Leigh Creek **Futures**

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SOUTH AUSTRALIA

Government of South Australia

Department of State Development

This Report has been prepared based on the proposals received in response to the Request for Information - Commercial Opportunities, Leigh Creek and surrounds, in addition to prior and subsequent consultation and investigations overseen by Dr Jane Lomax-Smith with the assistance of Kylie Heneker.

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Despite the challenges, there is an opportunity for Leigh Creek to be a model of best practice in management of economic change in a remote community that has been challenged by the demise of coal mining.

Executive Summary

This Report is presented in response to a Request for Information (RFI) announced by the Premier in October 2015 to ascertain the potential for commercial opportunities in the Township of Leigh Creek.

The RFI was open from 9 December 2015 until 1 February 2016 and attracted 34 responses from a diverse range of proponents. Following assessment against the RFI criteria, 21 of these were the focus of further examination and consultation between 8 February 2016 and 8 April 2016. During this period, the advice of over 100 specialists across state and federal government as well as non-government organisations was sought to assess the economic potential of the proposals.

The RFI offered the opportunity to focus on the social and economic future of the Leigh Creek Township and broader potential for development of the region, while more specific transition planning was being undertaken by the Department of Planning, Transport and Infrastructure (DPTI) for the Township, its infrastructure, housing, and potential physical and financial structure.

Based on current commercial proposals, the key findings of the RFI are that an expansion of government services in the Leigh Creek Township is not warranted at this point in time. However, the potential for several longer-term proposals to progress in the future, which involve use of the mine site and town facilities, may necessitate retaining and maintaining key infrastructure and housing.

This Report contends that Leigh Creek Township will need to continue providing services to approximately 700 people. This number is based on research and previous consultation that demonstrates Leigh Creek is an important regional service centre for approximately 500 people in surrounding communities, who rely on essential and municipal services continuing, and 200 government employees, Alinta Energy (Alinta) staff and business operators who reside in the *closed* town.

Moreover, it is recommended that a regional service town model would be better positioned to adapt and develop into the future as an *open* town, with housing made available in a considered manner for rental, in the first instance, beyond employees and government workers.

The RFI has brought to the fore several key themes that could foster the transition of Leigh Creek from a *closed* town into an *open,* regional service centre.

The Report first considers the repositioning of the Township as being Open for Business. It considers the possibilities of innovative management of commercial opportunities and existing businesses, changes to business models, Township signage and key infrastructure. It then recommends that inclusive governance structures are established to build community capacity within and beyond the Township and guide the transition of the community toward being an independent regional town.

The Report also offers several options for revitalising Leigh Creek by capitalising on the unique tourism potential in the region's mining history and geological assets, its world-renowned Ediacaran fossils, Aboriginal culture and natural biodiversity. It is also suggested that additional investment could be pursued in renewable energy initiatives. Finally, the potential for an education base with school camps, university field trips, an Orientation Hub and research opportunities is explored as providing a new purpose for the Township.

There is a level of urgency in embarking upon schemes to support the Township in the transition period between a closed mining town and an open, independent community to avoid irreversible decline. However, these proposals, if pursued as a co-ordinated strategy for the Township, could contribute toward keeping the town and its businesses functioning and viable, better using existing government infrastructure, adding value to the local economy and growing visitation to the Township and surrounding regions.

Despite the challenges, there is an opportunity for Leigh Creek to be a model of best practice in management of economic change in a remote community that has been challenged by the demise of coal mining.

Ongoing partnerships between government, business, local and surrounding communities will underpin the sustainable future of Leigh Creek and must be achieved with special reference to the Adnyamathanha Traditional Owners.

Request For Information (RFI) Snapshot

The RFI – Commercial Opportunities, Leigh Creek and surrounds opened on 9 December 2015 and closed on 1 February 2016.

The RFI was sent directly to:

325 individuals

15 Industry Groups, Institutions and Association distribution lists of over 10,000

The RFI was promoted publically via:

- **Media interviews**
- **Leigh Creek Futures Website**

Leigh Creek Futures Facebook	Department of State Development Twitter	Department of State Development LinkedIn
• 15 Posts • Total reach during campaign 6,969 people	• 37 Posts • Twitter community retweeted: 73 times • The top performing post gained a potential reach of 24,021	• 7 Updates • Each of the highest performing posts showed a maximum of 48 click throughs (The average for DSD LinkedIn is 7)

34 responses were received from interested parties including individuals, businesses, institutions and community groups across a range of industries.

Consultation included:

Visits to Leigh Creek and surrounding Communities between October 2015 and April 2016.

Meetings with proponents and more than 100 specialists in relevant fields between 8 February 2016 and 8 April 2016.

Key Industry Sectors:

Township Management or Town Facilities	Arts, Culture, Palaeontology, Geology based Tourism development
Renewable Energy	Mine Site Usage
Skills and Training	Transport Infrastructure
Innovation and Technology	Natural Resources and Agriculture

These proposals form part of the themes and recommendations presented in this Report but are not discussed specifically due to their commercial and confidential nature.

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1 Introduction

1.1 Background

Leigh Creek Township, located in a picturesque part of the Northern Flinders Ranges, is a well-designed purpose built mining town, owned by the State Government and currently leased to Alinta.

Leigh Creek has a unique cultural, social and political history. It has nurtured a multi-generational and multicultural resident community during the last 70 years and engendered an extraordinary level of state-wide respect, pride and gratitude. It has been credited with enabling post-war industrialisation of South Australia by ensuring energy security through vertical integration of coal mining with rail transportation and electricity generation.

At the time it was built, the current town of Leigh Creek was on the cutting edge of modern urban design, appearing to the visitor like a suburb of Canberra mysteriously transported to the heart of the South Australian Outback. The location is in an area of great Adnyamathanha significance and the community is acknowledged to have long known that the area held *buried dampers and smouldering coals*.

The State Government leased the Leigh Creek mine, linking railway line, and the Port Augusta power station, in 2000. In June 2015, 15 years later, Alinta gave notice that it would cease mining at Leigh Creek with the mine closing on 17 November 2015 and power generation ceasing within six months.

