



Lancelin Dunes Economic and Social Impact Report



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1 PREFACE

This report was commissioned by the Save Lancelin Sand Dunes Action Group who formed in 2023 in response to immense **public outrage** about the **continued impact of sand mining on the quality and beauty of Lancelin's iconic sand dunes**. The aim of this report was to quantify the value of the sand dunes to the local community economically and socially.

While gathering the evidence and data to support this business case, it became apparent that there is an **astonishing lack of appreciation and awareness by local and state government** of the dunes' unique **value as a tourism resource of State significance**.

Traffic data collected by the Shire of Gingin at the entrance to the sand dunes indicates with high confidence that over **200,000 people visit the sand dunes annually**. This puts the Lancelin sand dunes on par with the Pinnacles for visitor numbers, yet the dunes receive no international or national tourism advertising from the State government, very limited promotion within the State; there is no 'Sand Dunes Discovery Centre', no toilets, a rudimentary car park and **locals have had to make their own directional signage using old pallets to guide tourists to the dune entrance**.

Two reports prepared for the State government by the Wheatbelt Development Commission make little or no reference to the importance of the sand dunes as a tourist asset. One such report does not even mention the dunes at all and another, solely tourism focused report, lists the dunes as a second tier tourist attraction alongside Dryandra Woodlands near Narrogin.

Meanwhile, this hugely popular but under-recognised tourism drawcard is being mined at the rate of over 350,000 tonnes a year (on average) and is **almost entirely covered by mining tenements** – valued by the government only for the lime sand the dunes can deliver to farmers - **though there are multiple alternative sites and alternative products** that may be more cost effective for farmers.

This report clearly shows that the value of tourism in Lancelin's dunes, as a sustainable and scalable industry, exceeds that of mining by at least \$120 million over the next 20 years.

In the longer term, this figure will be much larger still while the revenue and jobs from mining cease to exist, whereas tourism revenue will continue as long as the sand dunes remain.



"Similar visitor numbers, vastly different facilities. Photo comparison of Pinnacles vs Lancelin dunes."

2 EXECUTIVE SUMMARY

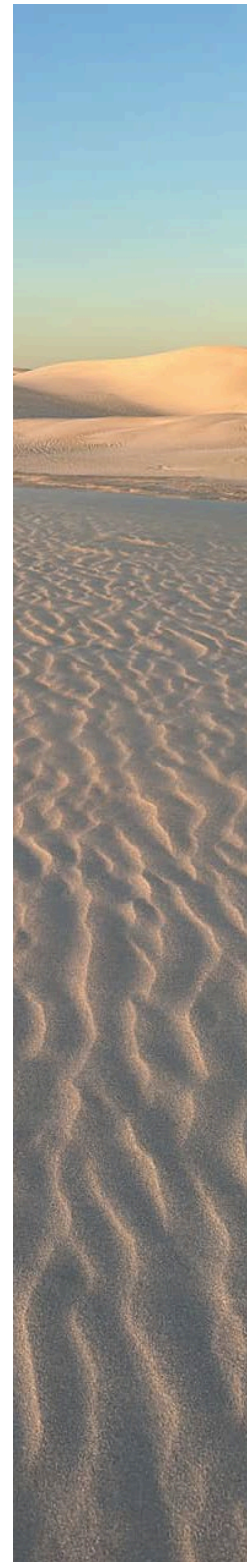
2.1 Context

Lancelin is a coastal community located in the Shire of Gingin 127 km north of Perth. The town has become a household name in Perth thanks to its natural resources, the most famous of which is arguably its iconic white sand dunes. Unlike most other towns in the Shire of Gingin, **Lancelin has a significant tourism industry** generating almost **half of the Shire's total tourism employment numbers**¹.

The town's **pristine waters and sand dune areas** are ideal for land and water-based **adventure tourism activities** including sand boarding, offroad driving, water sports and fishing. It is estimated that the sand dunes alone attracted around **200,000 day trips**² in 2023 including people who came to sand board, drive or ride motorbikes through them and photograph or film the amazing vistas of pure white sand and turquoise bay and island views. Tourism Council WA estimates the Lancelin had **84,096 overnight visitors** in 2022.

Comparatively over the same period, the Pinnacles received 250,000 visitors, putting the dunes on par with one of the State's most famous tourist attractions in terms of visitor numbers. The dunes offer sustainable and scalable tourism opportunities, including 4WD, sandboarding or site-specific event **experiences unlike any other in the state**, in addition to being a beautiful natural phenomenon to witness.

In recent years, **conflicting uses of the Lancelin sand dunes** has been raised as an **urgent issue by the community**. Agricultural lime sand mining extracted an average **350,000 tonnes of mobile sand each year**³. **Impacts of mining** are becoming **increasingly noticeable** and its impact on other sand dunes uses has become an **immediate concern for the local community and businesses** that rely on the Dunes.



¹ See Figure 6.

² Based on traffic counter data at the entrance to LORVA section of the dunes

³ See section 7

2.2 Key Messages

In developing this report, it is evident that there is **a lack of awareness and recognition of the importance of the sand dunes (in terms of visitor numbers) as a tourist attraction** at all levels of government including the Shire of Gingin, Wheatbelt Development Commission or WA State.

Multiple reports detailing economic and tourist development opportunities either **do not mention the sand dunes at all or rate it as a second-tier tourist attraction**⁴.

This lack of recognition would explain the community perception that **the State government has failed to take seriously their calls to address this issue** and develop a resolution that ensures the sand dunes will be protected as a West Australian natural asset for the future.

While preparing this report, no research or data that could be used to indicate the tipping point at which sand extraction will irreversibly impact the size and scale of the sand dunes area used by tourists has been located. Anecdotally, it has been suggested that this point may have already been reached as **long-term residents and visitors to the dunes indicate an already noticeable decline in height of the main dune**. In the absence of any reliable data, it is also the contention of this report that **allowing mining to continue could result in significant costs and disbenefits to the regional community and economy**.

Although it was not the remit of this report to investigate alternative sources of lime sand or alternatives to lime sand, it is noted in Section 4 of this report that multiple nearby alternate sources of lime sand have been identified as future geohazards requiring management, and a range of existing alternatives to lime sand (that are used around the world in the myriad locations that have no available lime sand) have not been adequately explored.

2.3 Economic Contribution

To provide an economic argument to retain the dunes, this report investigated the economic contributions of the two primary dunes-supported industries Agricultural Lime Sand Mining (section 7) and Tourism (section 6). **Tourism is crucial for the local and regional economies**, contributing an estimated **145 FTE jobs and \$10 million in direct gross value add** each year. Comparatively Sand Mining only supports 11 FTE jobs and \$3.4 million in direct gross value add (Figure 1). In other words, **tourism contributes almost three times as much to local economy and provides sustainable and complex employment opportunities**. Furthermore, tourism is a strategic export sector meaning it's a potential source of foreign exchange earnings, which grow Australia's national output. The **Lancelin**

⁴ See Section 4.

tourism sector plays a **crucial role** in the context of tourism employment in the Shire of Gingin. Based on 2021 ABS employment data **approximately half (47%) of accommodation jobs in the Shire are in Lancelin.**

Figure 1. Summary of Dune Tourism vs Dune Mining

Indicator	Lancelin Tourism	Lancelin Sand Mining
Direct Gross Value Add (GVA)	\$10,000,000	\$3,400,000
20-Year NPV of Direct GVA	\$116,000,000	\$36,400,000
Respective per annum rates	150,000 - 200,000 Dune Visitors	200,000 – 400,000 tonnes extracted per
Direct Full Time Jobs (FTE)	145 jobs	11 jobs
Nature of Industry	Sustainable, Scalable, and knowledge-complex industry ⁵	Finite Resource and not knowledge-complex industry
Government Recognition	Not Recognised as a strategic tourism resource	Recognised as a strategic agricultural resource
Local Importance	Key employer and driver of local wealth	Minimal local wealth creation

Source: Pracsys 2024

2.4 Options Assessment

Three options for the future of the Lancelin sand dunes were discussed in this report (see section 8).

1. Do nothing / status quo
2. Cease mining in Lancelin dunes, mine elsewhere
3. Cease mining in Lancelin dunes, mine elsewhere, leverage dunes to expand Lancelin tourism

These options have been summarised below through their economic contribution over a 20-year period (Figure 2). Compared to doing nothing (Option 1), protecting the dunes (option 2) will ensure 1,303 more jobs (82% increase), and \$32.7 million more in GVA (39% increase) for Lancelin (Figure 2).

⁵ Knowledge industries are those industries that are based on their intensive use of technology and/or human capital.

By not only protecting the dunes but also supporting the growth of the Lancelin tourism industry (Option 3) it could generate 5,809 FTE jobs in 20 years and \$208.4 million in GVA due to the enhanced tourism sector (Figure 13). Compared to Option 1 this is a 250% increase in GVA and a 365% increase in jobs, for Option 2 there is a 179% increase in GVA and a 200% increase in employment (Figure 2).

