



Kati-Thanda Lake Eyre Flood Tourism Management Plan

Prepared on behalf of Regional
Development Australia Far
North and The Outback
Communities Authority

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This report has been prepared by:



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Executive Summary

Kati-Thanda Lake Eyre is a dry salt lake in the northern part of the South Australia, 647km north of Adelaide. When it fills, it is the largest lake in Australia. The lake is an amazing sight when dry, and even more so when there is water. The flooding of the lake creates a significant tourism attraction, drawing thousands of visitors from all over Australia.

It is considered that an appropriate way to describe the visitor activity generated by water in the lake is as ‘flood tourism’, as a flood presents a significant tourism opportunity throughout the entire Lake Eyre Basin. Whilst visitation brings enormous benefit to businesses in the two closest communities to the lake - Marree and William Creek - it also adds significant challenges in the form of the pressure it places on services, both in those communities and the broader Outback region.

This Kati-Thanda Lake Eyre Flood Tourism Management Plan has been prepared to provide a strategic, informed and coordinated set of recommended initiatives to plan for and manage the impacts of visitation to the Outback as a result of flooding events.

The consultation undertaken to inform this report revealed that, instead of a need to establish a planned response to water events as one-off short-term ‘incidents’, it is more appropriate to take a longer-term approach to addressing key infrastructure, services and related issues in a sustained fashion. In other words, rather than preparing a plan of action that responds to water events as occasional occurrences, the evidence points to the need for a strategic approach which accommodates water events as endemic to the local visitor economy’s growth and development over the long-term.

Kati-Thanda Lake Eyre is a ‘jewel in the crown’ of a unique Outback visitor destination that can be developed and promoted as one of Australia’s primary tourist attractions, for the benefits it will deliver to the communities surrounding the lake and the wider Outback region. For this to be achieved requires a well-informed, strategic and co-ordinated approach to addressing key infrastructure and services shortfalls as well as the preparation of a destination promotion and management plan for the area to ensure that opportunities to grow the visitor economy in a sustainable fashion are realised.

Taking a longer-term strategic planning and implementation approach to addressing infrastructure and services pressure points in the area will provide local communities and the region with a greater capacity to accommodate visitation uplifts generated by water events as the catalyst for sustained growth in visitation to the Outback over the long-term.

Key matters addressed as part of this flood tourism management plan concern the environmental capacity of the local community and the wider region to manage uplifts in visitation associated with a water event, as well as sustained growth in visitation to the communities near the lake and the Outback region. This includes matters concerning:

- Visitor accommodation;
- Roads;
- Emergency services;
- Waste management;
- Visitor information;
- Telecommunications; and
- Governance.

Recommendations made are as follows.

Visitor Accommodation

The findings of this study suggest that, on the whole, visitor accommodation supply is in line with demand. With any uplift in visitation associated with a water event, the increased demand can be catered for in existing hotel and cabin-style accommodation and self-contained accommodation - caravanners, camper trailers, campervans, campers and those on tours with tents. Should spare capacity be exceeded, towns further away from the lake can accommodate the overflow.

The following recommendations are made:

- That local stakeholders work together to respond to demands for any extra accommodation beyond capacity by seeking formal commitment to a local accommodation register. This would include existing accommodation providers, station owners, tour operators and even residents interested in renting out their homes or part of their homes as 'B&B' style accommodation. The first step would be to undertake an audit of existing capacity across these various accommodation categories that can be called upon when needed.
- In anticipation of continued growth in visitor numbers to the lake over the coming years, it is recommended that a business case for recommissioning the former caravan site in Marree be undertaken.

Roads

In the context of an objective to promote the Outback region as a nationally significant tourist destination, it would be advantageous to provide additional sealed roads. The following recommendations are made:

- That a feasibility study / business case be commissioned into the proposal to seal the Oodnadatta Track from Marree to William Creek and then the William Creek Road to Coober Pedy.
- Pending the outcomes of this work, it is recommended that the proposed sealing of these sections of road be afforded priority status in the Outback region's strategic advocacy efforts.

Emergency Services

Despite the existence of a raft of information on how to prepare for travel through the Outback and the availability of emergency services, reliance on volunteer resources to provide emergency services against a backdrop of poor communications results in critical safety issues for locals and visitors alike.

There was a widespread view amongst those consulted that many visitors to Kati-Thanda Lake Eyre and the wider Outback region are ill equipped to deal with emergencies that might arise such as a vehicle breakdown, health issues, being stranded due to floods or becoming lost. It is apparent that a high proportion of visitors do not access or do not heed the advice that is available on web sites or on roadside signs.

The following recommendations are made:

- That the OCA, with the support of RDA Far North and the Flinders Ranges and Outback Tourism Committee, continue to promote the 'Come Prepared, Stay on Track, Keep it Clean and Respect the Outback' Aussie Travel Code campaign (www.aussietravelcode.com.au) to ensure that visitors to Kati-Thanda Lake Eyre and the Outback destination take more responsibility for basic safety rules and procedures.
- The OCA continues to articulate the views, interests and aspirations of the Outback Community in an effort to reduce the reliance and impact on untrained and under-resourced volunteers to need to respond in times of avoidable need.

Waste Management

Waste management issues in the Outback region, and in particular in the communities nearest the lake, include limited sewerage capacity; no public dump points which creates a potential for illegal dumping on roadsides or in the bush, which is a public health hazard, not to mention an amenity issue; and biosecurity issues, especially with the threat of foot and mouth disease entering Australia. Meat products pose a particular risk and disposal of waste must be carefully managed.

The following recommendation is made:

- That the OCA, in partnership with RDA Far North and the Flinders Ranges and Outback Tourism Committee, facilitate a conversation with the Department for Infrastructure and Transport and the Department for Environment and Water with a view to prepare a road network facilities plan to identify locations for rest stops with toilets and with dumping points at strategic locations. Funding can then be sought for implementation in a staged manner beginning with identified priority locations.

Visitor Information

Investment in a collaborative and co-ordinated approach to visitor information management is key to ensure that consistent, reliable and authoritative information dissemination is coordinated, with the buy-in and support of all stakeholders including local operators. Three key areas need to be addressed: visitors' expectations regarding water in the lake; Outback hazards affecting visitor safety; and branding (promotion).

The following recommendations are made:

- That key agencies and operators work together in support of a single, authoritative and impartial 'lead' web site as the primary source of visitor information regarding the status of water in the lake and trip preparation.
- A *Kati-Thanda Lake Eyre and Region Destination Management Plan* is prepared to deliver a strategic and informed approach to promoting and managing visitation to grow the local and regional visitor economy in a sustainable fashion. This would cover research, marketing (including branding), visitor information and wayfinding.

Telecommunications

Deficiencies in telecommunications infrastructure and services pose real issues for locals and visitors alike. These issues relate to the ability to do business, which has consequences for the economic development of the Outback region and the ability of locals to access education and health services. The situation also creates difficulties in relation to accessing and co-ordinating emergency services.

The following recommendations are made:

- That the OCA seek to install public wi-fi services into Outback Communities to support the growing demand for online services and communications.
- Working with RDA Far North and the South Australian Tourism Commission, determine an appropriate delivery model for enhanced visitor information and service provision through the existing tourism business network.
- Investigate telecommunications solutions with a focus on new low-cost technologies. Specifically, engage with both NBN Co. and private service providers to identify both existing and potential alternative solutions (e.g. low-orbit satellite solutions) and work with government through the OCA to advocate for infrastructure funding support.

Governance

During the stakeholder consultations, views were expressed that systems of governance are less than effective and are perceived to be remote from the area. Some people are of the view that there is a lack of local ‘democracy’.

There is a case that a program of preparing town plans for all settlements and towns would resolve many of the infrastructure and services shortfalls and visitation response and management issues raised during the consultations. Agencies making decisions on matters such as road closures and maintenance (and others) should be required to consult locally, and this can be facilitated by the OCA.

The resourcing of the OCA is a critical issue, and this warrants an enquiry into the scope and magnitude of the tasks it must carry out and the resources it will require. This will be particularly pressing given the desire to promote Kati-Thanda Lake Eyre and the region as a nationally recognised tourist destination and to cater for the uplift in visitation that will ensue.

The following recommendations are made:

- That a program of town plans be rolled out for the settlements and towns and that the program be adequately funded.
- The OCA liaise with agencies that are remotely administering aspects of the area to ensure greater sensitivity and responsiveness to local needs as articulated in the Outback Futures Report <https://www.oca.sa.gov.au/news/latest-news/outback-futures-report/Outback-Futures-Report-December-2021-LR.PDF>.

The preceding recommendations have been identified as critical matters to address both the challenges and opportunities for investment in tourism support infrastructure, services and facilities in and around Kati-Thanda Lake Eyre in a coordinated and sustainable fashion. This will ensure that the local communities nearest to the lake and the region more broadly, will be well-placed to respond to water events as a defining and endemic driver of the local visitor economy’s growth and development over the long-term.

1. Introduction

1.1 Project Background

Kati-Thanda Lake Eyre is a dry salt lake in the northern part of the South Australia, 647km north of Adelaide. When it fills, it is the largest lake in Australia. The lake is an amazing sight when dry, and even more so when there is water. Lake Eyre Basin covers almost one sixth of the Australian continent and is the world's largest internally draining river system. The flooding of the lake creates a significant tourism attraction, drawing thousands of visitors from all over Australia.

Tourism operators in Marree and William Creek, along with the scenic flight sector have a 'good season' on the back of the water in the lake. Communities along the transport corridor to the lake also benefit from visitation as do tour companies offering flights from major cities across Australia. It is considered that an appropriate way to describe the visitor activity generated by water in the lake is as 'flood tourism', as a flood presents a significant tourism opportunity throughout the entire Lake Eyre Basin.

Whilst visitation brings enormous benefit to businesses in the two closest communities to the lake - Marree and William Creek - it also adds significant challenges in the form of the pressure it places on services, both in those communities and the broader Outback region. These challenges include key infrastructure pressure points that need to be addressed in order to ensure that opportunities for economic development resulting from visitation can be capitalised upon for the benefit of the local communities and the wider Outback region. Visitors to the region are often ill prepared to deal with the hazards of outback travel and this imposes significant demands on locals to respond to emergency situations.