Of the total direct Alinta retrenchments across South Australia, 253 of 458 were in Leigh Creek. Since the announcements regarding closure, the residential population of the town has decreased incrementally. The most recent data, at 29 April 2016 indicated that the Township had 220 residents comprising residual families, contractors, government employees and business employees.

1.2 Government Response

The State Government's response to the Alinta announcement has been to establish the Upper Spencer Gulf and Outback (USG&O) Taskforce and commission an extensive community consultation, which concluded in October 2015.[1] This consultation engaged affected employees and residents but also documented the role the Township played in providing services to surrounding pastoral stations, residents, businesses and communities.

Considerable work has also been undertaken on transition timetabling and plans for the mine site closure and rehabilitation. This includes hand-back of the complex and entire asset base of the Township, as well as realignment of the existing and necessary leases, licenses and statutory approvals.

Importantly, an assessment of the assets and costs of providing Township services to future residents, businesses and surrounding communities has now concluded.

In the interim, the State Government has given a commitment to provide services to Leigh Creek and the surrounding communities until July 2018 and, in addition, committed $1 million and $7 million of funds in August and November 2015 respectively, for restructuring in the USG&O region.

The challenge facing Government has been to plan for a probable reduction in the Township's footprint in a manner that allows for the reinvention of this small remote community so that it can sustain viable future economic development, grasp emerging opportunities and provide ongoing support to the region.

The Premier, The Hon Jay Weatherill, announced on 13 October 2015 that there would be an RFI process inviting individuals and commercial enterprises to put forward their ideas for new tourism and other business ventures in the Leigh Creek region.

The RFI focussed specifically on the Township and associated infrastructure and did not include entities with commercial interest in the mine site or indeed the rail line or Port Augusta facilities related to the Power Stations, unless they were expected to result in a requirement to use the Township.

Several such submissions made to the RFI would, if successful, have an impact on the Leigh Creek Township in terms of demand for housing, use of facilities and the level of government and business service provision required. The proponents with the most advanced proposals in this group made repeated requests that the Township be retained in its current form to avoid the need for later infrastructure investment.

Whilst none of these proposals are certain to proceed, in some cases proponents have made commitments in the short term to undertake pilot studies, or investigations on site and have given information based on employment projections and housing requirements. This data has been incorporated into the transition planning being undertaken by DPTI.

The detailed assessment of these and other RFI proposals contains information of a commercial nature and is not included in this public report.

1.3 The Life Cycle of Mining

The Australian outback is scattered with the remnants of abandoned agricultural and mining ventures. This familiar landscape is part of our collective memory. Whilst commodity markets appear cyclical it is also apparent that each mine demonstrates a life cycle, which moves from exploration through exploitation to rehabilitation. The social and economic analysis of mining towns and surrounding hinterlands has more recently identified these changes as forming a predictable pattern. Specifically, the tendency is for services to relocate from remote towns to aggregate in active mining centres so that when a mine closes, the wider region can be deprived of even the services and businesses they had previously enjoyed.

With the benefit of hindsight it is possible to suggest that a post coal economy was predictable. However, the speed with which the industry has declined has perhaps caught investors, planners and economists by surprise. It is reported that 45% of United States (US) coal producers have filed for bankruptcy in the current down cycle.[2] Peabody Energy, the biggest US coal producer, filed for bankruptcy in April 2016 just as Norway's Sovereign Wealth Fund, the world's biggest, announced it was divesting itself of investments in energy groups with more than 30% of their income from coal.[3]

The severity of the social impact can be seen in the commitment by US Democratic Presidential candidate Hillary Clinton (March 2016) to fund a $US30 billion economic transition plan for coal-dependent regions if elected.[4] Her plan expands on a set of investments in coal-dependent communities outlined in US President Obama's POWER+ Plan which has invested over $US100 million in the last two years to help communities struggling from the decline of the coal industry and bankruptcies of major producers.[5]

Global examples of coal mine closure and urban decline over the last quarter century have led to a plethora of policy units and economic transition plans but each region has its own context and constraints. This Report draws on the available knowledge about the life cycle of mining communities, data on the decline of regional economies and the research commissioned through funding from the Australian Government by the Cooperative Research Centre for Remote Economic Participation (CRC-REP). It also reflects recent consultation and strategic option studies undertaken by the South Australian Government.

The USG&O region is not alone in facing the social challenges of coal mine closure, however, the situation in Leigh Creek is unusual because it is one of the last examples of a closed residential mining town: it was developed by the state and at the end of its life cycle is being restored to government ownership and control.

Whilst optimising life cycle planning and investment in enduring value and resilience in a geographical area are increasingly becoming features of the way that modern mining companies operate, the development of Leigh Creek by the state predated the modern obligations and requirements that are now placed on mining operations under legislation.

1.4 Sharing the Benefits: Minimising the Losses

The concepts of social license and corporate social responsibility in exploiting natural resources did not exist in 1942 in the way we understand the obligations in 2016. The obligations that accrue during a mining venture are now seen in a broader sense, reflecting the effects of resource exploitation during the life cycle of a mine from exploration to mine closure. The traditional royalties paid to the state are only a portion of the obligations to Traditional Owners, former workers, the environment and the broader community that now become part of an operator's corporate social responsibility.[6]

The early work on corporate social responsibility allowed the coalescence of philanthropy, ethics and legal responsibilities to yield a tangible return to the environments and communities most affected by resource extraction. In the last 20 years, the newer concept of a social license has come to refer to the need in a democracy to have a society's consent as well as government approvals. Certainly the absence of fair play and loss of a social license is a major reputational risk in a country such as Australia.