Figure 2. Option Comparison over 20 years

	Option 1 – Status Quo	Option 2 – Halt Mining, Protect Tourism	Option 3 – Halt Mining, Expand Tourism
Total Employment	1,598 FTE jobs	2,900 FTE jobs	5,809 FTE jobs
Total GVA	\$83.4 million	\$116.1 million	\$208.4 million

Source: Pracsys 2024

Based on these projections it is therefore the **recommendation of this report that a serious discourse with all stakeholders is commenced urgently to develop a plan that supports the agricultural lime supply chain while avoiding the projected financial and social costs of continued mining.**

2.5 Conclusion

The Lancelin Sand Dunes are a **globally unique environment** that capture the **essence of the Swan Coastal Plains** environment at their most **grand and breathtaking**. This landscape has allowed for high



levels of **diversity and endemism of flora and fauna** to exist in WA for thousands of years and it is **our responsibility to ensure that future generations can experience them.**

There remains the opportunity to enable this environmental protection while also allowing for profitable industry to occur, but action must be taken now to allow this.

By allowing the **continuation of lime sand mining** at the Lancelin dunes the State government advances towards an **inevitable annual trade-off of \$6.6 million or \$81.7 million over 20 years.** By acting now, the Shire and State government can **preserve this asset to create value for the local, regional, and state economy and communities.** This not only aligns with the desires of residents but will align with Diversify WA goals of developing regional tourism.

The Shire of Gingin and State government still have time to **make a proactive choice** relating to the conflicting use of the dunes. We can choose to allow the degradation of a globally unique landmark to generate short term profits and accept the foreseeable economic and social impacts this will have for the greater community, or **we can preserve this landmark** and **allow** for a **sustainable industry** to remain, or flourish if the right support is given.

3 INTRODUCTION

3.1 Background

Lancelin is a coastal town of 786⁶ people in the Shire of Gingin, 127 km north of Perth. Originally a camping area turned fishing village in the 1940s and 1950s, Lancelin has become known for its abundance of crayfish, water sports and iconic sand dunes. Like many wheatbelt communities, Lancelin relies on a mixture of agriculture, mining, and construction to generate local employment, but unlike many other towns in this region, Lancelin also has a significant tourism industry.

Its attractions include pristine beaches, water sports and the Lancelin dunes. The dunes offer 4WD and sandboarding experiences unlike any other in the state, in addition to being a beautiful natural phenomenon to witness. Visitation is strong year-round, with peaks during the school holidays in the December to February period, and Easter.

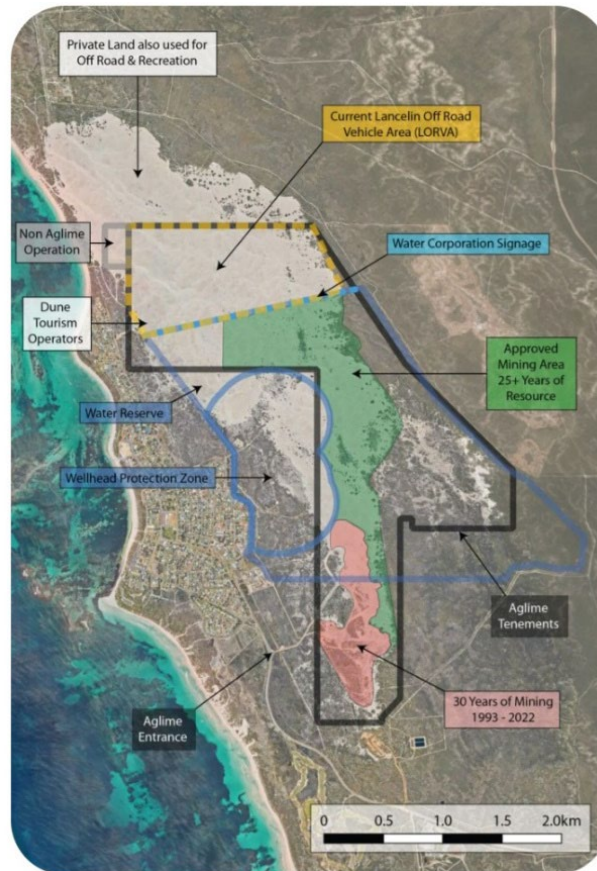
Unfortunately, the dunes have strategic importance as a source of agricultural lime, which is incompatible with their long-term existence and a serious concern to the local community⁷. Mining of the dunes was originally approved in 1985 at 2,000 tonnes per year for two years. As of 2020, the state approved a 25-year lease, with Aglime reporting an average of 200,000 – 400,000 tonnes extracted per annum⁸. Importantly, this approved extraction area abuts the LORVA, where tourism occurs, and the wellhead protection zone, that filters groundwater used by residents (Figure 3).

Residents are concerned that this recent approval has not considered how mining is impacting the surrounding land uses and believe that mining within this lease period will affect dune-related tourism and the long-term amenity and place value that the dunes generate. Despite promotion as a destination on multiple WA tourism websites, the dunes and Lancelin itself have not been recognised by the Shire or Northern Growth Corridor Jobs and Economic Outlook 2050 as an existing or future area for tourism. The disconnect between community outlook, local and State policy is causing significant community unrest. Urgent discourse is required between residents, local businesses, the sand mining industry and State government to generate a strategic plan to manage mining of lime sand in a way that minimises impacts on the agricultural lime supply chain while preserving the long-term future of Lancelin tourism.

⁶ Based on Abs 2021 data

⁷ <https://www.abc.net.au/news/2023-01-27/lancelin-iconic-wa-sand-dunes-threatened-by-lime-sand-mining/101622082>

⁸ <https://www.aglime.com.au/why-aglime/aglime-and-lancelin/>

Figure 3. Lancelin Dune Lease

Source: Aglime 2020

3.2 Purpose

This document explores the issues highlighted above to identify and quantify the costs and benefits of each use. Given that the dunes generate significant tourism business for Lancelin and the surrounding region, it is important to understand the future growth possibilities that could be compromised if sand mining continues in the dunes. Further, this document explores strategies that leverage and promote other sources of tourism in the area including multiple nearby nature reserves, adventure tourism from water sports and fishing and food-based tourism from local food suppliers. By protecting and promoting infrastructure development around the Lancelin dunes, both the local and State governments can achieve their desired economic diversification goals, enhancing a unique tourist destination while protecting a unique and beautiful ecosystem for future generations. The document also briefly explores existing literature and evidence around alternative lime sand and liming options to initiate the conversation on alternate solutions for WA soil acidity and support the view that cessation of mining activities in the Lancelin dunes does not have to be at the detriment of the agricultural industry.

4 LOCAL CONTEXT

4.1 Demographics

Lancelin contains a high proportion of older Australians with median resident age of 52 compared to the State and national median of 38. Around half (51.9%) of these residents are actively participating in the labour force, less than the WA average which is 63.9%. In 2021 main industries of employment for Lancelin and the surrounding area were Agriculture, Forestry and Fishing (30.9% / 197 jobs), Mining (9.7% / 62 jobs) and Accommodation and Food Services (9.4% / 60 jobs)⁹. This economic snapshot reflects one of the key emerging issues for the area, balancing conflicting land uses to ensure the best outcome from both community and strategic aspects.

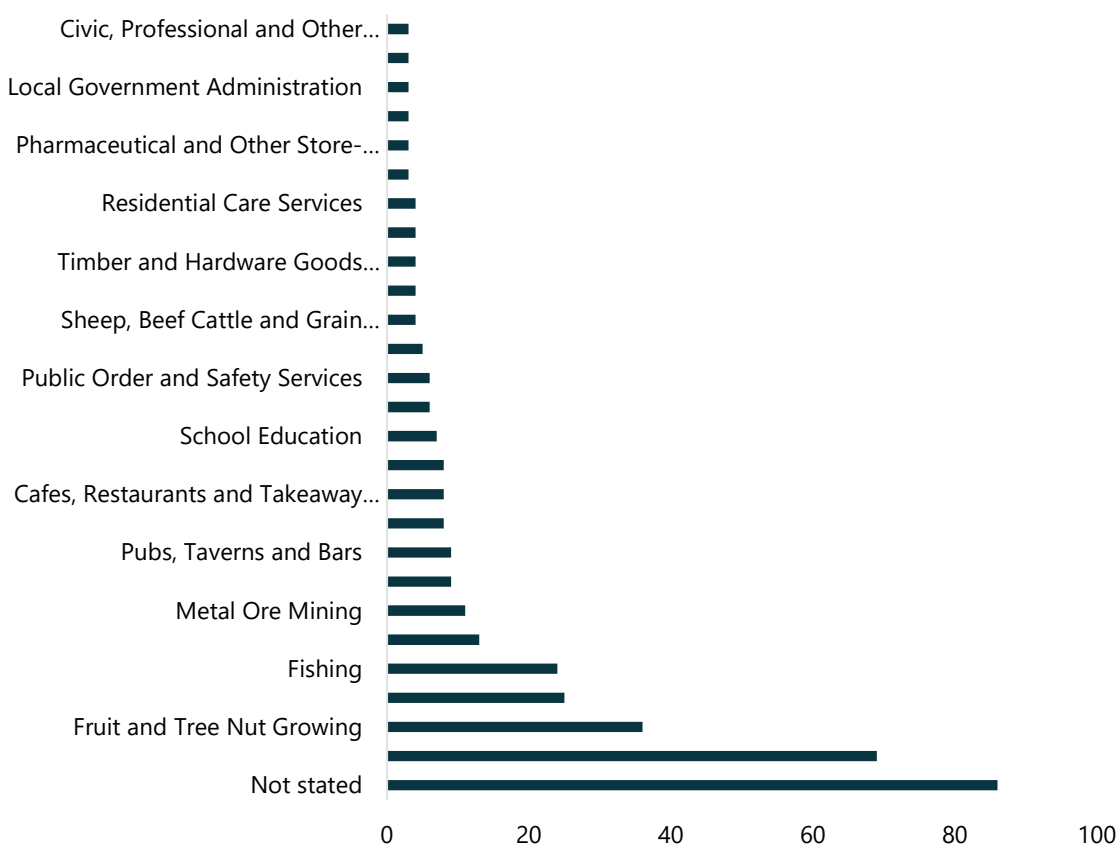
4.2 Employment

As of 2021 the top industries of employment for people living in Lancelin were Mushroom and Vegetable Growing (69 jobs), Fruit and Tree nut growing (36 jobs) and Accommodation (25 jobs) (Figure 4).