This Kati-Thanda Lake Eyre Flood Tourism Management Plan has been prepared by SC Lennon & Associates on behalf of Regional Development Australia Far North and The Outback Communities Authority to provide a strategic, informed and coordinated set of recommended initiatives to plan for and manage the impacts of visitation to the Outback as a result of flooding events. This follows the findings of an economic analysis and assessment of Kati-Thanda Lake Eyre, which was prepared in January 2021. The economic analysis demonstrated that water events have the potential to benefit both businesses and residents in the communities nearest to the lake, with significant economic flow-ons throughout the rest of the Outback region and beyond.

1.2 Project Purpose: Developing a Sustained Response to Water Events

The purpose of this Flood Tourism Management Plan is to put in place a plan of action so that infrastructure and service capacity constraints can be effectively addressed in a strategic and coordinated manner, to manage uplifts in visitation associated with a flood event, as well as sustained levels of visitation to the communities near the lake (and the Outback region more broadly) as the visitor economy grows over time.

This Plan recognises that, whilst individual businesses can undertake their own strategies to fulfil their needs and maintain an advantage over their competitors, the sheer scale of increased visitors in and around the townships proximate to the lake and region, as well as the risk of adverse impacts to the local community and existing economic sectors, requires the development of an overall response to meeting future demand.

Using the information and findings presented in this report is an important first step to delivering a strategic, informed and targeted approach to accommodating visitation to one of Australia's most iconic natural attractions to facilitate sustainable economic development. In order to effectively address challenges and opportunities

associated with visitation uplifts and continuing growth in visitation over time, priority response measures must be identified and agreed upon amongst key stakeholders and decision-makers.

The consultation undertaken to inform this report revealed that, instead of a need to establish a planned response to water events as one-off short-term ‘incidents’, it is more appropriate to take a longer-term approach to addressing key infrastructure, services and related issues in a sustained fashion. In other words, rather than preparing a plan of action that responds to water events as occasional occurrences, the evidence points to the need for a sustained strategic approach which accommodates water events as endemic to the local visitor economy’s growth and development over the long-term.

Taking this longer-term planning and implementation approach will provide local communities and the region with a greater capacity to accommodate visitation uplifts generated by water events as the catalyst for sustained growth in visitation to the Outback over the long-term.

Key matters addressed as part of this flood tourism management plan concern the environmental capacity of the local community and the wider region to manage uplifts in visitation associated with a water event as well as sustained growth in visitation to the communities near the lake and the Outback region as the visitor economy grows over time. This includes matters concerning visitor accommodation, transport (roads), visitor information, emergency services, waste management, telecommunications and governance.

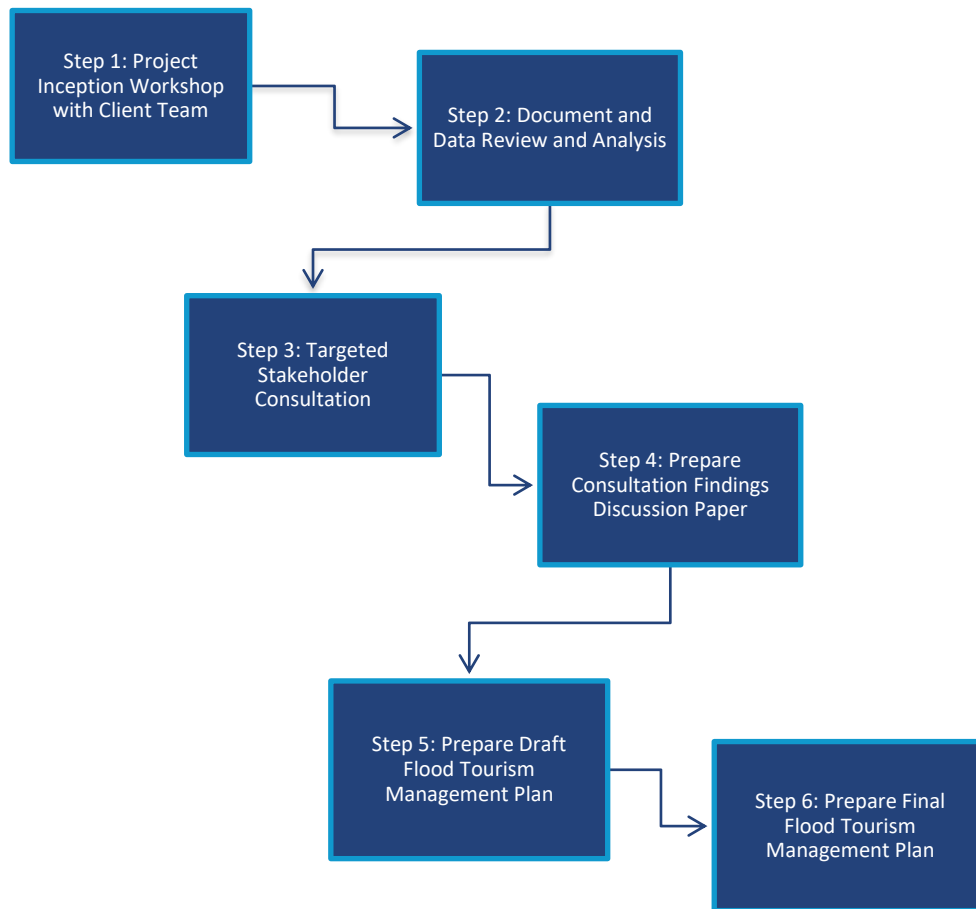
1.3 Project Scope and Method

This report documents a planned response which can be utilised by government, businesses, community and other key stakeholders to meet the demand created by water events. It seeks to address both the short-term challenges created by water events and enabling the community and businesses to capture opportunities created by increased visitor attraction. Consultation in the communities surrounding the lake and with other key stakeholders and decision-makers has been essential to informing the findings of this report, with a robust and grounded plan that has stakeholder buy-in.

Informed by targeted consultation and engagement with key government agencies, industry bodies and community stakeholders, this report provides a flood tourism management plan which:

- Builds on the narrative of the *Kati-Thanda Lake Eyre Economic Analysis* by articulating the economic value of the lake, with recommendations for future capitalisation on those opportunities;
- Documents capacities and resource constraints and requirements, including key services and enabling infrastructure;
- Provides clear and manageable recommendations for driving specific strategies (with priority initiatives identified);
- Provides recommendations to guide governments, industry and the community in meeting visitor demands associated with water events, ensuring both direct and flow-on impacts and any unintended consequences are managed ahead of time and the benefits of Kati-Thanda Lake Eyre as a catalyst attractor can be maximised; and
- Addresses matters of governance including organisational responsibilities and key partnerships.

The method employed to inform this plan is shown in Figure 1.

Figure 1. Study Method

The recommendations presented in this report include themed strategic responses as well as the identification of specific initiatives which could be pursued as priorities under each of these key themes. Recommendations are presented in Section 4 of this report, following a contextual overview of the important contribution Kati-Thanda Lake Eyre makes to the Outback region's culture, community, environment and economy.

2. Water Events at Kati-Thanda Lake Eyre in Context

2.1 The Lake's Cultural and Environmental Significance

Kati-Thanda Lake Eyre is a very special place for the Arabana and the Dieri People. The area's First Nations people have been living around the lake for thousands of years, and it plays a central role in many of their stories and songs. As an important cultural site, Traditional Owners are involved in the lake's management.

During the northern monsoon season, rivers from the north-east part of the Lake Eyre Basin in outback Queensland flow towards the lake through the Channel Country. The amount of water from the monsoon determines whether water will reach the lake and, if it does, how deep the lake will get.

When there's water in the lake, waterbirds descend in the thousands, including pelicans, silver gulls, red-necked avocets, banded stilts and gull-billed terns. Fish, such as the Lake Eyre Basin sub-species of golden perch and various small hardyhead species confined in dry times to a few permanent waterholes, ride the floods across the basin. The lake becomes a breeding site, teeming with species that are tolerant of salinity.

Figure 2. Kati Thanda Lake Eyre Location



Source: <http://ontheworldmap.com>

2.2 A Record of Flooding Events at Kati-Thanda Lake Eyre

Typically a 1.5-metre flood occurs every three years, a 4-metre flood every decade, and a fill or near fill occurs a few times a century. Since 1885, this has occurred in 1886–1887, 1889–1890, 1916–1917, 1950, 1955, 1974–1977, and 1999–2001, with the highest flood of 6 metres recorded in 1974. Local rain can also fill the lake to 3 to 4 metres, as occurred in 1984 and 1989. According to local operators, anything more than 1.5 metres of water in Lake Eyre makes it commercially viable for tour operators.

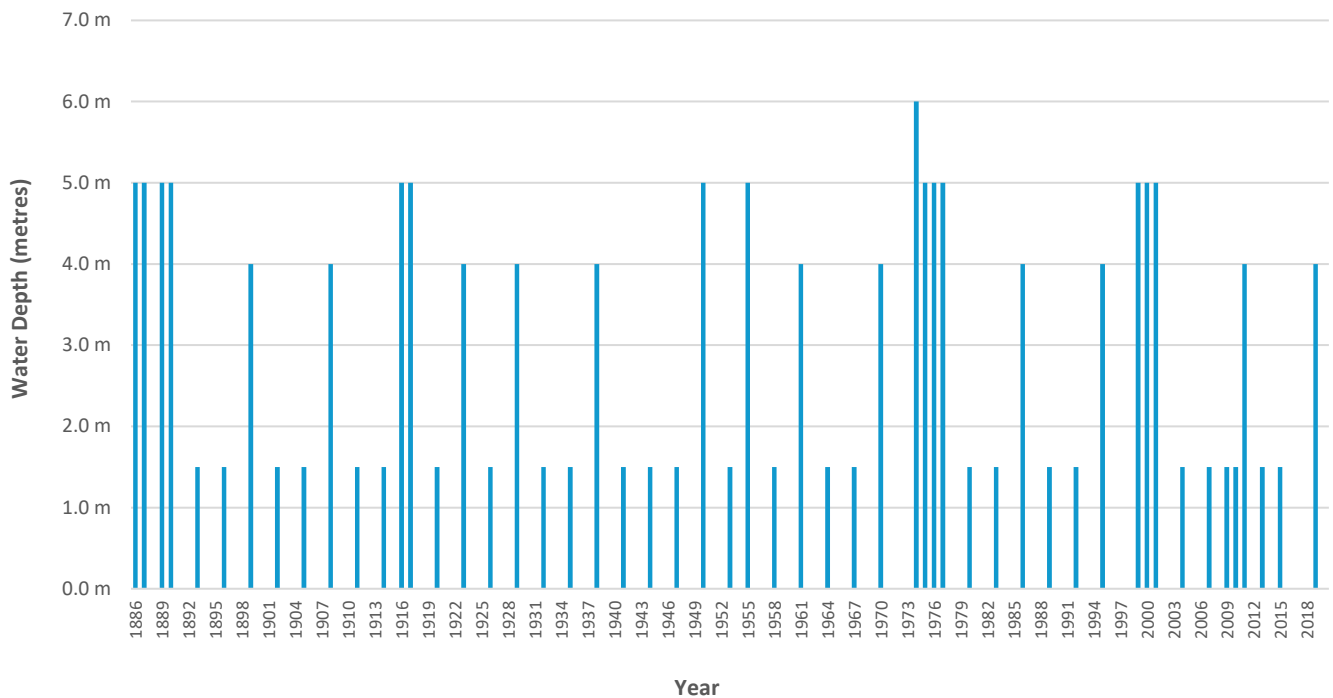
Most recently, Kati-Thanda Lake Eyre has experienced water events as follows:

- 2007 - Torrential rain took about six weeks to reach the lake but only placed a small amount of water into it.
- 2009 - Flooding saw the lake peak at 1.5 metres deep in late May, which is a quarter of its maximum recorded depth of 6 metres.
- 2010 - High rainfall in summer sent flood water into the Diamantina, Georgina and Cooper Creek catchments of the Lake Eyre Basin, with the Cooper Creek reaching the lake for the first time since 1990.
- 2011 - Heavy local rain in early March in the Stuart Creek and Warriner catchments filled Lake Eyre South, with Lake Eyre North about 75 per cent covered with water, firstly from the Neales and Macumba Rivers, and later from the Warburton River.
- 2015 - Water began flowing into Lake Eyre following heavy rain in the north-east of the state.
- 2019 - Floodwaters began arriving in March as a result of torrential rains in northern Queensland in January of that year. The first flooding was closely followed by another surge, following rains produced by Cyclone Trevor.
- In the past, the water had taken anywhere from three to 10 months to reach the lake, but in the 2019 flood, the water arrived in just two months. This flow was not initially thought to be significant enough to fill Lake Eyre as it was not supported by local rain and water flowing in the Cooper Creek to the lake. As it turned out, it was significant enough to flow into Lake Eyre and provide somewhere between 40-60% coverage of the lake (in most places only 5-10 cm deep).

Figure 3 shows the distribution of water events over time according to a number of assumptions:

- A 1.5-metre flood has been included every three years and a 4-metre flood every ten years where other floods have not been reported.
- Fill or near fill events have been included as reported and assumed to be 5 metres deep on average.
- The reported 6-metre highest flood has been included in 1974.

The figure shows that with minor flooding events every three years and substantial events every ten years and given that the latter often persist for a time despite rapid evaporation, the totally dry intervals represent only around 50% to 60% of the time (on average). This means that the challenges and opportunities associated with water events need to be accommodated on an on-going basis rather than as infrequent occurrences.

Figure 3. Lake Eyre Water Events (Water Depth)

Source: RDA Far North with interpretations by SC Lennon and Associates

2.3 Key Factors Influencing Future Water Events

The Climate Council (2017, *Intense Rainfall and Flooding: The influence of Climate Change*) has made the following key points:

- Climate change is influencing all extreme rainfall events. The warmer atmosphere holds more moisture, about 7% more than previously. This increases the risk of heavier downpours.
- Extreme rainfall events are expected to increase in intensity in Australia.
- For Queensland and New South Wales, the two states most adversely affected by ex-Tropical Cyclone Debbie, extreme rainfall events are likely to worsen. For example, maximum one-day rainfall is expected to increase by up to 17% and 18% for New South Wales and Queensland respectively.
- It is critical that communities and emergency services have access to information about rainfall in a changing climate to ensure they can prepare for the future, particularly when rebuilding damaged infrastructure.

The implication is that flooding events in Kati-Thanda Lake Eyre are likely to be more frequent and more significant in the future. According to Jennifer Firn et al (2015, *Protecting Australia's Lake Eyre basin means getting our priorities right, The Conversation*), the basin is already characterised by a highly variable climate and climate change impacts are predicted to increase this variability.

Climate change is also a major concern as it is altering the habitat suitability for many native species and may increase the severity of other threats, such as invasive species. Invasive animals can reproduce and spread quickly, as they are highly adaptable to changing weather and biotic conditions. The combined pressure from climate change and invasive animals will impact on threatened native species already disadvantaged by habitat and environmental conditions.

With more frequent flooding events, tourism is likely to increase in the future. The challenge now is to accommodate this growing demand in an environmentally sustainable manner.

2.4 The Lake's Economic Significance

As described earlier, on the occasions that Kati-Thanda Lake Eyre fills, it is the largest lake in Australia, covering 9,500 square kilometres, making it a nationally and internationally recognised tourism attraction.

The *Kati-Thanda Lake Eyre Economic Analysis* (January 2021) demonstrated that there is a potential 'latent demand' for visitation to Kati-Thanda Lake Eyre, both when the lake is dry and when it is wet. The holiday market is over 600,000 per annum to the Flinders Ranges and Outback Region and 185,000 per annum to the northern parts of the region, with an estimated 46,000 per annum uplift (25%) during water events in the lake.

The economic flow-ons generated from this 25% uplift in visitation are significant, with economic modelling suggesting that, from a direct increase of \$19.5 million, the Outback's total industry value-added would increase by up to \$10.8 million and, after accounting for all direct, supply-chain and consumption effects, this uplift would generate 119 jobs in the region (source: *Kati-Thanda Lake Eyre Economic Analysis*, January 2021).

This is the estimated impact of water events in the current landscape. If investments were made in what can be described as the critical 'enablers of a vibrant visitor economy', that is, the infrastructure and facilities, management and information services and governance arrangements required to manage and promote tourism, a target increase in visitation and associated expenditure above and beyond that generated by water events currently, could be expected.

As a comparative example, it has been demonstrated in other studies that recent commitments to major infrastructure investments such as upgrades to the Strzelecki Track, will serve to enhance the Outback's capacity to accommodate an uplift in tourist numbers throughout the region. In other words, the return on investment in enabling infrastructure, to governments, industry and the communities of the region, is significant.

Even if a conservative 'stretch target' increase of 12.5% above and beyond the currently estimated uplift in visitation to the area was realised (that is, half of the current uplift again), then further economic benefits could be realised in the order of \$5 million in industry value-added (for a total of around \$16 million) and another 60 jobs (for a total of around 180 jobs in the Outback region).

The economic significance of Kati-Thanda Lake Eyre as a catalyst for tourism activity in the local communities and wider Outback region, cannot be overstated.

3. Planning for Water Events at Kati-Thanda Lake Eyre

3.1 Key Challenges to be Addressed

The influx of visitors to the Outback region as a result of a water event is significant. Catering for over 46,000 visitors in a 'wet event' year spending over \$19.5 million also poses some challenges, both in addressing existing issues and in taking advantage of opportunities to develop and grow the local visitor economy.

Consultations undertaken during October 2022 to help inform the preparation of this flood tourism management plan identified a range of issues, challenges and opportunities associated with increased visitation to the communities surrounding Kati-Thanda lake Eyre and through the Outback region.

Key matters concerned the impact of increased and growing visitation on visitor accommodation; transport (particularly the region's road network); telecommunications infrastructure and services shortfalls; marketing, promotion, information management and dissemination; visitor knowledge and safety and the impact on emergency services; waste management and environmental impacts; infrastructure and services management and delivery; town planning and regulatory issues; and governance.

An issue of particular concern is the reliance of authorities on locals, such as station owners to respond to emergency situations. Station owners, business owners and members of the community are called upon to be first responders to emergency beacons being activated, road crashes and breakdowns and even plane crashes. They are expected to provide search, rescue and recovery services. These first responder members of the community can put their own safety at risk and can endure trauma as a result. In some instances, there are considerable out of pocket costs as a result. In many instances the need for a call out is caused by misadventure on the part of visitors to the region.

The full suite of key matters raised and discussed during the consultations are summarised in Appendix A. These issues need to be addressed as a priority if the communities of the Outback, especially those closest to the lake, and the region's key stakeholders and decision-makers are to effectively build capacity to respond to water events of varying magnitude when they occur, and to grow the local visitor economy and wider Outback economy in a sustainable fashion. This requires agreement on and articulation of a shared vision for Kati-Thanda Lake Eyre as a key component of the Outback visitor 'destination'. This, along with the key capacity concerns mentioned above, is addressed below.

