vehicle numbers.
- Analysis of visitation patterns conducted during this study and on-ground observations indicates that **approximately 600 vehicles (including campers and those using annual and weekly VAPs to visit for the day)** appears to be an acceptable threshold beyond which, peak visitation levels at BIRA can reasonably be considered congested .

Consideration of the following is recommended:

3. Regarding **camping capacity**, while there are a range of management and behavioural issues associated with camping, an overall beach camping capacity of **approximately 450 persons (63 pitches at Ocean Beach and 14 at Poverty Creek) appears to be appropriate**, factoring in the dynamic nature of the coastal environment and the potential safety issues along this stretch of coastline. Prioritising retention of this level of camping provision supports the economic benefits derived from tourism. This equates to **approximately 150 VAPs per day being required to provide for campsites operating at 100% capacity** (assumes an average of 2 vehicles per campsite).

This capacity reflects current levels of campsite provision, factoring in that while sites are frequently fully booked, high levels of ‘ghost bookings’ have been a recurring issue. Options for development of the camping area when established were carefully considered – the current campsites are located on a beach that has a deeper dune profile, with the beach having a profile that is less susceptible to erosion, meaning that there is limited capacity to expand in this location.

Regarding camping visitors, sustainable visitor management recommendations should focus on management, compliance, communication, and behaviour issues (covered in the following sections).

4. Regarding **day visitor capacity**, it is recommended that behaviour change, and other management initiatives are given priority in the first instance, but that **a cap on VAPs allowed per day** at peak times is considered for introduction on a trial basis - focusing on the peak holiday/long-weekend periods as a means of controlling growing day visitor pressures.

This trial cap on day visitors would be in addition to a VAP allocation for camping visitors identified in recommendation 5 if adopted. If combined with actions to effectively address non-compliance with VAPs and application of other recommended compliance and behaviour change measures, this package has the potential to result in a step-change in overall sustainable visitor management capability.

5. Regarding a **permitting/ VAP system** which enables daily visitor volumes to be regulated, options are presented in Technical Appendix 4 (Figure C). For the identified peak days per year where traffic movements are significantly above the norm (a maximum of 20 days per year), consider the introduction of a system where access is based on requiring a **pre-booked single daily peak period VAP** as this is one option. Considerations include:
  - i. An appropriate number of joint camping/VAP permits could be reserved (for example, 77 sites would require up to an estimated **150 VAPs**).
    - The introduction of a VAP package consisting of camping and vehicle permits could support management in this area.
    - The need for a dynamic booking system capability that allowed VAPs to be allocated between day visitors and campers up to the total capacity limit i.e., spare VAP capacity could be allocated to day visitors if campsites are not fully booked.
  - ii. In general terms, the range of VAP options (weekly and annual) currently available for BIRA makes managing daily visitor capacities challenging – the current access regime

does not provide for managing or enforcing a daily maximum number of vehicles. While it is apparent that management benefits would likely be realised, it is noted that any amendments to VAPs and access options may require regulatory change, a regulatory impact statement, and system enhancements, as well as a clear understanding of the impact on visitors who have been visiting BIRA under well-established access arrangements.

- An option to provide more effective management control is the introduction of vehicle access via pre-booked daily VAPs on identified peak periods. This would mean removing the option for purchasing weekly VAPs during this period and excluding the identified peak periods from annual VAPs.
  - Implementation detail would need to be determined, but a ballot system would seem to be an appropriate booking mechanism. The alternative to a ballot system, is a straightforward “first come, first served” booking system. Deterrents to ghost bookings/ unused capacity would need to be considered under either approach.
- iii. Available daily VAPs (excluding the allocation for camping) could be **capped at a trial number, for example in the range 400-500. At the 450 midpoint in this range, with camping VAPs included, this would effectively be a daily maximum vehicle total of 600 at BIRA.** The key to obtaining the necessary management control is to require these VAPs to be pre-booked during defined peak periods.
- A new or adapted booking system would be required to ensure efficient operation. Alternatively, this recommendation could potentially be implemented as a variant of the restricted access permit used during COVID-19. Ideally, longer-term solutions would be technology-led e.g., RFID or QR codes.
  - In the longer term, compliance effort could be enhanced by an automated system that links number plate recognition with automated issuing of penalties.
  - Consideration would need to be given to the booking horizon/advance booking period for camping during peak booking periods. Experience with camping permits indicates that the length of the booking horizon is one factor which can encourage no-shows/ ghost bookings. The booking horizon, alongside pricing are areas where new strategies need to be considered to aid effective capacity management.
  - Achieving a reduction in current non-compliance levels with VAPs requires further consideration of strategies that could be implemented to achieve compliance.
  - Subject to resources, ideally a daily capacity limit should be trialled for a 12-month period to evaluate system effectiveness and before/after impact on user experience and environment.
  - If a daily capacity limit is implemented at peak periods, there is potential for additional parking pressure at Woorim. A number of scenarios are possible e.g.
    - Visitors travelling without a VAP but choosing to stay as pedestrian visitors to the beach after vehicle access is not granted.