The current thinking around best practice in the global resource sector is that at the development phase of a resource, there should be consideration given to planning for the community impact of mine closure by encouraging resilience through community building, economic diversification and by striving to avoid a monocultural economy.[7]

The perpetual lease under which the Leigh Creek coal mine has operated falls outside of the Mining Act 1971 although, until now, the present operators have generally gone far beyond a strict interpretation of their obligations in dealing with staff and the local community. However, current South Australian Regulatory Guidelines include greater regional, social, economic and environmental benefits in the approval process for a proposal for mine site activity.[8] As a way of extracting enduring value for a region beyond the life cycle of the mine, it is now possible in this state for determinations to include matters such as regional business development and diversification, investment in local supply chains, indigenous business mentoring as well as employment and regional service provision.[9]

Had such provisions existed previously, local business operators, residents and Aboriginal communities might have more fully benefited from the activities in Leigh Creek.

Arguably, the return of the Leigh Creek mine and Township to government ownership and control brings with it the combination of government obligations as well as the corporate social responsibilities that would have existed in a mine subject to more modern regulations than those used 75 years ago.

There is now an opportunity, within the context of government ownership, to plan an effective transition from a *closed* town to an independent, *open* community and to bring any future activity at the mine into a more modern regulatory framework.

1.5 Regional Dependence

The well-researched tendency for remote mining towns to attract otherwise broadly distributed public and private services and to draw them away from surrounding towns, has major implications for those in the hinterland as the lessor seeks to reduce service provision in the Leigh Creek Township. In a remote outback setting with a low density population, this loss of amenity for the occupants of the hinterland can undermine a fragile ecosystem.

As Leigh Creek has evolved over the decades, government investment and services have been embedded in the town so that currently Leigh Creek South accommodates almost all government employees in the region. As a result, neighbouring towns and communities in the hinterland surrounding Leigh Creek are reliant on Leigh Creek amenities ranging from education and health, to access to fresh food.[10]

Unlike the original consultation that guided building of the town 35 years ago, the 2015 report commissioned by the Department of State Development (DSD) resulted in engagement with affected employees and local residents but also with the surrounding pastoralists, residents, businesses and communities and, in particular, the Aboriginal Traditional Owners.

This commissioned report identified 500 dependent individuals, based on interviews with residents from nearby settlements as far as Marree, who gained the bulk of their state and private services from Leigh Creek.[11]

Specific studies based on Leigh Creek show that the dependency appears statistically greater for Aboriginal hinterland residents and is more pronounced than around Roxby Downs.[12] In comparing the viability of the hinterland of Roxby Downs with Leigh Creek, this research also suggests that the decline of neighbouring settlements appears to increase with the longevity of a mine and to be slowed by the hinterland's involvement in other industries.[13]

In this CRC-REP funded research,[14] the Hinterland of the Township was defined as any community that was within a 140 km radius, which represents a return drive of up to 4 hours.[15]

These findings are further validated by the academic literature about remote mine closures in general. Apart from the propensity for government services to aggregate in larger centres, generally a mining town provides a broader customer base and attracts business from surrounding settlements. Over the last half century, diverse decisions all focussed on the wellbeing of the state's coal and energy source have unwittingly increased the demise of the settlements surrounding Leigh Creek. For instance, building a new standard gauge rail line, or realigning roads have in turn each affected the viability of nearby towns.

While there is general acknowledgement by those in the surrounding region that Township services and population in Leigh Creek will contract, there is clear evidence that there would still be an ongoing need for an area school, emergency services, shops, health care and utilities.

1.6 Leigh Creek Open for Business

Despite the opportunities ahead, there are significant challenges and risks for a transition to a Future Leigh Creek and a sustainable hinterland. Leigh Creek Township already demonstrates the features of spiralling decline. The perils a *closed* town accrues over time can be seen as generating an additional level of jeopardy with specific challenges as mine closure approaches.

With the government's commitment to retain services until at least 2018, the future amenity and viability of the town and the hinterland are inextricably linked to the survival of the Town Centre.

This Report contends that Leigh Creek needs to transition to an *open* town model both symbolically and physically.

The symbolic *opening* of the Township requires its inhabitants and business owners to shift their gaze outward by initiating external marketing, website development and modifying businesses to cater for visitation and the broader region.

The 'symbolic' opening also relies on establishment of inclusive governance and decision-making structures that ensure buy-in from surrounding communities and welcomes and enshrines Adnyamathanha representation. This also means drawing upon hinterland communities as a future source of volunteer support for essential emergency and other services in the Township.

The 'physical' opening of the Township begins with the housing being made available for rental or purchase beyond government employees or current residents and extends to the improvement of signage to the town, Township layout and the alteration of key infrastructure to encourage visitation and easier navigation.

The 'physical' opening of the Township must also involve strategies that will consolidate or potentially expand business activities and encourage greater use of existing infrastructure.

There is evidence that to maintain the Township streetscape and service the regional tourism economy, key and co-dependent businesses need to be sustained. The survival of these businesses will also support property values and assist a future transition to an open town with private investment.

Leigh Creek is far better equipped to move towards a mixed and tourism based future than other mining towns by virtue of the possibility for continuing industrial and resource activity on the mine site, not to mention the unparallelled cultural, environmental and aesthetic assets nearby.

Not all mining towns are so well positioned geographically. Occupying such a picturesque and culturally rich location in the centre of a significant tourism region, there is a major capacity for Leigh Creek to be a base for local activity, educational visitation, and a resource for travellers and local businesses.

Yet, while new commercial activity on the mine site would revitalise the Township and regional tourism development would enhance visitation, there is a need for strategic investment in the short term to facilitate a transition from a closed to an open and independent community.

Although the State generally has had massive economic advantage from the endeavours of the former Electricity Trust of South Australia (ETSA) and subsequent lessees, there has been limited local employment and training, or evidence of the development of local supply chains or community leadership and capacity, so that additional input is needed in the short term to enhance the viability of this community.

The discussion of what constitutes a regional service town and the services it needs to provide is hampered by the lack of a clearly agreed definition. Some might suggest that the town should only provide services for those on the public payroll, which amounts to less than 100 persons.

However, this Report has framed the discussion of a government service town as being one serving a community comprising approximately 700 people. That is, current residents of the *closed* Township and those of the dependent hinterland who are effectively the clients of both the government services and the private businesses.