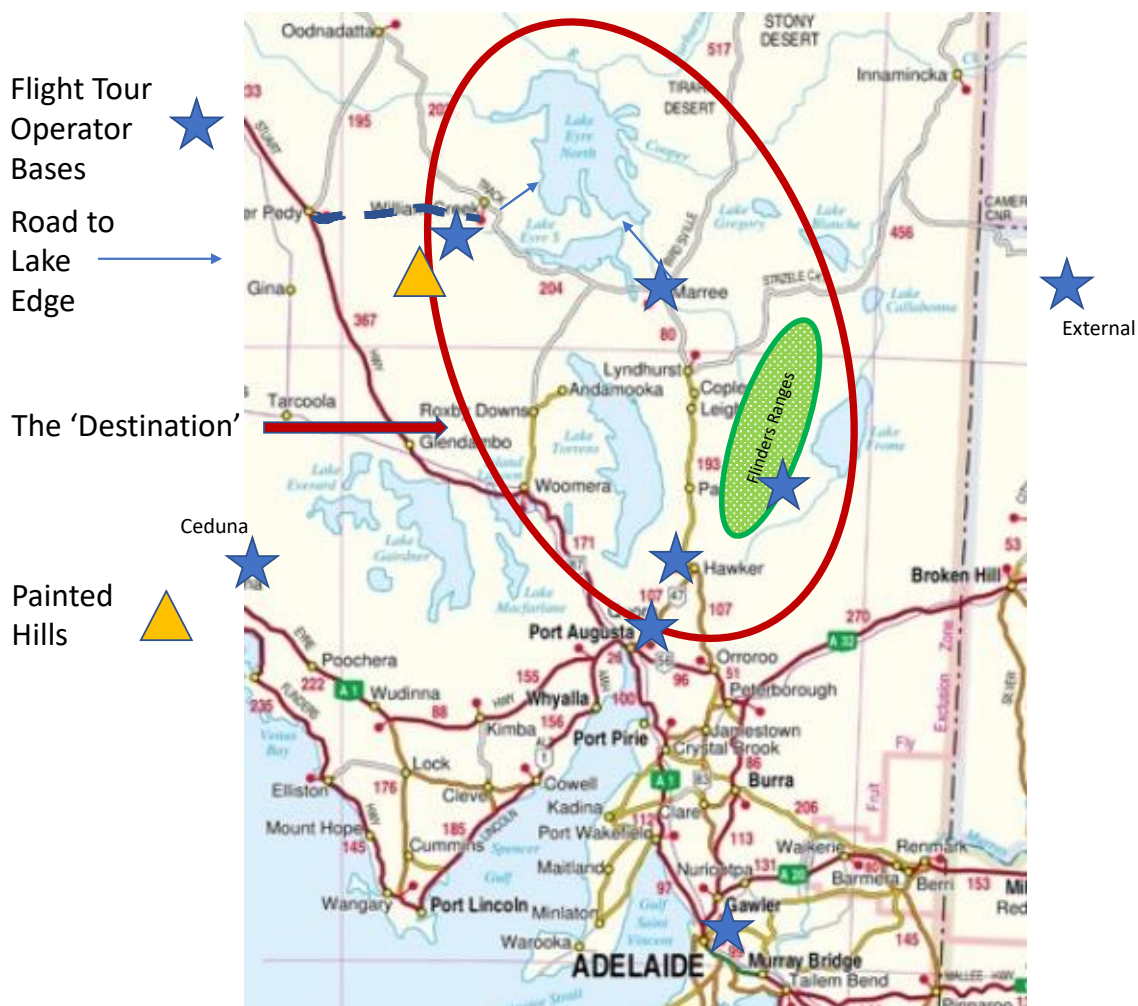
3.2 Establishing the Preferred Vision for the Outback 'Destination'

Based on views expressed by interviewees, the 'destination' that attracts visitors to the Outback region is comprised of a number of features:

- Kati-Thanda Lake Eyre (North and South), especially during flooding events;
- The Flinders Ranges;
- The Painted Hills;
- The history, heritage and stories of the towns and the place including the Outback's First Nations culture, the pioneers, the pastoralists, the cameleers, the railway and communications infrastructure; and
- The 'frontier experience' including challenging 4WD experiences.

The 'destination' as described following the consultations undertaken to inform this plan is depicted in Figure 4.

Figure 4. The Outback Visitor Destination



Source: Compiled by SC Lennon and Associates

Figure 4 shows:

- A delineation of the destination from Hawker in the South to Lake Eyre North in the north and from Roxby Downs in the west to Lake Frome in the east.
- Visitors experience the destination by several means:
 - Fly-in or over from outside locations.
 - Drive or bus in.
 - Drive or bus in and fly over.
- The bases from which flights originate are shown in the figure.
- Driving from the north is via the unsealed Oodnadatta and Birdsville Tracks and via the Strzelecki Track which is currently in the process of being sealed. From the south there is the sealed highway to Marree.
- There are two roads to the edge of the lake – one from William Creek to Halligan Bay Point and one from Marree to Level Post Bay. Both of these roads are under-maintained 'Public Access Roads' (or PARs) located on pastoral leases.
- Beyond the 'destination' as described here are links to other key visitor attractions in the Far North including Coober Pedy to the west (which is also one point of origin for scenic flights over Kati-Thanda Lake Eyre) as well as Oodnadatta to the north-west, Innamincka to the north-east and Birdsville just north of the SA-Queensland border (another point of origin for scenic flights).

‘Business-as-Usual’: the ‘Frontier’ Scenario

It appears that amongst local business operators and tour operators, there are alternative visions for the future of the Outback destination. One school of thought is that it should retain its ‘frontier’ appeal. Roads should not be sealed, although they should be maintained to a safe standard. Issues related to ‘drive tourism’ such as waste dumping need to be addressed, as does the standard of telecommunications infrastructure. Search, rescue and recovery systems need to be improved.

Information for travellers and advice on the hazards of outback travel and how to deal with them is a high priority. There is a case for compelling travellers to take the necessary precautions. There is a need for ‘town plans’ to resolve land use issues, infrastructure issues and amenity in the towns. In this scenario, the supply of accommodation and hospitality services and the operation of tours are matters for business operators to resolve with minimal input from government agencies. Notwithstanding this, there is a case for agencies to be more responsive to local needs and to reduce ‘red tape’.

Planning for Prosperity: the Nationally Significant Outback Tourist Destination Scenario

The second school of thought on the future of the Outback destination is that it should be developed and promoted as one of Australia’s primary tourist attractions. It is suggested that this will involve attending to the existing issues summarised above but in addition, there will be significant investment, from both the public and private sectors in (for example):

- Roads – sealing the Oodnadatta Track, at least from Marree to a sealed road from William Creek to Coober Pedy.
- Upgrade airports to accommodate larger planes with a capacity for more visitors.
- Upgrading the two roads to the lake’s edge to an adequate standard for day trips and tours including bus tours.
- (Eco-accommodation) glamping at Halligan Bay Point.
- Expansion of accommodation and hospitality facilities and services including ‘up-market’ accommodation including eco-lodges or similar.

The findings of the *Kati-Thanda Lake Eyre Economic Analysis* prepared in 2021 provides clear evidence in support of this second scenario, for the benefits it will deliver to the communities surrounding the lake and the wider Outback region. To be realised, this second scenario would require a well-informed, strategic and co-ordinated approach to addressing key infrastructure and services shortfalls as well as the preparation of a destination promotion and management plan for the area.

Kati-Thanda Lake Eyre is a catalyst attraction drawing people to the Outback and is part of a much wider tourism region with potential for further growth and development. In addition to opportunities in the area immediately surrounding Kati-Thanda Lake Eyre, there are under-exploited attractions such as Aroona Dam located just 5 kilometres west of Leigh Creek and the now-abandoned open cut coal mine at Leigh Creek. It is understood the South Australian Government has investigated the potential for shore-based recreational fishing access at Aroona Dam.

There are opportunities around the Lake Eyre Yacht Club, the railway (including World War II history) and the Cameleers as well as agri-tourism, eco-tourism (bird watching), colonial and post-colonial heritage tourism and First Nations cultural tourism.

A strategic and informed approach to promoting and managing visitation to grow the local and regional (Outback) visitor economy in a sustainable fashion is required. Consideration of a Kati-Thanda Lake Eyre and region Destination Management Plan is therefore warranted.

It is argued in favour of the second scenario that there would be significant growth in visitor numbers. Examples to look to include Kakadu and the Bungle Bungles where road access has opened those destinations up to increased visitation. The upgraded roads would be used not only by tourists, but also by mining companies, oil and gas companies, pastoralists and the military.

The Outback region is important for Adelaide's visitor economy too, where fly-in visitors to the region stay their first and last night. It is equally important for The Flinders Ranges where visitors pass through, stopping, staying and spending along the way. This affords the region State significance as a tourist destination.

Kati-Thanda Lake Eyre's national significance as defined by the potential benefits of a concerted and strategic effort to grow the local and wider regional visitor economy cannot be understated. Kati-Thanda Lake Eyre is a unique, iconic natural wonder. It is on a par with Uluru in the Northern Territory, the Twelve Apostles in Victoria and the Great Barrier Reef in Queensland, where a strategic and long-term investment in these iconic attractions of national significance and international renowned, have delivered enormous benefits to their local, regional and State economies.

To ensure Kati-Thanda Lake Eyre fulfils its potential and delivers real economic benefits to the local communities surrounding it, the Outback region and the State of South Australia, it will be necessary to invest in long-term solutions to address key infrastructure pressure points and service delivery shortfalls.

Key matters to be addressed as part of this flood tourism management plan concern the environmental capacity of the Outback to manage uplifts in visitation associated with a water event, as well as sustained growth in visitation to the communities near the lake (and the region more broadly) as the visitor economy grows over time in line with the preferred vision as articulated above.

4. A Plan of Action to Address Environmental Capacity Constraints

This investigations undertaken to inform this report reveals there are a number of capacity issues which constrain the local communities' and wider Outback region's ability to accommodate an increase in visitation on the back of water events at Kati-Thanda Lake Eyre. This includes matters concerning both built and natural environmental capacity, namely:

- Visitor accommodation;
- Transport (roads);
- Waste management;
- Telecommunications;
- Visitor information; and
- Emergency services.

How these matters are addressed strategically will also require local governance matters to be resolved. Each matter is addressed in turn below.

4.1 Visitor Accommodation

The Current Situation

Visitors to Kati-Thanda Lake Eyre arrive either by air from a host of origins, including Marree, William Creek, Port Augusta, Coober Pedy, Birdsville, Wilpena Pound, Broken Hill, Brisbane or Adelaide. Plane operators may touch down at towns or on stations for a 'comfort stop' or they may provide short 'scenic flights' from nearby airports.