- Visitors choosing to travel/ visit Ocean Beach as pedestrians, and parking at Woorim.

If additional parking pressures warranted action, a visitor management partnership/ park and ride solution with Moreton Bay Regional Council or partner CTOs could be considered as part of an overall management solution to ensure effective beach access was provided for.

#### 4.1.3 Consideration of communication measures which support sustainable visitor management

Improved communication as one element of overall sustainable visitor management and as a tool for culture/behaviour change gained support from all stakeholder groups in consultation feedback. Improved communication could take the form of a range of tactical measures including on the ground information and signposting/ interpretation, the proactive and educational role provided by rangers, digital and website information, and regular communication with permit holders.

Consultation feedback reiterated the challenges of communicating effectively across a diverse range of stakeholders – public sector partners, local communities, businesses, visitors and not for profit groups/ volunteers. Communication can also be targeted at distinct user groups i.e., P-platers, 4WD enthusiasts etc. Consideration of the following is recommended:

6. Investigate establishing a **collaborative marketing framework** which reflects the appropriate balance of visitor experience and national park setting for BIRA, working closely with Moreton Bay Regional Council and regional/ local tourism organisations. An enhanced focus on visitor communications can reinforce the special nature of the Recreation Area and the management conditions that apply. Four-wheel drive and scenic drives are an important part of the experience for many visitors, and at present, this image of the area is reinforced with marketing imagery typically including vehicles on the beach. As part of communications in the future, strategic use of a broader range of imagery can assist in bringing about perception change and reinforce longer-term management intent.
7. **Integrate communications as a tool** into sustainable visitor management. For instance, delivering communications on options for dispersal or alternative coastal/ national park locations when booking levels are high or high volumes of day visitors are expected. This type of initiative can be delivered by QPWS via its digital and social media channels but will also have much more weight if co-ordinated with tourism organisations and councils. This type of tool has value from the perspective of improving visitor experience as well as helping to mitigate potential impact from high visitation levels.
8. Consider a regular and consistent **program of communication with local communities** – this could include communications about dispersal and anticipated peak demand.
9. **Investigate further resourcing of education and promotion of positive visitor behaviour.** Communication and education provide effective pathways for raising awareness of the natural and cultural values of the BIRA, visitor opportunities, safe and positive visitor behaviour, and pathways for reporting negative behaviours. Ongoing use of communication platforms such as websites and social media provides an effective way to promote positive behaviour. If ongoing resourcing and enhanced messaging and tools targeting different user groups such as fishers, P-platers, and families could be delivered, this would assist in promoting messages about any changes to VAP numbers, compliance, and safety.

#### 4.1.4 Investing in infrastructure which supports sustainable visitor management

The provision of appropriate dedicated infrastructure, given the linear nature of the beaches and characteristics of the area, and the opportunity for additional infrastructure to play a role in sustainable visitor management is reasonably limited. However, consideration can be given to the following:

10. Review opportunities for **new public toilet provision** at Ocean Beach/ Lagoons to provide facilities in these visitor hotspots. While location and tidal patterns may present challenges for hard infrastructure of this type, the area will remain popular for day visitors. Bush toileting presents environmental and health challenges which need to be addressed.
11. While communications infrastructure is not a QPWS-led matter, consideration could still be given to the **enhancement of communication capabilities/ connectivity across BIRA**. Better connectivity can provide for improved communication by mobile phone between QPWS and Queensland Police Service (QPS) and for the use of electronic devices that rangers use to perform real time VAP, camping permit, vehicle registration and driver license checks.
12. With a view towards removing traffic load from the beach and spreading the peak vehicle access/ exit pressures from Woorim, **review any other possible opportunities for an alternative Ocean Beach access point**.
13. The topography at the **beach access at Woorim** is challenging, meaning that the track is prone to rutting which makes access difficult for inexperienced drivers. Continuing to explore access options which improve visitor experience and support effective traffic management are recommended.