"Experience Lancelin Holiday Park is one of the town's most popular accommodation providers, with almost 38,000 sleep nights occupied and 18 FTE jobs created. An example of what can be achieved by tapping into Lancelin's tourism potential."

⁹ Economy.id. (2023). *Lancelin – Upper-Coast Community Profile*.

Figure 4. Lancelin Resident Employment

Source: ABS 2021, Pracsys 2024

Lancelin has been indicated as a subregional centre for Gingin¹⁰ with a long-term future potential population of 12,000 people. It is currently the second largest township within the entire Shire, with only 65 fewer residents than Gingin itself however this number is buoyed by overnight visitors to the town which numbered almost 35,000 in 2023¹¹.

Given Lancelin's emerging regional importance, ensuring there are sustainable and long-term employment opportunities for current and future residents is important.

4.3 Shire of Gingin

As of 2021 there were 5,576 residents¹² within the Shire of Gingin (ABS, 2021). Shire of Gingin residents tend to be older with a median age of 50, like the nearby Shires of Dandaragan (51 years) and Chittering (44 years). Gingin Shire's largest age cohort is 65–69-year-olds, which make up 9% of the total resident population, compared to 35–39% in the Greater Perth region⁷. The major local centre for the Shire is

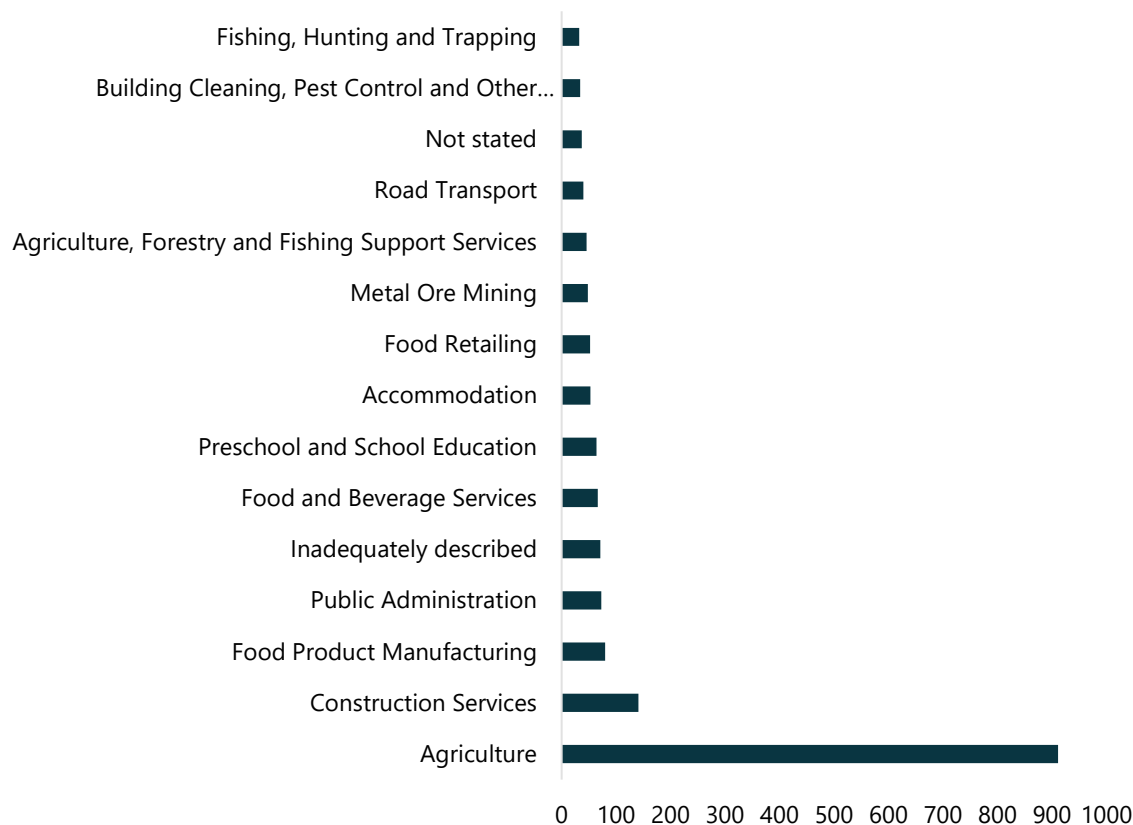
¹⁰ Wheatbelt Development Commission. (2022). *Northern Growth Corridor Discussion Paper*

¹¹ Tourism Western Australia data.

¹² ABS 2021

the town of Gingin, however only 851 people live within this township as most the Shire's population lives with the surrounding rural areas. Most jobs were in Agriculture (911 jobs or 41.9%), Construction Services (141 jobs or 6.5%) and Food Production Manufacturing (80 jobs or 3.7%) (Figure 5).

Figure 5. Top 15 Industries of Employment Shire of Gingin



Source: ABS 2021, Pracsys 2024

4.4 Environmental Context

Western Australia is one of only 18 tropical marine biodiversity hotspots in the world (EPA WA, 2023). Our local ecosystems range from rainforests, savanna woodlands, grasslands, shrublands, heathlands, tall forests and woodlands. An integral aspect of the WA landscape that enables such a diverse array of ecosystems are the wide range of soil types. Many areas of the south-west of the state are characterised by soils with sandy surfaces ranging from deep sands to sands over clays, and soils dominated by ironstone gravels¹³.

Lancelin falls into the most northern part of the Swan Coastal Plain Biogeographic (IBRA) region.¹⁴ The Lancelin sand dunes are part of the Quindalup dune system, one of a series of dune systems in the Swan

¹³ Department of Primary Industries and Regional Development. (2023). *Identifying WA soils*

¹⁴ Department of Parks and Wildlife. (2014). *Indian Ocean Drive Biodiversity Assessment – Flora and Vegetation*

Coastal Plains that also includes the Spearwood dunes and the Bassendean dunes. The soils of the Quindalup Dune System, Cottesloe and Karrakatta soil associations and the Bassendean Dune system are termed 'aeolian'. Aeolian soils are deposited on the coast by the ocean and then transported by the wind to form dunes. The Quindalup dunes, being the furthestmost west are the youngest at approximately 0 to 7,000 years, while the Bassendean dunes are the oldest at approximately 118,000 to 225,000 years¹⁵. Importantly, a study by the Royal Society of Western Australia¹⁶ that stated that there were no dunes of this kind protected in the area at all, emphasizing their uniqueness and need for government intervention.

The coastal vegetation on the Quindalup dunes forms a gradient of communities from the beach/foredunes, through young to older dunes with pockets of exposed limestone, low woodland, and wet depressions. The dunes, many of which are unstable, provide sheltered areas where the vegetation occurs as thickets. This coastal dune system supports several endemic flora and fauna and has been identified as a priority 3 risk by the WA state government¹⁴.

As of 2014 it was reported that much of this area's nature reserves were under researched and reflect another gap in government understanding of the region:

*"The spatial summary indicated that the footprint of mapped vegetation represented about 30% of the core study area. Maps were often linearly configured and for this reason did not adequately capture or interpret the true extent of the vegetation units represented. There are considerable gaps in vegetation data interpreted as mapped units along the coast between Guilderton and Cervantes. These gaps would be partly filled if Nilgen and Nambung Nature Reserves (NR) and the Jurien Defence Training Area were mapped. Only two Nature Reserves within the study area (Southern Beekeepers and Wanagarren) have been mapped."*¹⁴

¹⁵ APACE WA. (2019). Quindalup Vegetation Complex

¹⁶ Royal Society of Western Australia, 1989, the Quindalup Dunes: the regional system, physical framework and vegetation habitats

5 POLICY AND STRATEGIC CONTEXT

5.1 Shire of Gingin Strategic and Community Plan 2022/32

The Strategic Community Plan provides the Shire of Gingin Administration/Council, shire residents, and other stakeholders, with a clear understanding of priority issues and aspirations for the Shire of Gingin and provides guidance on how to achieve those aspirations.