The justification for treating Leigh Creek differently from other fragile regional economies is that its *closed* nature and aggregation of government services has distorted the local social and economic structure of the area. In making a relatively precipitate transition from a *closed* to an *open* economy and community the Township needs a period of transitionary support.

The future amenity and viability of the Leigh Creek Township and the hinterland are inextricably linked to the survival of the Town Centre.

1.7 Guiding Principles for the Future of Leigh Creek

A review of the literature, existing documentation, and recently commissioned and emerging reports, has allowed evidence to underpin the development of eleven Guiding Principles, which have framed analysis of the RFI submissions, informed transition planning and assisted with the identification of viable opportunities.

These principles, coupled with the recommendations in this Report, may also provide a framework for Government to consider any new projects that may arise in the future and assist with the social and economic transition of the Leigh Creek Township to eventual independence.

Guiding Principles

In transitioning the Leigh Creek Township from being a *closed* mining town to an *open* regional service centre, Government is encouraged to:

- Seek a range of economic inputs to diversify and add value to the local economy to provide year round employment.
- Encourage new business, not moved business.
- Develop Township vibrancy, activity and business enhancement to signal Leigh Creek is Open for Business.
- In any tenders, have a weighting in favour of local business development and local employment and training.
- Ensure that potential activities for future growth of the Township are supported in the transition planning for the town.
- Recognise the supremacy of the Leigh Creek Township Centre infrastructure by encouraging central investment and occupancy to avoid relocation of businesses to the periphery.
- Support investment that best uses and maintains existing infrastructure and enhances the function and accessibility of the Township.
- Support sustainability and ensure future investment reduces the carbon footprint of the community and supports the State's renewable energy strategy with any investment linking with similar activity across the region.
- Ensure inclusive decision-making by promoting local leadership, community involvement beyond the Township and the direct representation of the Adnyamathanha Traditional Owners.
- Encourage strategies that grow visitation to the Township and surrounding regions.
- Ensure direct and frequent communication with residents and surrounding communities on the transition process and government plans.

A Brief History of Leigh Creek

The South Australian Company instructed Colonel William Light to site the capital city near a deposit of coal and appointed a mineralogist, Johannes Menge, to investigate potential sites for coal and minerals exploitation.

As the colony grew, coal was needed for domestic use, smelting copper, steamships, coal gas, electricity generation and the developing rail network. Despite enthusiastic exploration and intense debates in the broadsheets, there were no local coal sources, and the Government posted the not insubstantial reward of £10,000 for the discovery of a *workable* coalfield in 1878.

A prospective site at *Leigh's Creek* was identified but despite decades of private investment, the location proved unviable and the funds were never released due to scepticism about the coal's low calorific value and the mine's distance from Adelaide. There was a short trial of the local coal during WWI but Adelaide Electric Supply Company (AESCO) were unprepared to persist using brown coal and, as if needing further proof of their intent, invested in assets unsuited to its use.

By WWII, coal still came by sea, from New South Wales (NSW) and Victoria but also from overseas. Shipping was increasingly dogged by Japanese submarines and local coal supplies were being disrupted by NSW strikes. Hospitals and industry had been affected and trains cancelled. In this environment, there was public support for legislation to allow the Engineering and Water Supply Department (E&WS) to extract and bag brown coal. Before the end of the war, it was being used domestically but AESCO remained unconvinced and refused to purchase 'Playford's coal'.

A Royal Commission reported 'that the public interest might be better served by public ownership of the electricity supply than by a private company' and AESCO was nationalised. The proposition was assisted by the lack of public sympathy for the intransigence of AESCO.

Power generation plants in Port Augusta and a standard gauge railway line were built to bypass the Pichi Richi narrow gauge line. The expansion of power generation led to the need to increase mining and rail shipments and by 1977 the closed mining town at Leigh Creek North needed to be moved, and the Monarto Development Commission (MDC) was engaged to manage the process. The decision was made to incorporate the most modern amenities and environmental standards so that the town became something of a showcase for modernity.

The development of Leigh Creek succeeded in underpinning the industrialisation of South Australia in the second half of the twentieth century and was transformative in the same manner as the Snowy Mountains Project.

LEIGH CREEK
& COPLEY BOTH
OPEN FOR BUSINESS

2 Leigh Creek Open For Business

2.1 *Open* or *Closed* Township

Historically, once a decision had been made to demolish Leigh Creek North to allow mine expansion, there was public debate about the possibility of removing the town and having mine staff based at Whyalla with a drive in and drive out (DIDO) or fly in fly out (FIFO) workforce. The arguments against this were not dissimilar to those in play in 2016 and probably no less true.

It was said that loss of the town's infrastructure would reduce local employment and have detrimental social and economic impacts on the surrounding area, which had become dependent on the facilities provided by Leigh Creek North.[16] Similarly there was heated debate about the notion of a *closed* town ending.

A *closed* town meant that occupation depended on employment or the provision of essential or government services or short-term contractual activities. Whilst a closed community tends to become relatively affluent, have minimal crime and no unemployment, from the perspective of the hinterland it can be seen as inequitable. Even though the neighbouring region certainly benefited from better services than equivalent remote communities, it still failed to enjoy the full benefits of mining, and had comparatively high levels of disadvantage and poor housing, especially in the Aboriginal communities.

The Cabinet actually resolved to move and retain the town and furthermore made a decision that it should be *open*. ETSA sought planning assistance from the Monarto Development Commission (MDC) and established a Site Selection Advisory Committee, which evolved into the Town Advisory Committee, to consult on the new development. This committee had representation from Leigh Creek Township residents and the relevant unions but did not include the broader community or the residents of Copley. It was determined to oppose the opening of the new town.

Eventually, despite the earlier Cabinet decision, the views of ETSA and the Leigh Creek community prevailed and the newly elected Cabinet resolved to keep the town closed.

2.2 Challenges of a *Closed* Township

2.2.1 Housing

The *closed* nature of the Leigh Creek Township has meant that residency has depended on ongoing employment or good standing and all of the services and infrastructure have been built around the mine workforce.[17] This makes the current transition to a new normalised operating model and community more complex.