#### 4.1.5 Consider Pricing and Fees that Reflects Demand and Management Costs

##### **Camping Permits**

Pricing across most types of tourism experiences is an accepted tool to support demand management and visitor management as part of a package of measures. The current camping fee structure of \$6.85 per person per night, or \$27.40 per family<sup>15</sup> per night is a uniform rate applied across all camp sites. In comparison, most other states and territories apply more flexible and sophisticated pricing systems which take account of demand in separate locations as well as seasonal/peak periods.

In comparison to commercial providers and the price levels levied in other states and territories, the current \$6.85 fee is low. Certainly, the market could bear an increase without impacting on demand. Equivalent basic commercial campsites in the Moreton Bay region are typically in the \$15 to \$40 per couple<sup>16</sup> range, with an average of \$29 per couple. It is recognised, however, that pricing at BIRA is driven by government policy, and that decisions around reviewing fees would need to be considered by government within a State-wide context at an appropriate time.

##### **Vehicle Permits**

Regarding VAPs, an analysis of National Park fee comparisons is contained in **Appendix 3**. Weekly VAPs is not an option currently available in other states and territories.

A VAP for 1 week or less is currently priced at \$52.35 for BIRA. Analysis of visitation patterns indicate that for those visitors who do not choose an annual VAP, weekly VAPs are treated like daily VAPs in many instances – for instance, the area used to access BIRA on one day of a long weekend.

If government considers that future pricing changes (camping or vehicles) can be presented as a larger package of management measures which support enhanced experience, habitat protection, and better manage the space, this offers potential to build acceptance. It is recognised that hypothecation of revenues can be challenging for Governments, however, being able to demonstrate to customers how their contributions are directly supporting improved management (capacity limits, enhanced compliance, improved infrastructure etc.) can be valuable.

14. To support consistent facility provision and maintaining quality of experience, subject to government policy, consideration within a longer-term State-wide context could be given to implementing **new pricing structures for camping and vehicle access**. Options could include:
  - i. If the current per person pricing regime for camping is maintained, government could consider raising the daily camping fee to a minimum of \$10 per person<sup>17</sup>. This level of fee remains below the norm in a range of commercial camping options across Moreton Bay and Southeast Queensland. Given the demand for camping at BIRA at peak times it is also reasonable to consider the option of setting a higher fee for this area compared to QPWS sites elsewhere in Queensland.
  - ii. Given the challenges and demand that destinations such as BIRA face, the introduction of peak period or variable pricing has merits. Review of local caravan and camping sites indicates that approximately 50% use variable pricing, albeit the fee differential between peak and low seasons tends to be modest (approximately

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<sup>15</sup> A family group is defined as one or two adults and accompanying children under 18, up to a total of eight people. Children under five years of age camp for free

<sup>16</sup> EarthCheck research (caravan and camping sites listed on [visitmoretonbayregion.com.au](http://visitmoretonbayregion.com.au))

<sup>17</sup> Review of local Moreton Bay camping options indicates a typical price by person of approximately \$15 per person across a range of commercial caravan and campsites.

10%). Once again, if related directly to quality of experience, infrastructure maintenance and effective management, acceptance for a fee increase/ seasonal pricing can be built. Feedback from stakeholder surveys conducted during this study is supportive of this type of measure being considered.

- iii. Consider enforcing the current legislated modification fee for camping (\$15 fee every third modification) or building in a stronger incentive (applying the fee to every booking, or every second booking) to directly address the habit of customers booking exclusive use of sites and modifying bookings continuously to secure a site 'in case' they decide to camp.
- iv. To help address the issue of ghost camping, and to reinforce the value placed on visiting a National Park, consider adoption of a per site pricing regime. The existing individual site numbering at the Ocean Beach campground would make this change relatively easy from an operational perspective.
- v. Subject to government policy, pricing of peak period VAPs could be reviewed to increase to a level that limits ghost bookings/ no-shows. This is especially the case if daily VAPs are introduced as a management tool during peak visitation periods. The current day permit fee of \$13.60 at nearby Cooloola Recreation Area is considered too low to be an effective disincentive. Regarding fee levels for daily vehicle permits, only Tasmania offers a direct comparison within Australia where rates of \$40 per vehicle/\$20 per person apply State-wide (excluding Cradle Mountain).