Many visitors arrive by road with the major routes being:

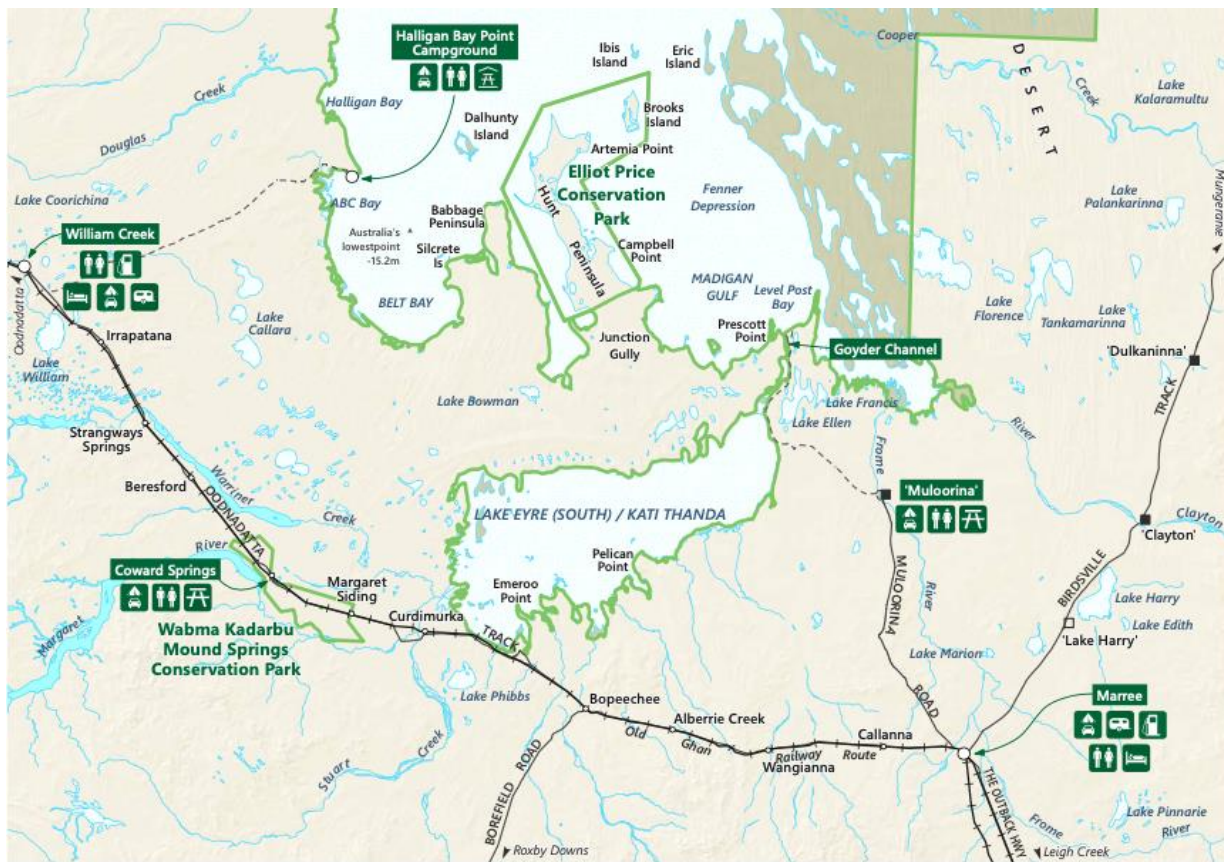
- The sealed road from the south servicing Hawker, Leigh Creek / Copley, Lyndhurst and terminating in Marree. This road may accommodate 2WD vehicles although flooding events can close the road periodically; and
- The unsealed roads from the north including the Oodnadatta Track (servicing William Creek), the Birdsville Track and the Strzelecki Track (currently being sealed). These roads are suitable only for high clearance 4WDs and off-road vans and campers. Rain events can close the road for extended periods. Significant investment in the Strzelecki Track has been made by both the State and Federal Governments. Promoting the Outback destination it serves will consolidate the return on this investment.

A high proportion of visitors arriving by road are self-contained for accommodation in motor homes or they are towing caravans and camper trailers. There is a proportion of campers with tents. Many visitors arrive on bus tours or guided 4WD tours.

The main accommodation towns near Kati-Thanda Lake Eyre are:

- William Creek - hotel, cabins, caravan park and campground.
- Marree - hotel, cabins, caravan park and campground.
- Parachilna - hotel, cabins, caravan park and campground.
- Farina - caravan park and campground.
- Copley - cabins, caravan park and campground.
- Leigh Creek (Resort) - motel, cabins, caravan park and campground.

Figure 5. Key Outback Accommodation Locations



Source: SA Department of Environment and Water

There is high demand for existing accommodation closer to the lake. Further away there is spare capacity. Copley and Leigh Creek receive a lot of flow-through traffic on as visitors make their way to Kati-Thanda Lake Eyre. When Marree is booked out, Leigh Creek and Copley get the overflow of visitors looking for a place to stay. Many of these visitors are in caravans and campervans. Accommodation is also available in more distant locations throughout the region such as Coober Pedy, Hawker and The Flinders Ranges.

Accommodation at the lake itself is restricted to:

- **Halligan Bay Point** accessed from William Creek via 4WD only (60 km away):
 - Provided by Parks and Wildlife Service.
 - Suitable for: tents only.
 - Facilities: long-drop toilets, picnic tables.
 - Campfires: not allowed.
 - Unallocated campground: 20 vehicles maximum.
 - Electricity: unpowered.
 - \$12.50 per vehicle and \$13.50 per night.
 - The road from William Creek is a Public Access Road (PAR). This road is closed from 1st December to 15th March.
- **Level Post Bay** accessed from Marree 4WD only (95 km away):
 - Managed by Parks and Wildlife Service from the edge of the lake (however attendance by rangers is infrequent).
 - No camping.
 - Facilities: nil.

- Campfires: not allowed.
- Camping is available at Muloorina Station (51km from Marree) on the Frome River, a significant wetland.
- Muloorina Station provides toilets and there is a 'honesty box' where campers may make a contribution.
- The road from Marree to Muloorina is a public road and from Muloorina to Level Post Bay it is a Public Access Road (PAR).

Accommodation providers interviewed for this study report that 2022 has seen strong growth in visitation due to the post-COVID effect with more people seeking drive tourism experiences throughout Australia. Towns close to the lake report high occupancy rates in roofed accommodation and in caravan parks, but not to a point where there are shortages. Towns further away such as Leigh Creek report lower occupancy rates.

Accommodation providers are of the view that should there be a major water event on the lake in 2023, demand will increase significantly (e.g. up to 50%) and on the question of accommodation supply, the following views are expressed:

- The main market is the visitors who are self-contained for accommodation – caravaners, camper trailers, campervans, campers and those on tours with tents.
- There is some spare capacity in Marree and William Creek at present.
- Should spare capacity be exceeded, towns further away from the lake can 'take up the slack'.
- Accommodation providers can add more cabins if considered to be commercially viable.
- The point was made that there is land available for more accommodation in Marree.
- An associated issue reported is the high cost of private building certifiers and a lack of availability of State Government building surveyors. This stifles any incentive to invest in new accommodation, whether short-stay, residential or commercial.
- There is a closed caravan park / former caravan park site with cabins in Marree that could potentially be recommissioned.
- As the main market is self-contained for accommodation, an influx of vehicles in busy times damages unsealed surfaces in the towns. In Marree for example, there is a need for more sealed surfaces to accommodate caravans and campervans, particularly during busy periods and in wet weather.
- Compounding this issue, the road to the airstrip in Marree is unsealed, causing problems during wet weather.
- Stations that provide accommodation options can expand capacity if needed.
- Bus tours and 4WD tour operators can bring tents for overnight stays.
- Flight tours can rearrange itineraries to take advantage of alternative accommodation options.

Response Options

The findings of this study suggest that, on the whole, visitor accommodation supply is in line with demand. With any uplift in visitation associated with a water event, the increased demand can be catered for in existing hotel and cabin-style accommodation and self-contained accommodation - caravaners, camper trailers, campervans, campers and those on tours with tents. Should spare capacity be exceeded, towns further away from the lake can accommodate the overflow.

The caravan park / former caravan park site with cabins in Marree could potentially be recommissioned, either by the government, a private operator or under a co-investment model (options would need to be explored and considered for their return on investment).

On the question of commercial viability of investing in more visitor accommodation, whether that be a caravan park or a hotel/motel for example, the obvious issue is the infrequency of water events in the lake and the options for accommodating additional demand as listed above. Any investor, whether private or public, who is contemplating bringing additional accommodation online, would be faced with a situation where the marginal

revenue (averaged over water event periods and non-water event periods) would most likely fall short of marginal cost.

A more viable solution to addressing accommodation shortfalls in the face of a spike in demand when a significant flooding event does occur, is for existing stakeholders to work together through an agreed forum of communication to respond as required. This might be facilitated by RDA Far North in collaboration with local progress associations and other representative organisations. This would include existing accommodation providers, station owners, tour operators and even residents interested in renting out their homes or part of their homes as 'B&B' style accommodation. The first step would be to undertake an audit of existing capacity across these various accommodation categories that can be called upon when needed.

To properly accommodate self-contained travellers in 4WDs, caravans, campervans and trailers, there is an opportunity to better plan the location of facilities, including recreational facilities and stopping bays and turning bays for larger vehicles to avoid or reduce the damaging impact a high volume of vehicles has on surfaces around the towns.

Recommendation

The consultation findings suggest that there is a need for a strong, well-resourced local representative organisation to plan and manage visitation to the region. The genesis of such a local co-ordinating body could stem from a concerted effort to address the region's accommodation needs.

It is recommended that local stakeholders work together to respond to demands for any extra accommodation beyond capacity by seeking formal commitment to a local accommodation register. The first step would be to undertake an audit of existing capacity across these various accommodation categories that can be called upon when needed.

In anticipation of continued growth in visitor numbers to the lake over the coming years, it is recommended that a business case for recommissioning the former caravan site in Marree be undertaken.

4.2 Roads

The Current Situation

The road from the south up to Marree is a sealed road but there are issues relating to flooding events and the road's condition. Flooding events occur frequently, and they can leave vehicles stranded. Travellers without supplies or communication equipment can be in jeopardy. The road was damaged in early 2022 by floods and, at the time of writing (November 2022), it has not yet been repaired.

Unsealed roads such as the Oodnadatta Track (servicing William Creek), the Birdsville Track, the Strzelecki Track and scenic roads traversing the Flinders Ranges can become very hazardous during and after a flooding event. These roads are also particularly hazardous in summer when temperatures are extreme. Motorists without water supplies who break down can perish (and have perished) within a day or two. These roads are closed in the event of rain to prevent damage from vehicles in mud.

It is noted that there is a significant amount of information available on the web relating to the hazards of outback travel. For example Landscape South Australia (<https://www.landscape.sa.gov.au/saal/parks/outback-safety>) provides comprehensive advice within the theme of 'you are responsible for your own safety'.

The Royal Automobile Association of South Australia (RAA) offers 'premium' breakdown and towing services and has reciprocal arrangements with clubs in other states. The base is in Copley and towing limits apply. Towing beyond the limits can be expensive and, given the distances involved, attendance can be delayed. There can also be considerable delays in getting approval to attend or recover from interstate auto clubs. In one instance it was reported that a family was stranded on the road for four days.