Aspirations & Strategic Objectives

Attractions & Economy - Actively Pursue Tourism and Economic Development

Connections and Wellbeing - Grow and Nurture Community Connectedness and Wellbeing

Planning and sustainability – Plan for Future Generations

Excellence & Accountability – Deliver Quality Leadership and Business Expertise



This document references the known community desire to protect coastal dune systems and preserve endangered habitats and coastal reserves generally. Furthermore, it also references community desire to improve tourism in the Shire and promote local sea and farm produce. More specifically the document also references the immense amenity that the shire receives from the dune 4WD and fishing that occurs in Lancelin. This strategy also references the Shire's desire to mitigate the increasing costs of aging/unused infrastructure, which may indicate the need to position infrastructure supporting the dune's amenity under a different organisation.

Ensuring the Lancelin dunes are retained so that the current level of tourism is maintained will support the current level of economic diversity in the region and tourism with continue to expose Lancelin and the region to potential investors and ideas. Protecting these uses would ensure a sustainable industry continue compared to mining which is unsustainable. Furthermore, by protecting the dunes the Shire will be responding to the desires of the Lancelin community. If the Shire were to utilise dune-based tourism as a catalyst to grow other tourism uses and supporting industries, it will enhance economic development and sustainability planning impacts.

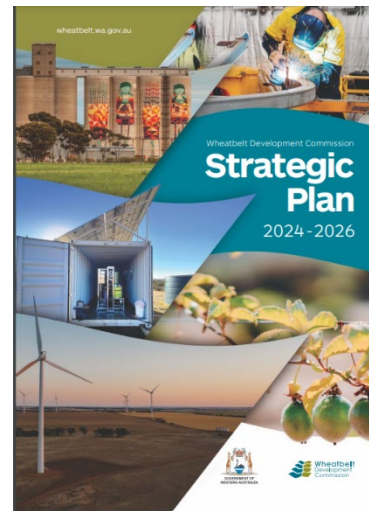
5.2 Wheatbelt Development Commission Strategic Plan 2024/26

The Wheatbelt Development Commission's (WDC) Strategic Plan 2024-2026 provides the framework for the economic development of the Wheatbelt region at this important time and brings to the fore the value of the Regional Development Commissions in providing leadership to facilitate regional economic development.

Strategic Themes and Initiatives

1. Grow existing, and find and develop new industries
2. Enhance regional living standards
3. Increase Aboriginal participation in the regional economy

Protection of the Lancelin dunes for future non-mining uses including recreation and tourism will allow for the existing tourism industry to be maintained, with immense potential to grow tourism and supporting industries. Additionally, protecting the dunes for residents and the groundwater filtration will ensure regional living standards are not reduced.



5.3 DJTSI Future State: Accelerating Diversify WA 2023

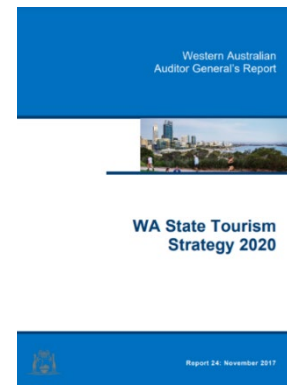
Building on the Diversify WA economic framework, Future State focuses on the most significant opportunities to drive international investment to support WA's economy. Tourism is identified as one of 8 industries to stimulate diversification. It expands on regional tourism destinations and national park-based tourism as a significant method to generate regional jobs.

This is relevant for supporting the Lancelin dunes and tourism more broadly given it abuts a national park in an area of significant biodiversity with multiple endemic flora and fauna. Furthermore, it is an underdeveloped tourism region that can be grown with infrastructure development in the dunes, park and along the coast.



5.4 Western Australia State Tourism Strategy 2020

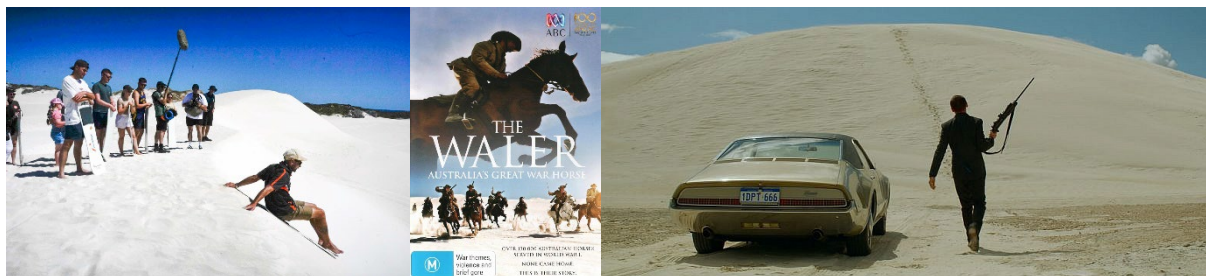
The *State Government Strategy for Tourism in Western Australia 2020*¹⁷ (WA 2020) strategy is WA's response to the national Tourism 2020 strategy. It sets the direction for the WA tourism industry and examines how the Government can work with industry to benefit from growth in business travel and international markets while encouraging further development and diversification in the regions. The WA 2020 strategy identifies seven strategic pillars and associated 2020 outcomes. The following pillars and outcomes are relevant to the introduction of additional facilities at the sand dunes:



1. **Brand** – 2020 outcome: Firmly establish the Experience Extraordinary brand
2. **Asian Markets** – 2020 outcome: Grow WA's share of high-yield Asian markets
3. **Events** – 2020 outcome: Position WA as a recognised events destination for locals and visitors
4. **Infrastructure** – To support growth: Hotels, aviation, workforce
5. **Regional Travel** – Increase the visitors to regional WA

The Lancelin dunes reflect a unique coastal ecosystem that is globally unique and naturally breathtaking. Ensuring this ecosystem can be accessed aligns with the "Experience Extraordinary" brand focus on biodiversity and WA's incredible natural environment. The dunes themselves can be utilised for light shows, film making, adventure sports events, concerts and many other possibilities. With further investment it is likely that visitor numbers will continue to grow, and the Asian tourist market is ideally placed to contribute to this growth.

Furthermore, with the increase in international screen production in WA, the Sand Dunes will be a unique, iconic and easily accessible film location that will attract more productions.



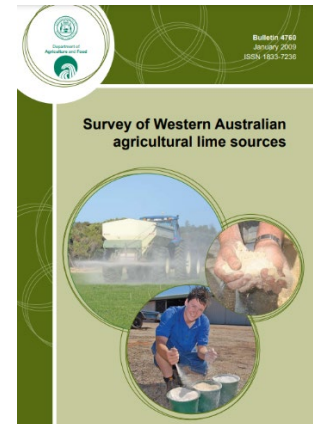
"Lancelin has been used as a backdrop in countless movies and photoshoots due to its scenic, desert and moonlike landscapes and easily accessibility to the metro area."

¹⁷ Tourism WA, 2011, 'State Government Strategy for Tourism in Western Australia 2020': <http://www.tourism.wa.gov.au/Publications%20Library/About%20Us/State%20Government%20Strategy%20for%20Tourism%20in%20WA%202020%20-%20Strategy%20at%20a%20Glance.pdf>

5.5 Survey Western Australian Agricultural Lime Sources (2009)

The *Survey of Western Australian Agricultural Lime Sources (2009)*¹⁸ is a study of agricultural lime availability and quality to aid the management of WA lime supply chains. It sampled operational agricultural lime pits in the South-West of Australia to understand their quality, inclusion in the survey was voluntary by pit owners.

This document is relevant given it showcases the absence of a recent or at all available State Lime Strategy and highlights the gap in the State's understanding of agricultural lime sources which is relevant to the process of approving Aglime's current lease. Furthermore, this study indicates that there is an abundance of Lime alternatives available.



¹⁸ Department of Agriculture and Food, 2009

6 LANCELIN TOURISM

Lancelin is a significant tourism location in the Western Australia tourism landscape, with an estimated 84,096 guest nights¹⁹ and 150,000-200,000 daytime visitors to the sand dunes²⁰. Lancelin is an appealing and dynamic tourism location that offers a diverse array of activities and sites of natural beauty for visitors to appreciate. Located at the start of the much-promoted Indian Ocean Drive within the Experience Perth tourism region and the gateway to the Coral Coast, Lancelin sits on the shores of a large bay, adjacent to two small island sanctuaries and is flanked on the east and north side by extensive sand dunes. Lancelin has ideal conditions for water sports including surfing, wind and kite surfing, swimming, diving and snorkelling, a coveted range of fish species for anglers and the hugely popular sand dunes. Unfortunately, there are concerning shortfalls in recognition and support of this tourism industry from the Shire of Gingin, WDC and from recently developed online assets for Tourism WA's Walking on A Dream campaign, including websites for the Coral Coast²¹. Investment is required in public infrastructure particularly to support recreational dune uses, including trails and information on the surrounding nature reserves to increase the viability of these tourist attractions.

"Over 400 4WD enthusiasts gathered in Lancelin to set a new world record for the largest number of vehicles in a 4WD convoy."



Source: Kym Illman and Lancelin.com.au

¹⁹ Provided by Evan Hall at Tourism Council WA, 2023 – Based on total nights sold for the 2022 period.