Since housing is the core factor in opening the town and the housing footprint may reduce, managing the housing stock needs to be planned carefully. To sustain the Township there is a need to retain as many residents as wish to stay and to find an interim leasing arrangement, whilst reconfiguring some assets and maintaining flexibility for future potential mine site staff and other possible businesses.

All proposals received through the RFI were considered for their potential impact on the future demand for housing in the Leigh Creek Township. Information supplied by proponents on employment projections or specific accommodation requirements was provided to DPTI to inform housing demand estimates and planning of a revised footprint for the Township.

Whilst future activity on the mine site and any large road infrastructure investment nearby may increase the need for accommodation in the Township, these are longer-term propositions and depend upon a range of external factors. In making predictions about housing requirements, it might be reasonable to suggest a review deadline after which some of these possible large-scale mine site options, in particular, might be discounted. This is included in a later recommendation in the following chapter.

The number of Alinta staff currently employed is 70, with government and commercial employees amounting to 40 persons. Over the course of the rehabilitation process, which will take 12-15 months, Alinta has advised that 50 employees will be contracted on a rotational basis. The most recent data, at 29 April 2016, indicated that the Township had 220 residents comprising residual families, contractors, government staff and business employees.

In the case of any other town, outward migration or unemployment may impoverish the community and reduce options but the economy is diverse enough to sustain the social framework. The social fabric of Leigh Creek will depend on the manner in which the housing is leased or sold.

2.2.2 Urban Design

The urban design of the Leigh Creek Township also reflects the historical decision not to *open* the town. The current town is hidden and difficult to navigate for outsiders. It is obscured behind trees and invisible from the main road so that the casual traveller can be startled by its almost suburban appearance with street lighting, orderly kerbed streets, well maintained footpaths and established shady native vegetation.

The *closed* nature and intentional inward focus of the town infrastructure and amenities makes navigating on foot through the Town Centre, or by car around the tiered cul-de-sacs, endlessly frustrating for outsiders. For tourists arriving at the central town car parking area, it is difficult to locate the front of the Town Centre and even more confusing trying to find the entrance to the Tavern. It is not clear that the facility is a motel and the prospective guest can be daunted by the lack of an entrance and the need to go to the Tavern bar to check in.

2.2.3 Poor Signage

Just as the Township needs assistance to help visitors to find the amenities in the Town Centre, the road approaches to Leigh Creek and neighbouring towns are confusing and discouraging to passing traffic. The signage at the gateway to Leigh Creek appears designed to allow travellers to stop and read the roadside information and avoid the town. Coming from the south it is actually possible to take a detour into a landscaped labyrinthine parking bay instead of the Town.

By being set back from the road, Leigh Creek also lacks the speed restrictions seen in so many regional towns which makes the need to provide clear signage and warning about the local assets even more important, to allow time for drivers to decide on an unplanned detour.

Some of these issues are equally evident in the surrounding Townships. Beltana, which was the origin of a submission regarding the importance of Leigh Creek, is itself in major need of a signage overhaul. The Township has 50 residents of whom 35 are permanent and who occupy a town with well-restored and photogenic heritage infrastructure, and a nearby growing and significant tourism venture based at historic Beltana Station.

Unfortunately, the roadside signs directing the visitor to the settlement of Beltana, around 10km away, are adjacent to a former roadside business. On turning off the road, there is a large *Closed* sign on a gate, at which point many vehicles turn back, as evidenced by the well-used dirt turning circle.

In response to requests arising through consultation on the RFI, signage on the approach to Leigh Creek has already been altered to make it clear that Leigh Creek Township and nearby Copley are both open for business. Any further improvements made should be part of a co-ordinated regional strategy that improves signage for neighbouring towns and tourist attractions.

2.2.4 Inward Facing

Having been managed as a company town, the Tavern and the Caravan Park have little online advertising beyond that which is accessed through the South Australian Tourism Commission (SATC) website. The Tavern has a Facebook page but no website and the Caravan Park has a web page but no capacity for online booking.

Despite this, fortunately some tourists still visit Leigh Creek and these can be broken down into business travellers, tour groups and independent travellers.

The business travellers in the region account for 30% of visitors and 40% of the associated bed nights with perhaps even more in Leigh Creek, where they are engaged in mine closure activities, visiting consultancies and government transition plans. Although no active marketing has been undertaken, the Tavern has one loyal Adelaide-based bus tour company that brings regular coach loads of mature travellers for Flinders and Outback Tours throughout the season (March to October) and has its usual bookings throughout 2016. However, while interstate bus companies do market tours to South Australia, none appear to come to Leigh Creek.

Independent travellers are also attracted to the Caravan Park, which appears busy and to have periods of full occupancy. Despite the patchy telephone coverage, independent outback travellers currently book caravan sites and the Tavern accommodation by telephone. However, all tourists, including the so-called 'grey nomads' and recreational vehicle (RV) owners, are increasingly using web-based information to seek new destinations.

2.3 Opening the Township

2.3.1 Residential Renewal

To redress the closed nature of the residential community, opening of the Township begins with the housing being made available for rental and, ultimately, for purchase beyond government employees or current residents.

In order to foster residential renewal, any resident wishing to stay at the end of November 2016 should have their leases rolled over at the current rental level to maintain occupancy and safeguard the remaining assets.

The next stage in opening of the Township should include the opportunity for housing rental to be extended beyond existing residents, government employees and Township workers. This process should be a considered transition over a twelve-month period. Ultimately sales will depend on asset values, the cost of water meterage and the calculation of a town service charge, which should be determined within this period.

Recommendations

1: **A regional service town model will better position Leigh Creek to adapt and develop into the future as an open town, with housing made available to rental tenancies on transition, and consideration given to eventual sale of residential units for occupation or transportation.**

2: **The process of opening the town be transitioned over a twelve-month period from the date of government takeover.**

2.3.2 Finding the Way and Naming the Parts

To redress the hidden aspect of the Township and its closed physical design, urgent work is needed to remedy the inward nature of the town, increase its visibility, design a wayfinding system and undertake remedial work to improve the visitor experience.