The roads into the lake shore (Halligan Bay Point from William Creek and Level Post Bay from Marree) are essentially unmaintained Public Access Roads (PARs) and are suitable only for high clearance 4WD vehicles without towing.

Within towns, there are issues with the extent of the sealing of surfaces. Road verges and other unsealed areas become extremely muddy in rain events causing significant damage.

It is noted that the Department of Infrastructure and Transport defines PARs as follows (https://dit.sa.gov.au/OutbackRoads/outback_road_warnings/special_notices):

PARs are not roads or part of the formal road network. They are unimproved and unsurfaced dirt tracks intended to provide four-wheel drive access in dry conditions only. Conditions such as washouts and corrugations maybe present. Drive to track conditions with caution.

Response Options

In the context of an objective to promote the Outback region as a nationally significant tourist destination, it would be advantageous to provide additional sealed roads. There is a sealed road from the south to Marree and the Flinders Ranges area is served by a sealed road from Hawker to Blinman. The Strzelecki Track is currently being sealed providing access from Queensland. The missing link is from the Northern Territory, and this suggests that sealing the Oodnadatta Track from Marree to William Creek and then the William Creek Road to Coober Pedy, would be advantageous, facilitating increased visitor movements throughout the region.

By sealing these links in the network, the following benefits would ensue:

- Safe 2WD access from all parts of Australia would be provided. This would increase visitation significantly and would reduce the incidence of breakdowns and strandings.
- The incidence of flooding events isolating the region would be reduced.
- The road network would provide a higher level of service to freight movement, the mines and the stations resulting in economic benefits and higher levels of safety.

The benefits of sealing these important road links would therefore be multi-faceted.

Recommendation

It is recommended that a feasibility study / business case be commissioned into the proposal to seal the Oodnadatta Track from Marree to William Creek and then the William Creek Road to Coober Pedy. Pending the outcomes of this work, it is recommended that the proposed sealing of these sections of road be afforded priority status in the Outback region's strategic advocacy efforts.

4.3 Emergency Services

The Current Situation

South Australia is a signatory to the Inter-governmental Agreement on National Search and Rescue Response Arrangements under which the government is responsible for search and rescue in the Outback. There is a levy imposed on properties and vehicle registrations that is paid into the Community Emergency Services Fund. Funding is deployed to a wide range of emergency services including the SA State Emergency Services (SES), the South Australia Police search and rescue functions and the State Rescue Helicopter.

However, despite the existence of these services, reliance on volunteer resources to provide emergency services against a backdrop of poor communications results in critical safety issues for locals and visitors alike. There was a widespread view amongst those consulted that many visitors to Kati-Thanda Lake Eyre and the wider Outback region are ill equipped to deal with emergencies that might arise such as a vehicle breakdown, health issues, being stranded due to floods or becoming lost. It is apparent that a high proportion of visitors do not access or do not heed the advice that is available on web sites or on roadside signs.

The Landscape SA website contains the following key messages:

- Plan your trip and advise others of your itinerary.
- Take adequate water, food and fuel in case of a breakdown.
- Carry two spare tyres.
- Seek advice on road conditions, flooding and fire hazards.
- Carry emergency alert equipment (e.g. satellite phone or a personal locator beacon).
- Subscribe to roadside assistance services.

Locals advise that further to these matters:

- 2WD vehicles and low clearance all-wheel drives should carry at least one spare wheel. Sealant kits and 'limp home' wheels are insufficient.
- 2WD vehicles and low clearance all-wheel drives must stay on bitumen roads.
- 4WD vehicles with high clearance may use all roads but should carry two spare wheels. These vehicles should only tow-accredited off-road vans and trailers. Two spare wheels should be carried for towed vans and trailers.
- Subscribe to roadside assistance services.
- Obtain travel insurance.

The task of search, rescue and recovery often falls to station owners, business operators and other members of the community. Often this is at a significant personal risk to the voluntary first responders not to mention the inconvenience and costs involved. While the voluntary first responders provide an invaluable service there are instances of the system failing. This results in deaths and near-death events. There is a case for better resourcing search, rescue and recovery services.

It is noted that the Outback region is serviced by SA State Emergency Services (SES), which has units located in:

- Andamooka
- Beverley CRT
- Coober Pedy
- Innamincka CRT
- Marla
- Roxby Downs

Operational tasks carried out by the units are:

- General Rescue
- Land Search Operations
- Storm Damage Operations
- Road Crash Rescue

Response Options

With a continuation of the current growth in visitation to the region and the prospect of surges in demand associated with flooding events in the lake, the case for better resourcing search, rescue and recovery services becomes even more pressing.

There are response options on both the demand and supply sides of the equation. On the demand side, there is a need to ensure visitors comply with the rules that are in place to ensure their safety. At present these rules are advisory and often not complied with.

There is a case for a level of compulsion to comply with the rules and this could be achieved via a permit system which may be constructed as follows:

- A permit is required for all vehicles using roads in the Outback region.
- Road traffic regulations are amended accordingly.
- For 2WD and AWD vehicles with low clearance, access would be restricted to sealed roads only (plus designated gravel roads as appropriate). Advice on safety issues and accessing road condition, fire and flood reports would be issued with the permit.
- For 4WD vehicles with high clearance, access to all roads would be permitted subject to applicants attesting to:
 - Carrying adequate water, food and fuel in case of a breakdown or becoming lost.
 - Carrying two spare tyres.
 - Towed vans and trailers being accredited 'off-road' and carrying two spare wheels.
 - Carrying emergency alert equipment. Advice on safety issues and accessing road condition, fire and flood reports would be issued with the permit.
- The need for a permit would be notified on web sites and on signs at strategic locations. Permits would be obtained online.
- Enforcement would be by random police checks with appropriate fines for contraventions levied.

On the supply side the resources of the SES can be expanded with more units in more locations and better resources. While the tasks of search, rescue and recovery would still be largely volunteer based, response would be better organised and responsive to needs. Volunteer effort would be better trained and better resourced and would be better recognised and acknowledged.

Recommendation

It is recommended that the 'Come Prepared, Stay on Track, Keep it Clean and Respect the Outback' Aussie Travel Code campaign (www.aussietravelcode.com.au) developed by the Flinders Ranges and Outback Tourism Committee be more extensively rolled out. This is based on the principles of 'Tread Lightly' and tourists taking more responsibility for their own safety, behaviours and actions. It is recommended that the OCA, with the support of RDA Far North and the Flinders Ranges and Outback Tourism Committee, make representation to the Far North (SA) Zone Emergency Management Committee of the issues surrounding increased visitation into the region and the impact this is likely to have on existing emergency services and the resident population. The intent of the representation is to seek an assurance that these issues are factored into emergency management planning for the far north zone.

4.4 Waste Management

The Current Situation

Waste management issues in the Outback region, and in particular in the communities nearest the lake, include:

- Limited sewerage capacity. In Marree for example, sewerage is based on septic tanks provided by landowners and business operators. Visitors impose significant loads on the capacity of systems a situation exacerbated by the high water table in the town.
- There are no public dump points. In Marree for example, there is one private facility where a charge applies. This creates a potential for illegal dumping on roadsides or in the bush, which is a public health hazard, not to mention an amenity issue. Other towns are similarly affected.
- Biosecurity is an issue, especially with the threat of foot and mouth disease entering Australia. Meat products pose a particular risk and disposal of waste must be carefully managed.

Response Options

It is likely that the issues discovered in Marree are similar to those facing other towns and the issue of illegal dumping along roads affects the whole region. It is noted that other regions in Australia that are recognised tourist destinations are generally well appointed with rest stops, with toilets along roads and dumping points provided at strategic locations. One of the objectives of providing this infrastructure is to reduce the incidence of driver fatigue, in addition to the public health benefits.

Recommendation

It is recommended that the OCA, in partnership with RDA Far North and the Flinders Ranges and Outback Tourism Committee, facilitate a conversation with the Department for Infrastructure and Transport and the Department for Environment and Water with a view to prepare a road network facilities plan to identify locations for rest stops with toilets and with dumping points at strategic locations. Funding can then be sought for implementation in a staged manner beginning with identified priority locations.

4.5 Visitor Information

The Current Situation

Information from local operators suggests that, for Kati-Thanda Lake Eyre tourism to be commercially viable, an event resulting in at least 1.5 metres of water in the lake is required. However, this can mean that visitors' expectations of experiencing in a 'flooding event' are not always necessarily met.

Issues concerning information management and dissemination were raised by a number of those consulted. In particular, there are problems resulting from the perceptions held by visitors / prospective visitors being influenced by selective information posted online by various local stakeholders.

Visitor expectations regarding what constitutes a 'flooding event' need to be addressed to ensure that the tourism experience matches visitor expectations. There is a need to better communicate the history and nature of different types of 'flooding events' in Kati-Thanda Lake Eyre as part of a wider Outback tourism experience.

As noted earlier, there is information available to visitors on the hazards of outback travel, but warnings and advice are often not heeded. This imposes unreasonable responsibilities on locals to perform search, rescue and recovery services.

The South Australia Destinations website provides well-presented and up-to-date information on the attractions of Outback South Australia but stakeholders in the destination region identified above see opportunities for developing a 'brand' for this particular region to elevate it as a nationally recognised tourist destination.

To reiterate, the destination region in question offers the following attractions:

- Kati-Thanda Lake Eyre (North and South), especially during flooding events;
- The Flinders Ranges;
- The Painted Hills;
- The history, heritage and stories of the towns and the place including the Outback's First Nations culture, the pioneers, the pastoralists, the cameleers, the railway and communications infrastructure; and
- The 'frontier experience' including challenging 4WD experiences.

Together, these attractions offer a combined experience that cannot be offered anywhere else in the world.

Response Options

As explained in Section 3 of this report, there are two alternate 'visions' for the Outback visitor destination. The first is to retain the destination's 'frontier' appeal. The second and preferred scenario is that the Outback destination, with Kati-Thanda Lake Eyre as a catalyst attractor, is developed and promoted as one of Australia's primary tourist attractions.