²⁰ Based on traffic counting data at the entrance to the LORVA section of the dunes coming off Beacon Rd between June and November 2023

²¹ Based on a desktop analysis of relevant Tourism Western Australia online resources, including www.australiascoralcoast.com

6.1 Economic Contribution

To understand the nature and scale of the existing tourism industry in Lancelin, the Save Lancelin Dunes Action Group has gathered data from local accommodation operations and Tourism Council WA to quantify the impact of this industry. Major accommodation operators supplied bed-nights sold for the 2022 period which totalled 46,720 nights. These operators include Experience Lancelin Holiday Park, Country Values Real Estate, YHA Lodge, Lancelin Sands Hotel and Lancelin Beach Breaks. This estimate excludes the Lancelin North End Caravan Park and any private Airbnb's not managed by the two known local agents. Tourism Council WA estimates 84,096 overnight visitors, \$28 million in direct tourist expenditure, 145 direct full-time equivalent jobs and \$10 million in gross value add generated in Lancelin by these overnight visitors (Figure 6).

Day visits to the Lancelin dunes are estimated at around 150,000 – 200,000²² annually, which compares favourably to the Pinnacles estimated 250,000 visitors²³ which is the most well-known tourist attraction in the area.

To understand the comparative significance of Lancelin's tourism the whole of the Shire of Dandaragan has been used as a reference point. Although a smaller shire than Gingin, their tourism industry is broader and better developed so provides a useful benchmark. For the 2018 – 2019 period, tourism represented 9% of Dandaragan's local economy and 3rd largest industry for the Shire²⁴. Tourism expenditure was \$96.2 million and generated 422 direct jobs. Lancelin's tourism is about one third the size of the Shire's entire tourism industry. Furthermore, 59% of Dandaragan visitors were from the Perth region, which supports the understanding that Lancelin is a viable day-trip location for people living in Perth (Figure 6).

²² Based on traffic counter data at the entrance to LORVA section of the dunes

²³ Pinnacles Visitors Centre, <https://www.visitpinnaclescountry.com.au/about/the-pinnacles>

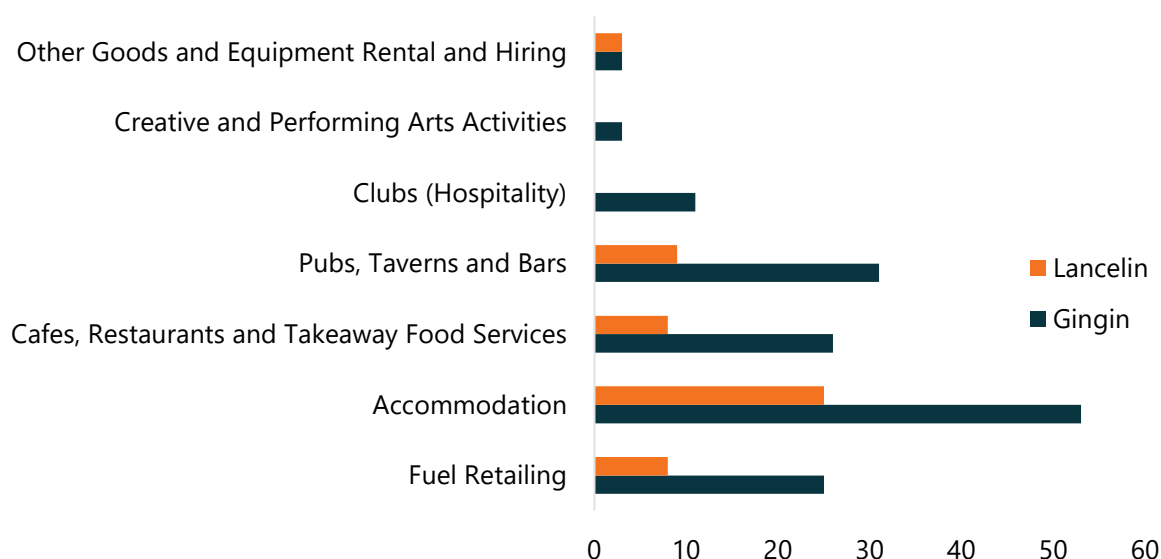
²⁴ Shire of Dandaragan, Economic and Tourism Development Strategy 2020-2029

Figure 6. Lancelin Tourism Indicators

Indicator	Lancelin	Dandaragan ¹⁷
Available Rooms	208 Caravan park 38 Hotel/Motel/YHA 91 Holiday homes	407 Caravan park 273 Hotel/Motel 107 Holiday homes
Room Nights Occupied	46,720 nights	142,765 nights
Overnight Visitors	84,096 people	176,000 people
Daytime Visitors	150,000 – 200,000 Dune specific visitors	203,000 visitors
Direct Full Time Equivalent Jobs (FTE)	145 Jobs	580 direct and indirect jobs
Indirect Full Time Equivalent Jobs (FTE)	53 Jobs	
Direct Tourism Expenditure	\$28.5 million	\$96.2 million
Direct Gross Value Added (GVA)	\$10 million	NA
20-Year NPV of Direct GVA	\$116.1 million	NA

Source: Tourism Council Western Australia 2023, Tourism WA 2022 and 2023, Pracsys 2023

The Lancelin tourism sector plays a crucial role in the context of tourism employment in the Shire of Gingin. Based on 2021 ABS employment data approximately half (47%) of accommodation jobs in the Shire are in Lancelin. Furthermore, about a third of employment for Fuel Retailing (32%), Cafes, Restaurants and Takeaway Food Services (31%) and Pubs, Taverns and Bars (29%) occurred in Lancelin (Figure 7).

Figure 7. Shire of Gingin vs Lancelin Tourism Employment

Source: ABS 2021, Pracsys 2024

6.2 SWOT of Recreational and Tourism Uses for the Dunes

Strengths	Weaknesses	Threats	Opportunities
<p>They attract between 150,000–200,000 visitors a year.</p> <p>No similar experiences that are a daytrip from Perth.</p> <p>Unique experience at a state, national and even global level.</p> <p>The Lancelin dune is not migrating into the</p>	<p>Dune based tourism can lead to injury, especially with quad bikes and motorbiking.</p> <p>The Shire of Gingin does not appear to want to manage the dunes²⁶</p> <p>There is a lack of public infrastructure</p>	<p>Lack of understanding of the current tourism value of the sand dunes.</p> <p>Mining is the greatest threat to recreational and tourism use of the dunes.</p> <p>Insufficient local Government and State support for alternate dune uses.</p>	<p>DLGSC is increasing support for the WA film industry. Lancelin dunes and the surrounding area are a perfect location with unique and stunning vistas. Can lead to better global and national recognition for Lancelin/Gingin area.</p> <p>Dune tourism can be</p>

²⁶ <https://www.abc.net.au/news/2022-07-12/lancelin-sand-dunes-accidents-shire-of-gingin-wants-wagovt-help/101230632>



<p>town or into any major roads/infrastructure.²⁵</p> <p>It supports an array of activities that appeal to a broad number of tourists.</p> <p>This use of the dunes supports a number of complementary uses like local food and beverage, accommodation and equipment hiring to name the most obvious.</p> <p>Tourism is a strategic export sector. It is a potential source of foreign exchange earnings, meaning it grows Australia’s national output.</p>	<p>supporting the Lancelin dunes.</p>		<p>used strategically to develop and promote other sources of tourism in Lancelin. Growing the industry to create greater diversity in the Gingin economy.</p> <p>Dunes management and promotion could be transferred to a purpose formed not-for-profit community organisation. Similar to the Busselton Jetty, which is managed by Busselton Jetty Inc. a NFP community organisation.²⁷</p>
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Source: Pracsys 2024

²⁵ Department of Mines and Petroleum. (2017). *Migration of Limesand dunes in Western Australia and their impacts*,
²⁷<https://www.busseltonjetty.com.au/the-jetty/busselton-jetty-inc/#:~:text=Formed%20in%20October%201987%20as,Jetty%20for%20over%2035%20years.>