Daily fees would need to be considered in the context of existing weekly and annual fees but considering a daily VAP in a range around \$20 - \$30 would be legitimate in the context of Tasmania's current charges. Considering a VAP variant of a vehicle fee plus extra passenger cost also has merit.

- vi. An alternative model, used by some jurisdictions is to offer a range of annual VAP packages. For example – a Gold VAP gives vehicle access to the area for the year with exception to specific high peak block-out periods i.e., Christmas, Easter, Australia Day and peak school holiday periods, a Silver VAP could include periods of further high use block-out periods covering all school and public holidays, and a premium Platinum VAP could include access on any date throughout the year, and pricing would be commensurate. It could include free camping for platinum holders at a designated site (would still require a booking).

#### 4.1.6 Effective compliance which supports a great visitor experience

Consensus from stakeholder feedback is that behaviour change among the current demographic visiting BIRA has a significant part to play in sustainable visitor management and has the potential to play a key role in addressing some of the capacity issues being experienced. However, stakeholders are also aware that there is an appropriate balance to be struck between ensuring rules are enforced and enabling visitors to enjoy a high-quality experience.

Specifically relating to behaviour change, consideration of the following is recommended.

15. Continuing to take a **zero-tolerance** approach to important compliance matters (speed, reckless driving, wilful damage, causing nuisance, environmental damage). This measure gained strong support in consultation feedback across all stakeholder groups. Alongside effective communication and information (potentially in the form of a communication/ messaging

campaign), zero tolerance can be a key pillar in the overall approach to compliance and enforcement, albeit implementation and resourcing challenges are noted.

- i. Introducing enhanced compliance monitoring (wider technological base monitoring), Automatic Number Plate Recognition System monitoring, and cross-referencing booking monitoring and automated Penalty Infringement Notices (PINS), can play an important role in supporting a zero-tolerance approach.

16. Applying **appropriate penalties which incentivise compliance**. This issue received strong support across stakeholder surveys and consultation feedback. Subject to legislative change in some cases, and agreement with partners including QPS, options for consideration include:

- i. Introducing increased penalties which function as a more effective deterrent to inappropriate behaviour. For instance, the ability for rangers/ authorised officers to issue driving penalties in the same manner as QPS i.e., demerit points on licences as well as fines for driving offences. It is appreciated that legislative change to support this type of measure would need to be supported by government, however this type of penalty is likely to have significantly more impact than modest financial penalties alone. In this regard, penalty infringement notices issued by rangers for the same driver conduct-related offence currently attracts approximately half the penalty amount as when dealt with by a police officer.
- ii. At present, many of the behaviour problems experienced are attributed to younger age groups, including P-plate drivers. Focusing regulations to this age group seems a practical solution but it does raise valid social concerns. An option to consider is the impact of compliance measures that apply to all visitors but would have a particular impact on this visitor demographic – for instance, applying double demerit points to driving offences on the beach.
- iii. Active application of existing driving and related regulations (e.g., no passengers in P-Platers' cars after 11pm) to build the deterrent levels for beach driving offences, and alignment with the Department of Transport and Main Roads (DTMR) -based driving related offence penalties and driver licence related points system (as enforced by Queensland Police). For instance, hooning laws allow for measures such as impounding vehicles and banning vehicles from the road. Knowledge that these laws are being applied can potentially have a significant impact on behaviour.
- iv. Enhancing change to "Direction to Leave" provisions. At present a visitor who is directed to leave a Recreation Area can return after 24 hours. Changing provisions to make this a 7 day or longer period (relative to the type/seriousness of offence) would ensure offenders were not able to reconvene immediately after being directed to leave.
- v. For identified offences, the ability to prohibit visitors or identified vehicles from visiting the area is a potentially valuable compliance tool. The key to application of this type of measure is incorporating unique identifiers into VAP and camping booking systems. Technological solutions which support verifiable ID would be ideal - validating as correct upon the vehicle details being presented before proceeding with the purchase of the permit.
- vi. Explore system capability to link VAPs to PINs, to enable repeat offenders being prevented from obtaining VAPs for an identified period.