To ensure the lake fulfils its potential and delivers real economic benefits to the local communities surrounding it, as well as the Outback region and the State of South Australia as a whole, it will be necessary to invest in long-term solutions to address key infrastructure pressure points and service delivery shortfalls. This requires strategic planning, beginning with the necessary investigations into priority capacity constraints as articulated in other sections of this action plan.

Investment in a collaborative and co-ordinated approach to visitor information dissemination is key to ensure that consistent, reliable and authoritative information dissemination is coordinated, with the buy-in and support of all stakeholders including local operators. Three key areas need to be addressed: expectations on water in the lake; Outback hazards affecting visitor safety; and branding.

Recommendation

With respect to information about the status of water in the lake, and information designed to inform visitors of various hazards and appropriate safety precautions, there are websites – both publicly-funded and privately-operated, which are well-regarded. A single point of contact / information portal does exist, specifically, the Environment SA website, a publicly funded and authoritative website that is impartial and reliable. It is recommended that key agencies and operators work together in support of a single, authoritative and impartial 'lead' web site as the primary source of visitor information.

As far as marketing the nationally significant Outback tourist destination is concerned, a strategic and informed approach to promoting and managing visitation to grow the local and regional visitor economy in a sustainable fashion is required. The preparation of a *Kati-Thanda Lake Eyre and Region Destination Management Plan* is therefore recommended.

4.6 Telecommunications

The Current Situation

Deficiencies in telecommunications infrastructure and services pose real issues for locals and visitors alike. These issues relate to the ability to do business which has consequences for the economic development of the Outback region and the ability of locals to access education and health services. The situation also creates difficulties in relation to accessing and co-ordinating emergency services. Dealing with government agencies becomes very difficult for some, which has the effect of compounding the level of disadvantage experienced amongst the population.

Response Options

All towns in the region have a 'telecentre', which were established as Rural Transaction Centres with internet enabled networked computers. Telecentres are run by volunteers and are often closed. It is considered that at present, the telecentres are underutilised.

To enhance digital connectivity, these telecentres could be provided with funding for a part-time staff position and upgraded telecommunications infrastructure to allow them to serve as modern communications hubs for their communities and for visitors to the region, including business travellers. With improved communications infrastructure and a staffed position, the telecentres could also serve an important role as non-accredited visitor information centres / hubs. This would help to address some of the other matters raised in this report including the need to ensure visitors are informed of current travelling conditions and safety requirements.

Other options for improving digital connectivity in the region include, for example, installation of a wireless NBN system in Marree and William Creek and investment in low-orbit satellite telecommunications services such as Starlink.

Recommendation

The following recommendations are made:

- That the OCA seek to install public wi-fi services into Outback Communities to support the growing demand for online services and communications.
- Working with RDA Far North and the South Australian Tourism Commission, determine an appropriate delivery model for enhanced visitor information and service provision through the existing tourism business network.
- Investigate telecommunications solutions with a focus on new low-cost technologies. Specifically, engage with both NBN Co. and private service providers to identify both existing and potential alternative solutions (e.g. low-orbit satellite solutions) and work with government through the OCA to advocate for infrastructure funding support.

4.7 Governance

The Current Situation

Views were expressed during the study that systems of governance are less than effective and are perceived to be remote from the area. Some are of the view that there is a lack of 'democracy'. Specific instances that were cited included:

- Road closures that are instigated from Adelaide that are not appropriate to circumstances on the ground.
- Delays in repairing damaged roads and in maintaining sealed and unsealed roads.
- Delays and costs involved in obtaining development approvals are a major impediment to much needed development projects. There is a perception of remoteness of decision-making and administration and a preponderance of 'red tape'.
- Tourist information signs that are designed and located without local consultation and are inappropriately configured as a result.
- Infrastructure projects that 'come out of the blue', such as (for example) recreational equipment in towns. There are opposing views on the priorities and the appropriateness of locations selected.
- There is no effective mechanism for resolving critical issues in the towns such as salination due to a rising water table, waste disposal and treatment and the sealing of surfaces to cater for visitor vehicles in wet and muddy conditions.
- Community based systems of governance such as 'progress associations' are perceived to be deficient in terms of representation.

It is apparent that the towns lack the basic 'town planning' that is the norm in non-outback areas. In this context town planning means a process that, through a consultative means, resolves competing infrastructure and land use issues and produces a 'design' for the town that enhances amenity and liveability.

The Outback Communities Authority (OCA) was established pursuant to the *Outback Communities (Administration & Management) Act 2009* and commenced operations on 1 July 2010. The OCA replaced the Outback Areas Community Development Trust as the management and governance authority for the outback. The OCA has responsibility for the management and local governance of the unincorporated areas of South Australia. The region encompasses 63% of the State of South Australia and is home to approximately 4,500 people who reside in a number of small townships and numerous smaller settlements including pastoral, farming and tourism enterprises.

The OCA comprises seven board members, supported by administrative staff, and is responsible for the effective governance of OCA affairs. The mission for the OCA includes:

- Providing support to outback communities for the provision of public services and facilities.
- Considering long-term requirements for the maintenance, replacement or development of infrastructure for public services and facilities in outback communities.
- Working with all levels of government to plan and deliver appropriate public services to outback communities.
- Regular community consultation to ensure that communities needs and wants are fully understood.
- Advocating on behalf of outback communities at State and national forums.

Since early 2020 the OCA has been considering the future of the Outback through its *Outback Futures* project. Outback Futures is about the long-term and sustainable management and growth of South Australia's outback and considering what it means for its communities from social, economic, environmental and cultural perspectives. The Outback Futures report contends that a greater level of resources is needed by the OCA to meet an increasing demand for services and support in the Outback region, now and into the future as it faces significantly increased visitation.

The OCA is funded through a variety of mechanisms including the Federal and State Governments. In particular, the OCA receives Australian Government funding through the South Australian Local Government Grants Commission to provide local government type services.

Formal funding and service provision arrangements between the OCA and community groups in townships and settlements are made through annual Community Affairs Resourcing and Management (CARM) agreements where communities decide their own priorities for local services and facilities, prepare community plans, and pay for amenities through local fundraising. The OCA provides advice, guidance and funding assistance to support these efforts. On the face of it this system appears to be highly suitable for the task. But there is a widespread view that the OCA is under-resourced to the extent that its effectiveness falls well short of community expectations and needs.

The OCA has committed to identifying those services and initiatives that will make the Outback region an even better place to live, work and visit. The recommendations of the Outback Futures report have been endorsed by the OCA as a means of addressing community aspirations, and in dealing with the large number of issues that require integrated and sustained efforts into the future.

The recommendations of the Outback Futures report suggest an enhanced governance model for the OCA, a financial model based on shared responsibility, and within this, a recommendation that State Government funds those services provided in the Outback that primarily benefit visitors and non-residents who consume them. This recommendation acknowledges the largely unrecognised impact of this sector on a sparse population in an extremely large geographical area.

Response Options

It is apparent that responsibility for most if not all of the shortfalls in governance such as remoteness of decision making and administration, a lack of town planning and a lack of meaningful engagement with the community fall to the OCA, but this organisation is critically under-resourced. There are specific responses that can be considered:

- There is a case that a program of preparing town plans for all settlements and towns would resolve many of the issues concerning the community. The benefits would include more efficient and cost-effective provision of facilities and services and more environmentally sustainable and livable environments. A block of funding will be required, and the town plans would be rolled out by the OCA.
- Agencies making decisions on matters such as road closures and maintenance (and others) should be required to consult locally, and this can be facilitated by the OCA.
- The resourcing of the OCA is a critical issue, and this warrants ongoing investigation into the scope and magnitude of the tasks it must carry out and the resources it will require. This is particularly pressing given the desire to promote the region as a nationally recognised tourist destination and to cater for the uplift in visitation that will ensue.

Recommendation

The following recommendations are made:

- That a program of town plans be rolled out for the settlements and towns and that the program be adequately funded.
- The OCA liaise with agencies that are remotely administering aspects of the area to ensure greater sensitivity and responsiveness to local needs as articulated in the Outback Futures Report <https://www.oca.sa.gov.au/news/latest-news/outback-futures-report/Outback-Futures-Report-December-2021-LR.PDF>.

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Appendix A – Stakeholder Consultation Findings, October 2022

Key matters raised and discussed during the consultations are summarised as follows.

Visitor Accommodation

- There is evidence (as documented in this and previous reports) of exceptional increase in visitation in flood events. It is considered that an appropriate way to describe this is as ‘flood tourism’, as a flood is a significant tourism opportunity throughout the entire Lake Eyre Basin. While Kati-Thanda Lake Eyre has reached its peak following the last major water event, all of the catchments are looking healthy, and another event can be expected to occur in 2023.
- Current visitation is very strong. Markets are ‘fly-in’, ‘bus-in’ and free independent travellers (FITs). Bookings for 2023 are strong. Accommodation is being booked now in anticipation of a significant water event impacting the lake next year. The general trend has seen an increase in visitation to the area over the past few years and this is expected to continue to increase.
- There is high demand for existing accommodation closer to the lake. Further away there is spare capacity. Copley and Leigh Creek receive a lot of flow-through traffic on as visitors make their way to Kati-Thanda Lake Eyre. When Marree is booked out, Leigh Creek and Copley get the overflow of visitors looking for a place to stay. Many of these visitors are in caravans and campervans.

Roads

- People visit the area to see the Lake; they really want to see the water. If Lake Eyre South fills, then there is a lot of traffic flowing through Leigh Creek/Copley. Road conditions are a major issue. There are overly long closures during wet weather and conditions are poor. Long stretches of road are subject to unjustified speed limits for extended periods.
- Unsealed roads need to be closed in wet weather to avoid damage impacting on businesses, industries, residents and visitors. This issue creates some animosity by some locals towards visitors claiming they cause much of the damage.
- Public Access Roads (PARs) to the lake are needed for rescues. However, PARs, which need to be adequately maintained to ensure they are safe, are in poor condition.
- The road to Level Post Bay used to be able to accommodate coaches but now, a 4WD is required.
- PARs are sometimes re-opened by government agencies in Adelaide when locals consider that it is not necessarily appropriate or safe to do so, without consulting local land managers / lease holders. It is considered that road upgrades are required.
- PARs are established under the *Pastoral Land Management and Conservation Act 1989* (PLMC Act) to provide public access over pastoral land without the need for travellers to ask permission from the lessee. Any travel other than that on a public road or PAR requires prior approval from the lessee of the respective pastoral lease.
- The Department of Infrastructure and Transport defines PARs as follows: “PARs are not roads or part of the formal road network. They are unimproved and unsurfaced dirt tracks intended to provide four-wheel drive access in dry conditions only. Conditions such as washouts and corrugations maybe present. Drive to track conditions with caution”.