7 LANCELIN LIME SAND INDUSTRY

7.1 Background

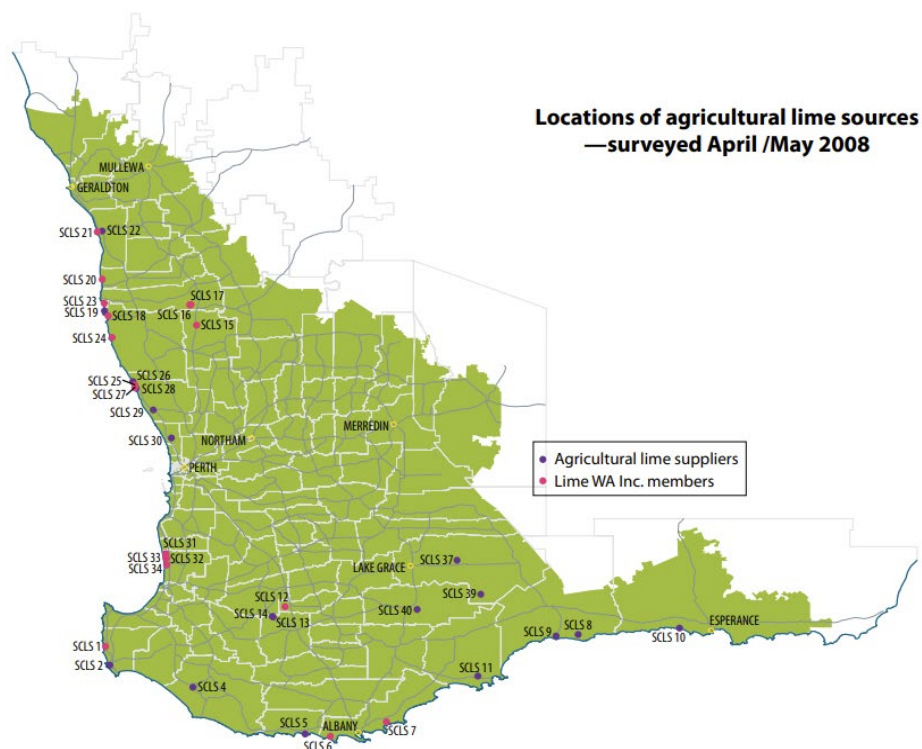
The Lancelin dunes are a source of lime sand for WA agriculture, which is a cost-effective way to manage soil acidity, and can be found naturally as lime sand, limestone, dolomite and chalk lime in the South-West of Australia. The wheatbelt supplies a majority of the lime sand required by WA farmers each year,²⁸ this is largely due to the abundance of high-quality lime sources between Perth and Geraldton. A 2008 survey of agricultural lime sources was able to engage with 37 of these lime pits, across multiple types of lime product, while also indicating more like sources remained in the area, the map below reflects the active lime sources in 2008²¹ (Figure 8). Importantly lime sand is not the only type of lime that can be utilised to resolve soil acidity, for example in NSW Lime rock is more commonly utilised and soil acidity reducing farming practices encouraged.²⁹ Lime sand is in highest demand over a 10-to-12-week period from February to April, between harvesting and seeding. Farmers spread lime sand on their paddocks to neutralise acidic soils and boost cropping yields. The Lancelin dunes mining lease is held by Aglime, which also has lime sand leases in Cervantes, Jurien and Dongara.



“The impacts of lime sand mining on Lancelin’s dunes are unmistakably evident as it approaches the boundary of the LORVA.”

²⁸ Department of Agriculture and Food. (2009). *Survey of Western Australian agricultural lime sources*

²⁹ NSW Department of Primary Industries. 4th Edition (2021). *Soil Acidity and Liming*. 4th Edition

Figure 8. South-West Australian Agricultural Lime Sources

Source: Department of Agriculture and Food 2009

7.2 Historical Context

Mining at the Lancelin dunes started in 1985 when regulators took a cautious approach to the new industry and approved the mining of 2,000 tonnes of sand over two years, before allowing 20,000 tonnes to be extracted across five years in 1987. This approval was updated in 1992 to allow the extraction of up to 40,000 tonnes over five years. Since the early 2000's extraction limits have been removed a decision that was made without any community consultation, apparent regard for alternative uses of the sand dunes or understanding of how removal of the dunes to the south of the LORVA will impact the ongoing viability of that area.

Under the current approval granted in 2020 Aglime have been approved to extract sand all the way to the southern boundary of the LORVA. Aglime reported their 15-year average extraction rate between 2008 to 2022 is 333,000 tonnes per annum³⁰.

³⁰ Source, <https://www.aglime.com.au/why-aglime/aglime-and-lancelin/>

There is also a smaller mining permit of 20,000 tonnes per annum approved on the north-west corner of the sand dunes which is accessed directly through the tourist area. This is owned by a small, private farmers cooperative and is not sold on the open market.

7.3 Economic Contribution

Figure 9. Economic Contributions of Lancelin Lime Sand Mining

Indicator	Value
Direct Full Time Equivalent Jobs (FTE) ³¹	11 jobs
Average Income ³²	\$105,015
Direct Gross Value Add (GVA) ³³	\$3.4 million
20 Year NPV ³⁴	\$36.4 million

Source: ABS 2021, Pracsys 2023

Figure 10. SWOT Mining the Dunes

Strengths	Weaknesses	Threats	Opportunities
<p>Large supply of high-quality lime sand.</p> <p>Does not require processing, thus making it very cost competitive.</p> <p>There is existing and sufficient infrastructure to access these dunes.</p>	<p>Dune access/exit can be limited by increased traffic over holiday weekend periods.</p> <p>This dune does not require processing to become usable, hence generates a limited number of jobs.</p>	<p>Future conflict with LORVA and general uses of the Dunes.</p> <p>Loss of community support and social licence to operate</p>	<p>At the current rate of extraction there is a chance to begin developing alternate lime sources to replace the Lancelin dunes without impacting overall supply</p>

³¹ ABS. (2021). *POR Lancelin, INDP, Mineral Sand Mining*

³² ABS. (2021). *INCP for Mineral Sand Mining Gingin LGA*

³³ Derived from National Multipliers for Non-Ferrous Metal Ore Mining Activities

³⁴ Discounted at a rate of 7%



	<p>This is a finite industry that will only generate jobs up to the point that lime sand is diminished.</p> <p>The impact of dune mining on the local environment, by exposing nearby grey dunes, and on local ground water are currently unknown. Meaning that mining could generate additional costs in the future.</p> <p>Agricultural lime sand is not an exporting sector. Meaning it does not increase Australia’s national output.</p>		
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Source: Pracsys 2024

8 OPTIONS ANALYSIS

The analysis considered three options to address the problems and opportunities presented. The options are:

4. Do nothing / status quo
5. Protect the dunes, mine elsewhere
6. Protect the dunes, mine elsewhere, leverage dunes to expand Lancelin tourism

8.1 Option 1 – Status quo

Continue to extract lime from the Lancelin dunes with no volume limit on the current 21-year lease granted in 2020. Lack of volume limit and gap in understanding on how different levels of extraction will impact other dune uses, surrounding ecosystems and ground water supply means there will be an increasing risk of mining generating unexpected costs and disbenefits to the direct and surrounding communities.³⁵

Option 1 assumes that tourism GVA and employment will slowly decline from their current values (see Figure 6) until non-existent in the 20th year. Mining employment and GVA remain constant in each year. Please note that jobs for each year are counted as distinct values. Given these assumptions, option 1 will result in 1,598 FTE jobs over 20 years, and a NPV of \$83.4 million in GVA from mining and the reducing tourism sector (Figure 11).

Figure 11. Option 1 – 20-year Direct Employment and GVA

Indicator	Value
Direct Employment Year 1	149 FTE jobs
Direct Employment Year 20	11 FTE jobs
Total Direct Employment over 20 years	1,598 FTE jobs
GVA Year 1	\$11.8 million
GVA Year 20	\$1.4 million
NPV of GVA over 20 Years	\$83.4 million

Source: Pracsys 2024

³⁵ As at 29/2/2024 no data or research into impacts of sand mining on ground water quality, environment or replenishment of sand dunes in the LORVA has been located.

8.2 Option 2 – Protect the dunes, mine elsewhere

Mining of the Lancelin dunes is halted immediately or at the earliest possible timepoint agreed upon by community, local and State governments and Aglime. LORVA uses are allowed to continue or expanded organically.

Option 2 assumes that mining will be halted in the first year thus will not contribute any employment or GVA to Lancelin. Tourism employment and GVA remains a constant in line with current values. Given these assumptions, option 2 will result in 2,900 FTE jobs over 20 years, and a NPV of \$116.1 million in GVA from the current Lancelin tourism industry (Figure 12). Compared to Option 1 this option will generate 1,303 more jobs (82% increase), and \$32.7 million more in GVA (39% increase) for Lancelin.

Figure 12. Option 2 – 20-year Direct Employment and GVA

Indicator	Value
Direct Employment Year 1	145 jobs
Direct Employment Year 20	145 jobs
Total Direct Employment over 20 years	2,900 FTE jobs
GVA Year 1	\$10.9 million
GVA Year 20	\$10.9 million
NPV of GVA over 20 Years	\$116.1 million

Source: Pracsys 2024

8.3 Option 3 – Protect the dunes, mine elsewhere, leverage dunes to expand tourism

Mining of the Lancelin dunes is halted immediately or at the earliest possible timepoint agreed upon by community, local and State governments and Aglime. LORVA uses are allowed to continue and are expanded with State and local government support to support and develop Lancelin based tourism. This could involve promoting visitation and investment into the Lancelin dunes as well as developing other sources of tourism in the Lancelin area (see Appendix A – Underdeveloped Tourism Sources).

Option 3 assumes that mining will be halted in the first year thus will not contribute any employment or GVA to Lancelin. Tourism employment and GVA will start at the current values and increase over 20 years until employment and GVA are aligned with the Dandaragan benchmark (see Figure 6). Therefore in the 20th year direct tourism employment is 422 FTE and GVA is \$31.9 million. Given these assumptions, option 3 will generate 5,809 FTE jobs in 20 years and \$208.4 million in GVA due to the enhanced tourism

sector (Figure 13). Compared to Option 1 this is a 250% increase in GVA and a 365% increase in jobs, for Option 2 there is a 179% increase in GVA and a 200% increase in employment.