As part of these physical changes, renaming of the Township components should be considered. Apart from the pressing need to respect the Aboriginal Traditional Owners, there are additional ways that naming facilities might improve marketing and economic viability. Leigh Creek South has been meticulously planned but has adopted names to designate areas and facilities without reference to the cultural or symbolic power that the words could convey.

In some cases, the names were selected merely to distinguish the places from nearby facilities. Since Copley had once been Leigh's Creek and somewhat confusingly boasts a Leigh Creek Hotel, the Leigh Creek enterprise is called a Tavern rather than a hotel or motel. The Town Centre is called Todd Mall (in memory of Alf Todd) but is not a mall in the commonly accepted sense of the word. The streets are named after indigenous trees but there are no Adnyamathanha place names in the entire Township.

Recommendations

3: SATC and DPTI collaborate to design a suite of upgraded signage for installation at the gateway to Leigh Creek and surrounding Townships in the Northern Flinders Ranges and Outback Region.

4: An assessment is undertaken of potential design improvements to the physical configuration, building entry points, place finding and legibility of Town Centre infrastructure, especially the Tavern.

5: Government consults generally and seeks advice from Adnyamathanha Traditional Land Association (ATLA) on renaming the Township infrastructure and amenities, including the airport.

2.3.3 New Business Models

Despite its central position in a captivating zone, tourism activity in Leigh Creek is accidental rather than planned or sought. Marketing of the assets in Leigh Creek should include an online business presence and might be best managed through a future Tavern management contract.

The more symbolic opening of the Township also requires its inhabitants and business owners to shift their gaze outward by initiating external marketing, website development and modifying businesses to cater for visitation and the broader region.

Recommendation

6: All tenders or new management of businesses and services in the Township include a requirement that practices be adopted to signal the town is 'Open for Business' with websites established, new signage, and openness to increased tourist visitation.

2.4 Arresting the Decline

Despite the Government commitment to support government services in the Leigh Creek Township until July 2018, as soon as Alinta gave notice of its intention to cease mining, the media and the public discussion has been centred around the Township shutting down.

Increasingly, the belief that is gaining momentum is that the town has actually already ceased operating. This perception is reinforced by internet searches seeking Leigh Creek amenities, which provide commentary about retrenchments, population loss and business closures.

Over the last decade Leigh Creek businesses have closed, but until now, no regionally significant services have been lost.

In 2015 the café closed so that in 2016 the only businesses remaining are the Tavern, the Post Office (with banking facility), the supermarket, a part time hairdresser, and an expanded service station on the town fringe. The Post Office owner has given notice that he intends to close before June, however a replacement operator is being sought.

In their own way, each of these operations supports a different thread in the patchwork of Town Centre viability. Should any remaining retail outlets close in the Town Centre or if the associated public toilet facilities were to close, visitors and residents would only have available the services at Leigh Creek South Motors on the periphery of the Township. There would then be no reason to enter the Town Centre. The risk to the town's value and its capacity to recover are made more difficult if there is a continuing downward spiral with empty premises and derelict shop fronts. This would make a revitalisation initiative immeasurably more difficult.

Local Government across the world has had to face the consequences of retail loss in metropolitan and regional centres. The impact of large scale fringe development in metropolitan areas and demographic change in the regions can result in a predictable pattern of vacancy, disuse, vandalism and crime. The outcome is falling property values and sometimes unattractive if not unsavoury land uses.

The good news is that planners have a suite of tools to help to reverse this decline and in the case of a wholly-owned Government town there is a capacity to intervene without needing to manage multiple property owners.[18]

2.4.1 Finding Solutions

Local Tourism operators with businesses close to Leigh Creek (the Northern Flinders Ranges and Outback Tourism Group) have been quick to see the risk to the region of general decline and the closed nature of the Leigh Creek Township.

In late 2015, these local tourism operators although members of the geographically wider Flinders Ranges Tourism Operators Association (FRTOA) and Flinders Ranges and Outback SA Tourism (FROSAT), were encouraged by the Outback Communities Authority (OCA) to meet and discuss the potential created by the closure of the Leigh Creek mine and the probable opening up of the town.

For this group, the chief risk facing the Township was the public perception that the town was no longer open for business. This was seen as highly damaging to the town's businesses, which needed time to reconfigure and adapt to a more outwardly facing business model.

This local leadership group comprising owners and operators of established and mature businesses quickly identified the need to recognise the opportunities ahead, appreciate the present risks and engage with government to find a direction to take for the local community and industry.

Their concerns aligned with the general views of the broad community consultation undertaken in 2015 and yet were viewed through the prism of economic development and their understanding of the reality of local business.

The group described specific opportunities for business development and established the areas needing long term planning as well as several urgent issues requiring quick action. The submission they made was sent to the Minister for Tourism before the RFI process began but has been considered here as a way of harnessing their insights and expertise.[19]

The group demonstrated a level of optimism, but spoke of urgent action before 2018 to prevent the town entering a downward spiral. There was a specific request that 'communication commence that Leigh Creek continues to be open for business to support tourists, the industry and local businesses'.

For these operators, the need for Leigh Creek to be Open for Business was focussed on increasing marketing, better using the assets, improving communication and access to the region including sealing of the Strzelecki Track.

Drawing upon the insights in this submission and other proposals received in the RFI process, a strategic approach to managing the commercial assets in the Leigh Creek Township is recommended.

2.5 Infrastructure Futures

2.5.1 Innovative Management

To ensure that the Township streetscape is maintained, property values supported and the regional tourism economy serviced, it is essential that key and co-dependent businesses are sustained.

Businesses catering for residential populations and government employees need year round income streams and may require consolidation of activities to remain viable. Importantly, Township retail activation should be approached in the same manner as in a metropolitan shopping precinct, by managing the tenancy mix, seeking suitable occupants and aiming to avoid further loss of retail activity. Tenancies should, where possible, be aggregated within the Town Centre to form a critical mass, and business activity should not be allowed to further migrate out to the urban fringe.

The guiding principles developed to assess RFI proposals and transitioning of Leigh Creek Township need to be applied to the future management of infrastructure in the Town Centre.