- The road to Hallagan Bay Point is corrugated, making it difficult for many vehicles to access the Lake. If it was graded, it would be a lot easier to access.
- The two roads to the lake (from William Creek and Marree) are critical for facilitating visitation. Given Lake Eyre's status as a catalyst tourism attractor, this compromises the entire Outback region's capacity to grow the visitor economy.
- There is no public transport (it used to exist).
- There is a need for more co-ordinated Outback roads planning, development, management and maintenance.

Air Transport Infrastructure

- Many visitors drive or bus in to the area and fly over the lake (e.g. from Marree or William Creek, or further afield, from Coober Pedy for example). If airports were upgraded to accommodate larger planes, visitation to the Outback region would increase.
- There is a need to improve airstrips for air charters and self-fly tourists so that higher capacity aircraft can be accommodated. This is considered by some key operators consulted to be a potential 'game-changer' for tourism in the region.

Telecommunications

- Poor mobile phone coverage is cited as an ongoing issue throughout the region. Poor communications infrastructure (mobile phones and web) cause serious problems, particularly relating to safety and emergency management.
- It is noted that Starlink (a commercial satellite service) has proven to be functional for access to the web and this includes a 'moveable' service suitable for travellers.

Marketing & Promotion, Information Management and Dissemination

- Some operators, who have a vested interest in attracting as many visitors to the area as possible, are engaged in what can be described as 'digital competition' with one another. Some websites state that flooding is a 'once in a generation' event, when in reality, it is more frequent.
- Local tourism operators are competing for the same market but providing different information about the status of water events at Kati-Thanda Lake Eyre. This is evident in the information posted on various operators' Facebook pages. It was suggested by a number of those consulted that the Lake Eyre Yacht Club web site is useful.
- It is important that visitors are aware of where to get 'real' updates on the status of the lake. People need to know where to go to get an informed understanding of how water events work and their impact on Kati-Thanda Lake Eyre. A single point of contact / information portal does exist, specifically, the Environment SA website, a publicly funded and authoritative website that is impartial and reliable. There are other websites – both publicly-funded – such as the Bureau of Meteorology - and privately-operated – the Lake Eyre Yacht Club - which are considered impartial and authoritative. Further collaborative work is required to ensure that consistent, reliable and authoritative information dissemination is coordinated, with the buy-in and support of all stakeholders including local operators.

Visitor Knowledge and Safety

- Many visitors get themselves into trouble on the roads coming into the region and at the Lake because they are ill-informed and unprepared – despite warnings and advice available online and on signs. Some visitors have inappropriate vehicles. Some get off the tracks and some wander onto stations.
- A lot of people rely on information posted by National Parks and Wildlife Services, which is considered to be very reliable. If travellers to the area had the right information before they left home, this would help reduce the number of incidences of people getting into trouble. (There is an emergency management committee).
- The South Australian Tourism Commission (SATC) doesn't consult on signs and locations can be inappropriate and therefore, less effective than they might otherwise be.
- Vehicle recovery services (e.g. RAA in Copley) are stretched.
- Emergency services, including search and rescue, are under-resourced and rely on volunteers. The Outback Region is exempt from the emergency services levy.
- Locals including station owners are often called in to assist including responding to Emergency Position Indicating Radio Beacons (EPIRBs) and Personal Locator Beacons (PLBs). Australia's national search and rescue service (AUSAR) calls on flight operators in the area to respond.
- Medical services are insufficient to meet the needs of both locals and travellers through the Outback Region.
- It is noted that these issues relate to the whole of the Outback Region / OCA Region.
- There needs to be an information management and dissemination component addressed as key element of the Event Response Plan. This would help to address the issues associated with people getting into trouble while they are here (e.g. lack of water, flat tyres, no phone coverage, etc.). This would be a precursor to a more detailed longer-term local destination management and marketing plan.

Waste Management Facilities and Environmental Impacts

- There is a need for additional toilets, shelters and facilities for visitors at key destinations. There is a short supply of facilities including dump stations, rest stops and toilets. South Australia is generally not as well-equipped as some other States in this regard. Numerous new rest areas are required at strategic attractions and main road locations, for both safety and convenience for the travelling public.
- The sensitive Kati-Thanda Lake Eyre and Outback environment needs to be managed sustainably to ensure items of historic and natural value are not damaged and are retained for the benefit of future generations.
- There are bio-security issues such as the threat of foot and mouth disease and the possibility of spread via disposed meat products. Camping in creek beds and firewood harvesting create environmental problems.
- Passers-by often ask if they can dump their septic tanks at the Copley Caravan Park, which it does not allow due to a lack of capacity.
- There is a need for more dump stations / drop boxes to accommodate increasing visitor numbers. Strategic locations should be investigated, and a site(s) selected (e.g. along the Oodnadatta Track). Funding support could be sought with the help of a business case.

- Rubbish left by tourists can be an issue; they don't understand the costs of rubbish removal in remote locations.
- There is a need for visitors to understand environmental issues – bio waste and general waste.
- Visitors often don't understand the impact their movements throughout the area have on agriculture. They need to be educated in a constructive way. There is a need for more signage with information explaining what agriculture looks like in the Outback (agri-tourism).

Infrastructure and Services Management and Delivery

- The Outback Communities Authority (OCA) is perceived to be remote from the population and seriously under-resourced.
- While there are no rates charged in recognition of the low level of services provided, there is still underfunding of infrastructure and services.
- Landscape South Australia imposes a levy of \$700 per annum on contiguous property owners. Locals don't see value for the money.
- All towns have a 'telecentre', but they rely on volunteers. The telecentres are often closed.
- People feel the State Government's view is that those who choose to live in the outback must be self-reliant, despite the contribution made to looking after visitors and contributing to the economic development of the State. There is a perception that the attitude of Landscape South Australia is people are responsible for their own safety.

Town Planning and Regulatory Issues

- State planning is in charge, and government personnel are remote from the area. There are housing shortfalls and there is a need to encourage housing development. However, there are issues relating to obtaining building permits, including responsiveness and cost.
- Towns (Marree for example) have 'town planning' issues such as the need for more sealed surfaces to accommodate caravans and campervans, particularly during busy periods and in wet weather.
- There is a demand for more housing in Marree. This is inhibiting growth in the town. The town is shifting in demographic to a "holiday home town" limiting availability of housing for service staff.
- It has been reported that the design of new buildings such as the new clinic, is not in keeping with Marree's 'corrugated iron' architectural heritage. This has the potential to compromise the town's appeal as a visitor destination.
- It has also been reported that private building surveyor costs are very high, discouraging new development.
- There is a need to better plan the location of facilities, including recreational facilities and stopping bays and turning bays for larger vehicles.
- In Marree, the road to the airstrip is unsealed, causing problems during wet weather. This needs to be resolved. A fence around the airstrip in Marree would enhance safety and useability, keeping kangaroos out of harm's way.

- Access to, quality of and the cost of potable water pose ongoing challenges. There is a requirement for expensive desalination of bore water for towns and demand is growing from the mining, petroleum and geothermal industries. There are issues relating to water management and salination impacting on the built and environment and town liveability (there is a need for a pipe through the town).
- There is reportedly little 'democracy', including on the part of the Marree Progress Association, or consultation on town planning and development issues from the government. The State Government owns significant parcels of land, but these are 'locked up'.
- Reliable power supply is an issue and those consulted agree that Marree where power is reliant on a diesel generator needs to be connected to the grid.

Governance

- There is a need for a strong, well-resourced local representative organisation to plan and manage tourism.
- There is not unanimity amongst First Nations groups including on Lake Eyre management and Native Title issues. (Disagreement extends to the naming of the lake).
- The park is co-managed by an advisory committee, comprising members of the Arabunna people and representatives of the South Australian Government.

the 1990s, the number of people in the UK who are employed in the public sector has increased by 1.5 million, from 2.5 million in 1980 to 4 million in 1995. The public sector has also become an important employer of women, with 5.5 million women employed in the public sector in 1995, compared with 4.5 million in 1980. The public sector has also become an important employer of people with disabilities, with 1.5 million people with disabilities employed in the public sector in 1995, compared with 1 million in 1980.

The public sector has also become an important employer of people who are over 50 years of age. In 1995, 1.5 million people over 50 years of age were employed in the public sector, compared with 1 million in 1980. The public sector has also become an important employer of people who are under 25 years of age. In 1995, 1.5 million people under 25 years of age were employed in the public sector, compared with 1 million in 1980.

The public sector has also become an important employer of people who are from ethnic minorities. In 1995, 1.5 million people from ethnic minorities were employed in the public sector, compared with 1 million in 1980. The public sector has also become an important employer of people who are from the Caribbean. In 1995, 1.5 million people from the Caribbean were employed in the public sector, compared with 1 million in 1980.

The public sector has also become an important employer of people who are from the Indian subcontinent. In 1995, 1.5 million people from the Indian subcontinent were employed in the public sector, compared with 1 million in 1980. The public sector has also become an important employer of people who are from Pakistan. In 1995, 1.5 million people from Pakistan were employed in the public sector, compared with 1 million in 1980.

The public sector has also become an important employer of people who are from Bangladesh. In 1995, 1.5 million people from Bangladesh were employed in the public sector, compared with 1 million in 1980. The public sector has also become an important employer of people who are from Africa. In 1995, 1.5 million people from Africa were employed in the public sector, compared with 1 million in 1980.

The public sector has also become an important employer of people who are from Asia. In 1995, 1.5 million people from Asia were employed in the public sector, compared with 1 million in 1980. The public sector has also become an important employer of people who are from the Middle East. In 1995, 1.5 million people from the Middle East were employed in the public sector, compared with 1 million in 1980.

The public sector has also become an important employer of people who are from the Pacific. In 1995, 1.5 million people from the Pacific were employed in the public sector, compared with 1 million in 1980. The public sector has also become an important employer of people who are from the Americas. In 1995, 1.5 million people from the Americas were employed in the public sector, compared with 1 million in 1980.

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