17. **Compliance Resourcing.** There is consensus among all stakeholders about the increasing scale of task for rangers and partner agencies. Recommended options to consider include:

- i. Continued co-ordinated action among partner agencies – QPWS, QPS and DTMR. Resourcing constraints are recognised, however the ability to support the application of a new package of compliance measures for BIRA consistently over a period of time has the potential to bring about significant behaviour change if feasible.
- ii. Given the scale of the visitor management challenge in SEQ Parks including high-volume locations such as BIRA, consideration of recruiting QPWS teams with strong compliance/ enforcement skills has merit. For instance, subject to additional government resourcing being identified, a dedicated compliance team (authorised officers in the RAM Area) could support ranger teams on the ground through SEQ at peak times to enhance overall management capability. If financially feasible, this dedicated type of compliance team(s) could potentially be an efficient and effective means of achieving improved levels of visitors’ compliance, through both direct intervention and operational training and mentoring of local rangers.
- iii. Continued adoption of technological solutions which aid visitor management is also an important consideration. Installation of number plate recognition cameras has been a great step forward however can be further enhanced with integrated devices and systems which provide QPWS with greater understanding of visitor movements and which monitor and enforce (i.e., ability to be automated to issue PINs).

#### 4.1.7 Proactive Visitor Management

A wide range of practical ideas were suggested by stakeholder groups to improve safety and visitor experience and minimise potential for environmental impact and conflict between user groups. It is natural that there are varying views among stakeholder groups on management options which should be prioritised. Options include:

18. **Campfires in National Parks** remain a contentious issue, with many respondents to the stakeholder surveys seeing campfires as part of camping experiences. However, in this area, safety considerations should continue to be the primary consideration. In areas with high bushfire risk and challenges with connectivity, the ban on open fires outside fire rings in designated campsites is essential. A short-term priority to review communications to ensure there is clarity about what type of BBQs are allowed, should be considered.

19. **Minimising potential for user group conflict** is an ongoing management issue in most National Park settings, with zoning being a common mitigation technique. As visitor numbers grow, the rationale for considering new zones (such as suggested for jet skis) will grow stronger.

4.1.8 Management measures which support conservation and enhancement of habitats  
Degradation of habitats is one of the impacts of peak visitor volumes and inappropriate visitor behaviour.

20. **Bush toileting** is perhaps the highest profile and most visible environmental and potential health issue at BIRA. Survey feedback suggests that bush toileting remains an issue in peak periods.

- i. Reviewing locations where additional permanent toilets could be installed, including Ocean Beach/lagoons.
- ii. Introduction of mandatory portaloos

21. Anecdotal feedback suggests that lack of good quality information on the **impacts of visitors on environmental values** is a limiting factor for overall sustainable visitor management. Options to consider include:

- i. Annual onsite health checks are currently conducted and provide valuable detailed information on site issues. For key sites, consider conducting health checks on a more regular basis (potentially twice yearly or quarterly before each holiday period i.e., health at a glance), however the initial focus should be on determining the key environmental issues which need to be measured. An onsite evaluation (based on a consistent framework) accompanied by onsite monitoring data can guide prioritisation of research/monitoring investment and outcomes.
- ii. Explore additional partnerships with university and conservation partners on specific priority research areas.

4.1.9 Delivering sustainable economic business and economic benefits through commercial tourism

Commercial operators in BIRA provide an important means of delivering the economic potential of National Parks, supporting employment, and generating local expenditure. Compared with high-volume issues associated with day visitors to Bribie, commercial tour business activity does not represent a significant overall capacity concern at present.

22. From a business perspective, transparency in terms of opportunities/number of commercial permits available and clarity on appropriate types of activities is key. Consider undertaking a **review of tourism market demand and innovations in nature-based tourism**, current business activity, and their alignment with the values/setting of BIRA, as part of the basis for proactive engagement with businesses. Partnering with regional tourism agencies, councils or universities can add value to this type of initiative.