A vital component of this management of infrastructure is the need to encourage occupation of Township buildings by attracting small businesses or social enterprises.

There is evidence to indicate those businesses beyond the usual town services that are highly valued by the region, the local community and tourism sector are the Tavern, supermarket, Post Office, garage, and Caravan Park.[20] The suite of operations is co-dependent and customers to any one business also visit others. Several RFI proposals from local community members focussed on consolidation of existing business operations and expansion of these key amenities. Outside the Township, the Airport, the dump and the need for better internet connectivity were all the subject of RFI proposals suggesting ways to develop these resources or capitalise on commercial opportunities.

2.5.2 Main Street Vibrancy

A tourism stop at Leigh Creek is only attractive if it has essential supplies and can then offer discretionary goods such as local Art work or souvenirs. Ensuring that there is vibrancy and activation in the Township through occupation of vacated buildings will also ensure better use of government infrastructure leading to improved viability of local businesses.

It may also be useful to remind mine site proponents of the presence of vacant shop fronts that could be used in future and to invest in pop-up amenities to provide interest, vibrancy and activity.

Creative arts activities also have further potential to offer long term opportunities in Leigh Creek. The region already has painters, potters and soapstone carvers and with encouragement and the availability of suitable

vacant buildings, could offer sales to tourists who could extend their involvement in the community with attendance at related workshops. One such local arts association, which has both indigenous and non-indigenous members of various ages and backgrounds, has expressed interest through the RFI process in locating a shop and studio in Leigh Creek.

Country Arts SA has also proposed a range of art and cultural developments that could be supported in Leigh Creek directly, as well as in surrounding communities, to foster vitality and social cohesion in the Township. These include better use of the high standard facilities available in Leigh Creek, including the cinema complex for film screenings and performances. Through better co-ordination and programming, Leigh Creek could become a key location for touring performances, museum exhibitions and potentially large, annual events like Opera in the Outback, which provide both tourism and cultural benefits.

The important role of arts and culture in revitalising regional communities and contributing to social cohesion and belonging is critically important.

Recommendation

7: Government considers funding a position dedicated to the Northern Flinders Ranges region to co-ordinate and seek funding for arts, cultural, sporting and recreational activities and to promote Leigh Creek and the surrounding communities as a key location for regional programming and events.

2.5.3 The Leigh Creek Tavern

The Tavern/motel is one of the key anchoring tenants in the Town Centre. It provides employment and amenity to Township residents and comfortable accommodation to travellers. The business comprises a front bar, beer garden, bottle shop and dining area, whilst the accommodation comprises nearby rooms and slightly more distant cabins. An additional opportunity is the management of the stand-alone industrial laundry, which could potentially service the entire regional tourism sector.

The motel rooms are sometimes booked out in the tourist season with individual travellers and regular visits from coach tour groups. There is an ongoing need for accommodation by mine site proponents as they carry out local assessments and by those engaged in the transition back to government ownership.

Despite its inward focus, the facility previously made sufficient profit to support the swimming pool complex running costs.[21] However, as the mine activity has ceased, the front bar has slowed dramatically and on its present trajectory, in the absence of any marketing expenditure or hotel management expertise, the Tavern may not be viable in the future.

Advice from the local tourism sector, Regional Development Australia Far North (RDAFN) and the Australian Hotels Association (AHA), as well as external hotel managers and operators, suggests that the motel business is viable as a stand-alone operation and it seems very likely that a reconfigured business model developed by an experienced operator with marketing expertise, could successfully operate the entire business.

Perhaps in view of the commercial uncertainty around the ongoing nature of the Township and outgoings related to the assets, there have been only two Tavern related respondents to the RFI.

In order to avoid the precipitate closure of the Tavern facility on the transition date, an Expression of Interest (EOI) should be developed at the earliest opportunity to allow continuity in local employment and the operation of the business at the time of transition back to government ownership. For example, this may take the form of a management agreement for a specified time at minimal rental, with payment of an agreed low percentage of turnover to the lessor, and a later plan to offer the amenity for private ownership at the end of the term.

Recommendation

8: Renewal SA or an appropriate agency, with the support of DPTI, SATC and RDAFN prepares an EOI to result in a lease, management agreement or purchase of the Tavern and Motel facility at the earliest opportunity.

2.5.4 Supermarket and Retail

The supermarket is a key tenancy supporting the viability of the Town Centre and liveability of the region. Whilst the current mine operator is only required to provide retail amenity to its own staff, the state will better appreciate the responsibility of a Township owner to the broader community.

Access to fresh food is of high priority to local families and residents in the hinterland. Importantly, research has identified a significantly higher dependence on daily food supplies among Aboriginal shoppers than non-Aboriginal shoppers from the nearby settlements.[22] Aboriginal communities such as Nepabunna are already a 140 km round trip from Leigh Creek and the settlement has no mobile telephone coverage or domestic internet access.

The provision of fresh food, beyond the offerings at the service station or available online, should be supported and encouraged for government workers in the Township, nearby communities, and for the contribution such a service makes to broader Township sustainability.

Firstly, the presence of a fresh food supermarket attracts passing traffic, and so complements and enhances the income generation at the Caravan Park and Tavern. Secondly, it operates as an anchor tenant in the shopping precinct and enhances arts and other tourist and retail facilities. Thirdly, it supports the liveability of the region for government employees and the hinterland residents.

Future town management could assist in downsizing the supermarket lettable floor area and might even encourage business consolidation to incorporate a Post Office facility should the current business fail to find a new stand-alone operator. These separate businesses currently support highly valued CentreLink, Medicare and banking services in a region where there is limited mobile telephone coverage and no easily accessible broadband internet service.

Support for the continuation of the present supermarket or a future business that provides fresh food and supplies in the Town Centre must involve the maintenance of suitable town infrastructure and the setting of reasonable rental rates.

Recommendation

9: Existing commercial tenancies should be rolled over for an interim period and new tenancies offered at realistic rental rates that are not prohibitive to the provision of vital services.