Please note that option 3 proposes one example to showcase the extent to which Lancelin tourism could expand. Any decision to support further tourism growth its nature should be determined through further discussion between residents, businesses, state & local governments and other relevant stakeholders.

Figure 13. Option 3 – 20-year Direct Employment and GVA

Indicator	Value
Direct Employment in Year 1	145 FTE Jobs
Direct Employment in Year 20	422 FTE jobs
Total Direct Employment over 20 years	5,809 FTE jobs
GVA Year 1	\$12 million
GVA Year 20	\$31.9 million
NPV of GVA over 20 Years	\$208.4 million

Source: Pracsys 2024

8.4 Options Assessment

The analysis assessed the three options against specific criteria developed to measure each option's ability to address the problems that have been presented as well as the option's ability to capitalise on proposed opportunities (Figure 14). The criteria have been developed based primarily on the Shire of Gingin Strategic and Community Plan.

Scores range from 1 – very poor, 3 - Alright to 5 – very good.

Figure 14. Multi-Criteria Analysis

Criteria	Option 1	Option 2	Option 3
Maintain current local employment	2 In the immediate future this will not impact local employment, however it will eventually cannibalise Dune tourism	3 Local mining employment will be lost; however, compared to option 1 this will retain a greater level of employment	4 With appropriate initiatives, jobs lost from mining can be replaced by additional tourism-related employment
Generate additional local employment	1 Mining alone is unlikely to expand in scale and there are no downward supply linkages that can be sourced locally like manufacturing.	3 Halting mining is likely to generate attention to Lancelin and which may indirectly bring greater interest and investment into tourism local infrastructure and businesses	5 Increasing Lancelin tourism sources will allow for increased investment and expansion of tourism related businesses both in Lancelin and the surrounding Gingin area
Diversify the local and regional economy	2 Maintaining mining will cannibalise other businesses, negatively impacting the diversity of the economy	3 The existing tourism industry is a more diverse industry than the mining alone, with more complex supply chains and a wider range of jobs involved.	5 Expanding the tourism industry will support niche products and services to become established, enhancing economic diversity
Protect the environment	1 Mining the dunes has the greatest risks to the surrounding environment, altering the protected environments adjacent to the dunes that contain a multitude of endemic species	4 Tourism will always pose a slight risk to the surrounding environment, however with correct planning and management this can be mitigated. Least	3 Greater tourism is likely to increase the risk of potential damages to the environment, however with correct planning and management this can be mitigated.

Criteria	Option 1	Option 2	Option 3
		damaging of the three options.	
Retain dunes for future generations, create legacy	1 Although the timeframe is uncertain, mining the dunes currently poses greatest direct risk for dune retention	3 Mining is currently the greatest threat to dune retention; halting mining removes this threat	5 Mining is currently the greatest threat to dune retention; halting mining removes this threat.
Listen to the local community	2 This would go against the local Lancelin community desires, although would support private industry and some farmers desires.	5 Save the dunes is a community led initiative with widespread support within the town.	4 Save the dunes is a community led initiative with widespread support within the town. Understanding tourism expansion requires more consultation
Total	7	21	26

Source: Pracsys 2024

9 CONCLUSION

The Lancelin dunes are not only an iconic landmark but an important economic, environmental, and cultural asset for Lancelin residents and the Shire of Gingin at large. Generating around 200,000 daytime visitors and 84,096 overnight visitors it is a significant tourism destination, nearing the well-known Pinnacles in yearly visitors, that deserves better support from the Shire and State governments. These visitors form the basis of a tourism industry that currently generates 145 full-time equivalent jobs and an annual GVA of \$10 million or \$116.1 million valued over 20 years. Comparatively, lime sand mining only employs 11 people within the town of Lancelin, with an annual GVA of \$3.4 million or \$36.4 million over 20-years.

The Shire and Gingin and State government still have time to make a proactive choice relating to the conflicting use of the dunes. They can choose to allow the degradation of a globally unique landmark to generate short term profits and accept the foreseeable economic and social impacts this will have for the greater community, or they can preserve this landmark and allow for a sustainable industry to remain, or flourish if the right support is given.

The GVA and employment for each of these options have been calculated and provided below (Figure 15).

Figure 15. Option Comparison over 20 years

	Option 1 – Status Quo	Option 2 – Halt Mining, Protect Tourism	Option 3 – Halt Mining, Expand Tourism
Total Employment	1,598 FTE jobs	2,900 FTE jobs	5,809 FTE jobs
Total GVA	\$83.4 million	\$116.1 million	\$208.4 million

Source: Pracsys 2024

By allowing the continuation of lime sand mining at the Lancelin dunes the State government advances towards an inevitable annual trade-off of \$6.6 million or \$81.7 million over 20 years. By acting now, the Shire and State government can preserve this asset to create more value for the local, regional and state economy. This not only aligns with the desires of residents but will align with Diversify WA goals of developing regional tourism.



10 APPENDIX A – UNDERDEVELOPED TOURISM SOURCES

Why develop other sources of tourism?

To support further investment in Lancelin tourism, other underdeveloped sources of tourism in and around Lancelin have been provided below. It is the position of this report that the dunes can be utilised strategically to increase awareness of and visitation to these alternate tourist attractions to further increase overall tourism activity in the area. Subsequently, increased visitors will increase tourism spend in the area and could allow for the agglomeration economies of tourism industries in the Lancelin area.

Agglomerated economies

Agglomerated economics refers to the economic benefits such as reduced costs of production that arise due to a decrease in transport and communication distances for all companies in the area. There is also an increase in the transfer of knowledge and innovation within agglomerated workers and businesses, a larger supply of labour, improved infrastructure, and access to a larger market of consumers. In other words, agglomerated industries are generally more efficient, dynamic and resilient than a dispersed industry cluster.

Components of agglomeration economies:

- Forward linkages – to supplier
- Backward linkages – to consumer
- Knowledge spillovers – due to increase in transfer of knowledge and innovation
- Labour pooling – concentrations of suitably qualified- and trained labour to support the human resource input needs of clusters.




Agglomeration economies may have wider benefits for society and the economic development of a city or region. The concept is also related to economies of scale, which are internal to a company but affected by supply chains, nearby companies, and government regulation.




Leads to increased employment:

- Multiplier effect
- Quality of employment
- Exports
- Knowledge-Intensives Products & Services (KIPS)
- High productivity


10.1.1 Nature-based tourism

Nature-based tourism, a term that encapsulates a broad range of activities and experiences, revolves around tourists engaging with and appreciating natural environments. This form of tourism is not merely about the passive observation of nature but often involves active participation in environments that are either wholly natural or have been minimally impacted by human intervention. The key attractions in nature-based tourism are features like landscapes, flora and fauna, and geological formations, among others. These nature reserves are part of a unique biodiverse hotspot that contains several endemic species found nowhere else in the world.

Location	Description
<p data-bbox="363 786 628 819">Nilgen Nature Reserve</p> 	<p data-bbox="810 786 1385 925">A coastal nature reserve directly north of the Lancelin dunes, with a white sandy beach & sand dunes backed by wildflower heathland.</p> <p data-bbox="810 954 986 987">Opportunities</p> <ul data-bbox="858 1014 1270 1153" style="list-style-type: none"> • Lacking walking or hiking trails • Lacking bike trails • Lacking online resources
<p data-bbox="341 1249 647 1283">Namming Nature Reserve</p>  	<p data-bbox="810 1249 1385 1653">Extremely underutilised nature reserve in that contains several of the swamps and lakes that are most threatened in the Swan Coastal Plain. Namming is reported to have Banksia Woodlands and several freshwater swamps and lakes which are unique Swan Coastal Plain environments. Namming is known to have the Freckled Duck, an endemic species to Australia.</p> <p data-bbox="810 1682 986 1715">Opportunities</p> <ul data-bbox="858 1742 1299 1935" style="list-style-type: none"> • Wildflower / Flora based activities • Lacking walking or hiking trails • Lacking bike trails • Lacking online resources

<p>Moore River National Park</p> 	<p>One of the better developed and well-known reserves, Moore River national park is just south of Namming Nature Reserve. However, compared to locations like Wanagarren Nature Reserve, near Wedge Island, there is clearly room for growth.</p> <p>Opportunities</p> <ul style="list-style-type: none"> • Room for additional hiking, walking and bike trails • Better connection between the adjacent nature reserve • Better online resources and promotion – especially in connection to the ecosystem and endemic species
<p>Nambung National Park</p> 	<p>Nambung National Park is a national park in the Wheatbelt region north of Lancelin. The park contains the Pinnacles Desert which is an area with thousands of limestone formations called pinnacles. It attracts around 250,000 visitors per year.</p>
<p>Lancelin and Edward Island Reserves</p> 	<p>The Lancelin and Edwards Islands Nature Reserve are located at the southern end of the Turquoise Coast islands nature reserve group. Lancelin Island has a high diversity of plants, supporting over 50 plant species, and is home to the endemic and threatened Lancelin Island Skink <i>Ctenotus lancelini</i>³⁶.</p>
<p>Lancelin Sand dunes</p>	<p>The Lancelin Lime dunes are part of the Quindalup dune system, one of a series of dune</p>

³⁶<https://narvis.com.au/asset/lancelin-and-edwards-islands-nature-reserve/#:~:text=The%20Lancelin%20and%20Edwards%20Islands,Lancelin%20Island%20skink%20Ctenotus%20lancelini.>


	systems in the Swan Coastal Plains that also includes the Spearwood dunes and the Bassendean dunes. Activities include 4WD, sandboarding, walking and more.
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Source: Pracsys 2024




10.1.2 Adventure Tourism

Adventure tourism involves activities of exploration or travel to remote, exotic, or unique are where the traveller should expect the unexpected. It is heavily associated with high levels of activity by the tourist, including physical activity, but it can also involve some degree of risk and challenges. These risks can be real or perceived, and they often require specialised skills and physical exertion. It can be argued that this type of tourism is already extremely prevalent in Lancelin with 4WD on the dunes and an array of water sports at the beach. Adventure tourism can be segmented into two main categories, these categories and relevant Lancelin activities are discussed below. Hard adventure activities are typically more physically demanding and involve higher levels of risk.