23. The most frequent issue raised by commercial tourism operators is the need for permit conditions which allow them to be **responsive to quickly moving market circumstances**. Any review should consider mechanisms which allows for appropriate amendments to permit conditions alongside adherence/ penalties for non-compliance with permit conditions. If businesses consistently do not adhere to contracted conditions, it is reasonable that appropriate penalties/ permit cancellation are applicable.

## 4.2 Site-Specific Recommendations

### Access points to the Beach

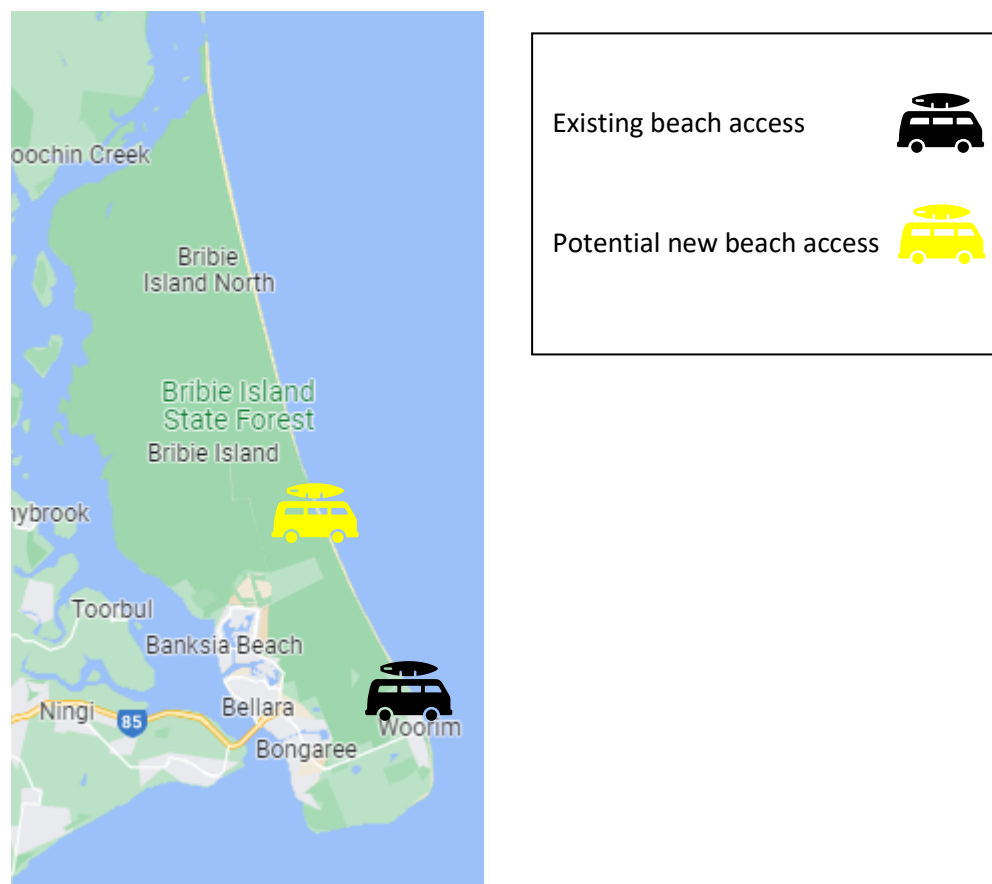
The main 4WD access point at Woorim is a natural pinch point for visitors – a factor recognised across stakeholders and survey respondents. As it is the principal entry point, peaks occur during normal busy days at morning and afternoon peaks as well as on public holidays and long weekends. While local businesses in Woorim benefit from associated visitor spending, loss of amenity for local residents (vehicle noise etc.) is noted as a concern. From a permit holder (user) perspective, a concern is that upkeep of the entrance makes for a difficult entry point, especially for inexperienced drivers.

Even though visitors note that the queuing traffic does result in loss of experience, and from a management perspective, this main entrance point at Woorim acts as an important visitor management tool in terms of accessing the beach – there is a concern that multiple access points would lead to increased usage/vehicles on the beach. Adding an additional access point would also detract from the management and monitoring benefits of having two easily managed entrance/ exit points at White Patch and Woorim at present.

Considerations include:

1. Given forecast population growth and expected continued growth in demand is such that on balance, it is recommended that in the longer term, alternative access points to Ocean Beach could be considered to ease the pressure on the current access point at Woorim. An alternative location close to Mermaid Lagoon has the potential to remove traffic volume pressures from the southern end of Ocean Beach (figure 5). Any new access point would require a full feasibility assessment to consider costs and benefits, and impact on existing traffic management on the Island.

Figure 5: Current and potential access points to Ocean Beach



2. While 4WD use is the primary motivation for many visitors, some visitors simply want to visit the beach, with driving on the beach being a necessity to reach their destination. With the aim of reducing unnecessary traffic on the beach, it may be desirable to examine the feasibility of establishing a new access at a mid-point along Ocean Beach. Ideally this access point should be pedestrian only with a car park established at a suitable point behind the dunes. It is recognised that this type of infrastructure is likely to be a major investment, however, longer term demand growth is likely to require this type of solution.

#### Northern Access Track

The northern access track provides a means of navigating the island – joining Ocean Beach with the centre of the Island and the west coast. It also offers the most challenging conditions for 4WD driving (access being subject to weather and tidal conditions). The following recommendations could be considered to aid sustainable visitor management:

3. Management which focuses on maintenance of the track to current standards.
4. Consideration of signage/interpretation along the track.

#### Ocean Beach/ Lagoons

Ocean Beach/ Lagoons is recognised as one of the busiest locations on the island, with a range of issues being identified across stakeholder groups including overcrowding, too much traffic, speeding, inappropriate behaviour, noise, litter, and damage to the environment. From an environmental perspective, bush toileting and related environmental problems are noted.

Its location is naturally attractive to visitors – the water setting, and it is a comparatively short distance from the Woorim entry point. The following recommendations could be considered to aid sustainable visitor management:

5. Review opportunities for new public toilet provision at Ocean Beach/ Lagoons to provide facilities in this day visitor hotspot. While location and tidal patterns may present challenges for hard infrastructure of this type, the area will remain popular for day visitors and enforcing a portable toilet policy for day visitors may not be practical in the short term.
6. The Lagoons Area attracts large numbers of vehicles at peak times – consider a trial to evaluate management impact of a vehicle exclusion zone within 100m of the lagoons, as a means of improving visitor experience, and improving visual amenity.
7. From a visitor management perspective, the Lagoons area will continue to be popular. Subject to resource availability, it should continue to be a focus for compliance focus/ ranger patrols on the ground.

#### North Spit

Survey feedback indicated that capacity problems are not at the level seen elsewhere on Ocean Beach. There was support for North Spit retaining its no vehicles policy as a means of protecting a sensitive environment. There was some concern about the impact of jet ski usage and access to North Spit from the water.

8. Management actions should continue to focus on maintaining the setting. Considerations include:

- i. Within the context of Moreton Bay Marine Park, review boat access and policies for jet ski usage in the area in partnership with Sunshine Coast Regional Council and Maritime Safety Queensland.
- ii. Maintaining the focus on low impact commercial activities.
- iii. Minimising impacts from day trippers in high erosion exposure areas in the context of the unstable sand environment, Ramsar designation and the recent ocean breakthrough due to cyclone Seth.<sup>18</sup>

#### Ocean Beach Campground

Ocean Beach Campground provides 63 numbered pitches for visitors, with a range of onsite amenities provided including showers and toilets etc. Although there are some concerns noted regarding environmental impact, generally the campsite works well. The most significant challenges noted by visitors were the problems associated with site availability/ghost bookings etc. The following recommendations could be considered to aid sustainable visitor management:

9. The focus at Ocean Beach Campground is on campsite management. Considerations can include:
  - i. The permit holder survey indicated some support for 'traditional' camping activities such as campfires. However, safety is paramount, with bushfire risk mitigation requiring maintenance of the policy stance of campfires only being permitted in fire rings along Ocean Beach.
  - ii. Continued development of campsite booking systems to address the current booking anomalies e.g., ghost bookings which lead to frustration for visitors.
  - iii. Visitor pressure on BIRA is largely a day visitor-driven problem – numbers of campers are small in comparison. Although counter-intuitive to managing visitor capacity is the option to considering extending camping capacity on Ocean Beach – a modest increase (up to 25%) would support future demand growth. It is recognised that any growth would need to be considered within the natural confines of the environment – Bribie Island's beach and foredunes have a narrow profile with space for camping limited to the areas that are the most stable and sustainable.