Figure 16. Lancelin hard adventure activities

Activity	Summary
<p>Four-wheel driving and quad biking</p> 	<p>The Ledge Point Off-road Vehicle Area (LPORVA) caters for two, three or four-wheel motorbikes only whilst the Lancelin Off Road Vehicle Area (LORVA) can be used by two, three or four-wheel motorbikes, beach buggies or four-wheel drive vehicles.³⁷</p> <p>Vehicles are currently rentable at the dunes, with safety instructors there to provide support and mitigate risk.</p> <p>Opportunity</p> <p>Improved facilities, management and</p>

³⁷<https://www.gingin.wa.gov.au/off-road-vehicle-information>

	infrastructure will allow further expansion of this industry and lead to greater safety for visitors.
<p>Kitesurf and windsurf</p> 	<p>Lancelin is a global destination for kitesurfing and windsurfing, hosting the Lancelin Ocean Classic since 1986 until 2019 (and hopefully again in the future!). Racing the 25kms between Ledge Point and Lancelin, it holds the Guinness World Record for the longest windsurfing race in the world³⁸.</p> <p>Opportunity</p> <p>Although already known by hardcore fans, the State could better promote and fund competitions occurring at Lancelin. They could even support the creation of new competitions that combine multiple locations along the coast.</p>
<p>Surf and stand-up paddle board</p> 	<p>Although the bay is protected by a reef, people can surf or stand-up paddle board (SUP) about a kilometre offshore, to the south is Lancelin's Back Beach, a popular spot with surfers of all ages and abilities. Boards are already rentable in Lancelin.</p>
<p>Lobster diving</p> 	<p>Lobster hunting through freediving is a popular fishing activity where divers catch lobsters underwater.</p> <p>Opportunity</p> <p>Communicating information on obtaining a license to engage with this activity and guides and gear rentals are areas that would need help develop this activity.</p>



³⁸ <https://perthisok.com/explore/lancelin/>



Mountain biking and trails	Mountain biking and trail riding is a popular activity and has been associated with the revitalisation of numerous WA towns that have undergone structural unemployment particularly post-mining and logging.
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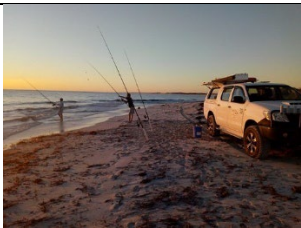
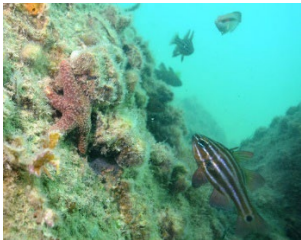
Source: Pracsys 2024

Soft adventure activities are less physically demanding and involve lower risk levels, examples of soft adventure activities in Lancelin are described below (Figure 17).

Figure 17. Lancelin soft adventure activities

Activity	Summary
<p>Bird Watching</p> 	<p>Lancelin and Lancelin Island are host to many species of nesting seabirds including Wedge-tailed and Little Shearwaters, White-faced Storm-Petrel, Great Pied and Little Pied Cormorants, Pacific, and Silver Gulls. More comprehensive information on local birds can be found here.</p>
<p>Hiking</p> 	<p>As mentioned in section 8.1.1 there are an immense range of nearby nature reserves that could benefit from developed to improve access and exploration of in a safe manner.</p> <p>Opportunity</p> <p>Nilgen, Wangarren and Namming nature reserves have basically no hiking/walking trails. Furthermore, Moore River National Park could be further developed. These could also be promoted together.</p>
<p>Bicycle/Off-road cycling</p>	<p>Off-road cycling, including mountain biking and gravel biking, entails riding bicycles over rough terrains providing a thrilling and physically engaging way to explore less accessible natural</p>

	<p>landscapes. Offers substantial health benefits, such as improved cardiovascular health, strength, and balance, but also fosters a deep connection with nature and promotes environmental consciousness by encouraging low-impact travel and exploration of protected areas.</p> <p>Opportunity</p> <p>Cycle West has identified areas around the Lancelin townsite as unique and ideal for trails development and this presents an exciting opportunity to develop another tourism attraction for the area.</p> <p>Like hiking, the Nilgen, Wangarren and Namming natures reserves and Moore River National Park could also be further developed to have low impact.</p>
<p>Wildflower Season</p> 	<p>Plant species in the understorey vary from the north to the south of the Swan Coastal Plain and may include herbs, grasses and shrubs. The more common species found at many locations include: Native Wisteria (<i>Hardenbergia comptoniana</i>), Australian Carrot (<i>Daucus glochidiatus</i>) and Native Parsnip (<i>Trachymene pilosa</i>).</p> <p>Opportunity</p> <p>Better resources about the types of flowers, where to find them and the ideal seasons to visit them. This information can then be used to promote tourism and stimulate better understanding for the regions value.</p>
<p>Fishing</p>	<p>Lancelin offers sensational fishing, unlicensed from the jetty or beach, and licensed on a boat.</p>

	<p>Most common catches include herring, whiting and squid with the occasional tailor and samson fish</p>
<p>Snorkelling</p> 	<p>Lancelin Bay is protected by outer reefs and islands that create ideal conditions for snorkelling, with an abundance of beautiful fish and marine life present.</p>

Source: Various sources, Pracsys 2024

10.1.3 Local produce Tourism

Local produce, from both farming and fishing, can complement the other sources of tourism well, providing an opportunity to promote the high-quality local produce in Lancelin and the wider Shire of Gingin. Examples of existing Gingin primary product businesses have been listed below.³⁹

- Borrello Beef
- Bullbar Beef Jerky
- Dr Jims Famous Lemon Squash
- Gingin Pomegranates and Dates
- Guinea Grove Farm
- Local Goat Artisan Cheese
- Loose Leaf Lettuce
- Marvick Native Farms
- Northern Valleys Fruit Pops
- West Coast Honey
- Western Produce

Seafood

Seafood has been discussed separately due to the strong demand for seafood in many Asian countries, especially China. Asia accounted for 73% of the seafood sales worldwide in 2022 and consumed more than two-thirds of the available seafood supply. In 2022, China accounted for a significant share of 49.64% by value in the Asia-Pacific seafood market. It is believed that this demand can translate well into tourism, with unique fresh seafood being a powerful source of tourism in this extensive market. The Lobster Shack in Cervantes is existing proof and success of this theory. Some of the unique seafood that might attract Asian-Pacific tourists are described below (Figure 18).

³⁹ *Central Coast Wheatbelt Food and Beverage Capability Guide*, 2021, Department of Primary Industries and Regional Development

Figure 18. Locally Available Seafood

Name	Description
Dhufish (West Australian Dhufish)	Endemic to WA, known for its firm, white flesh and sweet flavour, a local favourite.
Snapper (Pink Snapper)	Found throughout WA waters, appreciated for its tender and slightly sweet flesh.
Tailor	Common along the Australian coast, including WA, known for its strong flavour, great for grilling.
Whiting	Various species found across Australia, known for their small size and sweet flavour.
Australian Salmon	Found along southern Australian coasts, including WA, valued for its rich, oily flesh.
Western Rock Lobster	Western Rock Lobster Endemic to WA, a premium seafood product celebrated for its rich and sweet taste.
Blue Swimmer Crab	Found widely in Australian waters, including WA, known for its sweet, delicate flavour.
Oysters	Found in various parts of Australia, including WA, prized for their fresh, briny taste.
Mussels	Common across Australian waters, including WA, known for their plumpness and sweet, oceanic flavour.
Squid	Found in waters across Australia, including WA, versatile in cooking.
Octopus	Various species found across Australian waters, valued for its tender texture when cooked properly.
Baldchin Groper	Endemic to WA, known for its succulent white flesh, often used in high-end culinary preparations.
King George Whiting	Found in southern Australian waters, considered one of the best eating fish with a delicate, sweet flavour.

Source: Various Sources, Pracsys 2024

10.1.4 Event Tourism

The dunes would also make an ideal location for larger arts, cultural and experiential events. The dunes have already been used as backdrops for dozens of local and international films, photo shoots and weddings and would be an incredible location to drone shows, light shows, dance and many other mixed medium activities.

The dunes could generate amazing site-based installations, like those specialised by the City of Fremantle, where artists create unique works based on the site.