#### Fort Bribie

A range of visitor management issues were identified for Fort Bribie, although not to the same levels as sites at the southern end of Ocean Beach. Management of the heritage structures will continue to be an ongoing issue. The following recommendations could be considered to aid sustainable visitor management:

10. Review opportunities to build on interpretative information associated with Fort Bribie.

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<sup>18</sup> The North Spit area is currently zoned as non-commercial due to the unstable sand environment and RAMSAR bird zoning. Current commercial activities are limited to Marine Park permit holders in Pumicestone Passage.



### Poverty Creek Campground

The most common issue noted from project research regarding Poverty Creek is anti-social behaviour associated with group bookings. The following recommendation could be considered to aid sustainable visitor management:

11. Consider creation of numbered pitches as a means of supporting improved compliance.

### 4.3 Longer term Considerations

Longer term management requirements will need to be informed by appropriate data, but there is little doubt that population growth, alongside a range of societal trends will mean increased demand for recreational space, including BIRA. Noting the short to medium term considerations, and recognition of population growth and nature-based opportunities, it is likely that management techniques such as visitor caps, site management and limitations, enhanced and ongoing compliance, and education, may need to form part of long-term management strategies.

Longer term management considerations include:

1. Access to the area requires 4WD vehicles, which in large part, is where environmental, resident and visitor amenity concerns stem from. In the longer term, if visitor vehicle movements on the beach are to be managed, **innovations** such as beach shuttle buses may be considered. Examples such as the Royal National Park bus service<sup>19</sup> and in US National Parks<sup>20</sup> show that these types of services can have a role to play in visitor management. While not a beach setting, the shuttle bus transport arrangement in Tasmania's Cradle Mountain/Lake St Clair National Park was specifically set up to protect the important values of the World Heritage Area and preserve the visitor experience by limiting vehicle numbers in the park.
2. **Consideration of seasonal, or sectional closures** to parts of the area, accessibility infrastructure permitting. There are numerous examples of this type of measure in National Parks around the world, which can often be driven by issues such as nesting seasons, as well as providing a period for natural rejuvenation. As an example, a decision has recently been made to restrict vehicle access to Broome's Cable Beach<sup>21</sup> at night during turtle nesting season.
3. Anticipated continued growth in demand means that hardened infrastructure and application of enhanced visitor management alone is unlikely to retain the desired service levels for BIRA. **Day visitor as well as camping capacity limits** are likely to be a core part of longer-term management planning. In this context, it may also be appropriate to consider prioritising investment in alternative sites and experiences across South-east Queensland to manage demand.
4. Further **zoning** which identifies the areas that can accommodate larger visitor numbers may be required, alongside appropriate dedicated infrastructure and management resources.
5. **Continuing exploration and adoption of technologies** such as Radio Frequency Identification (RFID) incorporation into permits will be required to aid sustainable visitor management. RFID technology enables greater understanding of visitor movement and activity, as well as supporting compliance (in principle, RFID technology could be integrated with compliance systems, resulting in automated issuing of PINs).
6. While QPWS has no influence over decisions by telecommunications companies on **connectivity infrastructure** and does not invest in this type of public access communications technology, improved communication connectivity infrastructure would support visitor safety

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<sup>19</sup> <https://www.nationalparks.nsw.gov.au/things-to-do/guided-tours/royal-national-park-bus-service>

<sup>20</sup> <https://www.nationalparkstraveler.org/2009/07/park-shuttle-bus-systems-are-growing-popularity-heres-look-some-popular-examples>

<sup>21</sup> <https://www.broome.wa.gov.au/Home/Tab/News/Protecting-our-turtles-with-temporary-beach-closures>

as well as visitor management and compliance initiatives. Partnership opportunities to enhance connectivity should continue to be explored.

7. **A SEQ-wide approach to planning for beach and recreation access**, including working with Councils and other landholders. If capacity limits at BIRA are such that future demand is unable to be met, area-wide planning and solutions may be necessary. An area-wide approach can relate to planning for 4WD opportunities as well as examining opportunities to provide for alternative beach access or for specific asset facilities such as camping. This area-wide type of sustainable visitor management could also aid ambitions to help refocus Bribie's experience mix further towards nature-based activities.