2.5.5 Aged Independent Living

The potential for provision of retirement housing for elderly people at Leigh Creek was raised as a possibility by two RFI proponents and several other individuals, during consultation on the RFI. The possibility of a community housing model rather than aged care proposition appears the most appropriate with rental payments being supported by the residents' Age Pension and various concessions.

It has been suggested that there may be demand from elderly Aboriginal people who may want to return to country and live in Leigh Creek, close to the hospital. There may be associated employment and training opportunities in this proposal and if there is a predominance of potential Aboriginal residents, then ATLA involvement or management of the project may be appropriate. A complete business case with an analysis of needs will need to be developed.

2.5.6 The Leigh Creek Caravan Park

Proposals have been received from local businesses expressing interest in leasing and managing the Leigh Creek Caravan Park.

The Caravan Park is currently managed by the Leigh Creek Progress Association. With the declining Township workforce and loss of active members, the capacity of the Association to devise and implement improvement strategies for the park has been reduced.

Alinta supports the facility and the profits are available for community purposes. In the future, however, utility costs and some rental charges will be levied so that the business model will need to change. An individual business holder who can enhance the business and give it more targeted focus and marketing may be preferable to community management in terms of mobilising the tourism potential of this asset.

The general guiding principles of the RFI should be applied in deciding any tender issued: developing Township vibrancy; activity and business enhancement to signal Leigh Creek is Open for Business; ensuring service tenders are weighted in favour of local business development; local employment and training; and encouraging strategies that grow visitation to the Township and surrounding regions.

For example, currently the Caravan Park and the Town qualify to be identified as an RV Friendly Town. This allows inclusion on websites and magazine products used by the 100,000 RV drivers on the road daily, who are each calculated to spend $100/day.[23]

The RV Friendly Town magazine, *The Wanderer*, is circulated on a monthly basis to a membership of over 66,000, with inclusion in this publication free to any RV Friendly Town. Free road signs are also provided to advertise the status of the town and permits can be provided from an open shop, whether it be the supermarket, garage or café. Charges can be set for use of the dump point and shower facilities at the Caravan Park. A relationship with an RV organisation would also present opportunities for further 'stepping stones' for RV travellers at farm stays between Port Augusta and Leigh Creek to attract travellers further into the Flinders Ranges.

2.5.7 Internet as Essential Service

It has been suggested by some commentators that many of the services currently provided in the Leigh Creek Township can also be accessed in Port Augusta and enjoyed online. This does not take into consideration the cost of fuel and the current lack of mobile coverage, nor the lack of broadband services in the hinterland.

Nepabunna snapshot

67 residents

No mobile telephone coverage

No email access

660 km round trip to Port Augusta

15 kindergarten/school children travelling 140 km round trip to Leigh Creek

This highlights the reality of communications and access in one nearby community.

Regional communities in the Northern Flinders Ranges and Outback have patchy mobile telephone coverage justifying the need for regional Townships to self-identify in the Commonwealth's *Black Spot* database. However, Leigh Creek has good Telstra 3G mobile coverage.

The region should work towards reducing the number of telephone *Black Spots* and any proposal to develop 3G booster stations should be promoted.

But the major challenge has been broadband coverage. Whilst public facilities have connections, there is limited capacity for the hospital to easily access telemedicine facilities such as radiography.

The Nationmal Broadband Network (NBN) satellite service will support local residents, medical provision and enhanced business models as soon as it becomes available. In the meantime, dish installation in remote areas depends on the local support for the system and could be encouraged as part of the Township transition to government control as a way of installing Wi-Fi hotspots.

Recommendation

10: Government considers Leigh Creek as a potential Wi-Fi hotspot location and explores opportunities with the NBN.

2.5.8 The Leigh Creek Dump

An RFI proponent has indicated a desire to manage the existing waste deposit site at Leigh Creek. The proposal is to improve the current waste management in the region, which is localised, informal and variable in performance, to achieve higher standards of recycling, better integration and an expanded regional service.

Ensuring that the dump can achieve best practice standards in waste management and recycling capacity and offer a region wide service, based at Leigh Creek, will have good environmental impacts and may also have positive flow-on effects for tourism and other economic proposals for the region.

OCA will determine how it will fund provision of services and the means by which costs can be recovered for services such as the dump, whether by contributions of residents if housing is sold, or through a government community service obligation (CSO) gap payment. The model chosen will affect the business model for this proposal, but should not adversely affect the potential for this proponent to offer management services in this area.

It will be important again that the RFI guiding principles, which emphasise the importance of supporting local business viability and local employment, are applied to consideration of this proposal and other commercial opportunities in the Township. These principles will encourage the future independence of the Leigh Creek Township and reduce future liabilities.

Recommendation

11: OCA gives immediate consideration to the RFI Proposal regarding waste management services.

2.5.9 Swimming Complex

The three-pool swimming complex is an outstanding facility, however, it is only open for about half of the year and lacks prominent external signage.

Visitors from colder climates and even Adelaide are surprised to find the pool shuts at Easter time and is heated in the summer by solar water heating on the pool complex roof supplying an underground tank. Other technological solutions may allow a more efficient pool heating mechanism to enable the town to move towards being a winter tourism destination.

Several consultations on the town amenities have highlighted the winter resort and health spa potential of the location. Such proposals, it has been suggested, might be based on the current Tavern and sports facilities, or configured at a separate location. Such large scale investment might work well with an associated artists' colony, much like those seen in Desert regions like Arizona in the United States.

In the short term, the lifeguard skills are depleted and there is a need to develop a business plan for staffing and managing the facility.

2.6 The Leigh Creek Airport

The Leigh Creek Airport is one of the best equipped and maintained facilities in the Outback. It has two sealed all-weather runways and is currently used by corporate and tourism charter flights, as well as the Royal Flying Doctor Service (RFDS) and the 3000 km Outback mail run.

This amenity is one of those that should be maintained to support the local economy as well as human services through the RFDS. It will be essential to underpin medical provision in the hinterland, support tourism growth and to service a larger employment base should any of the proposed and potential future industrial and resource developments at the mine site progress.

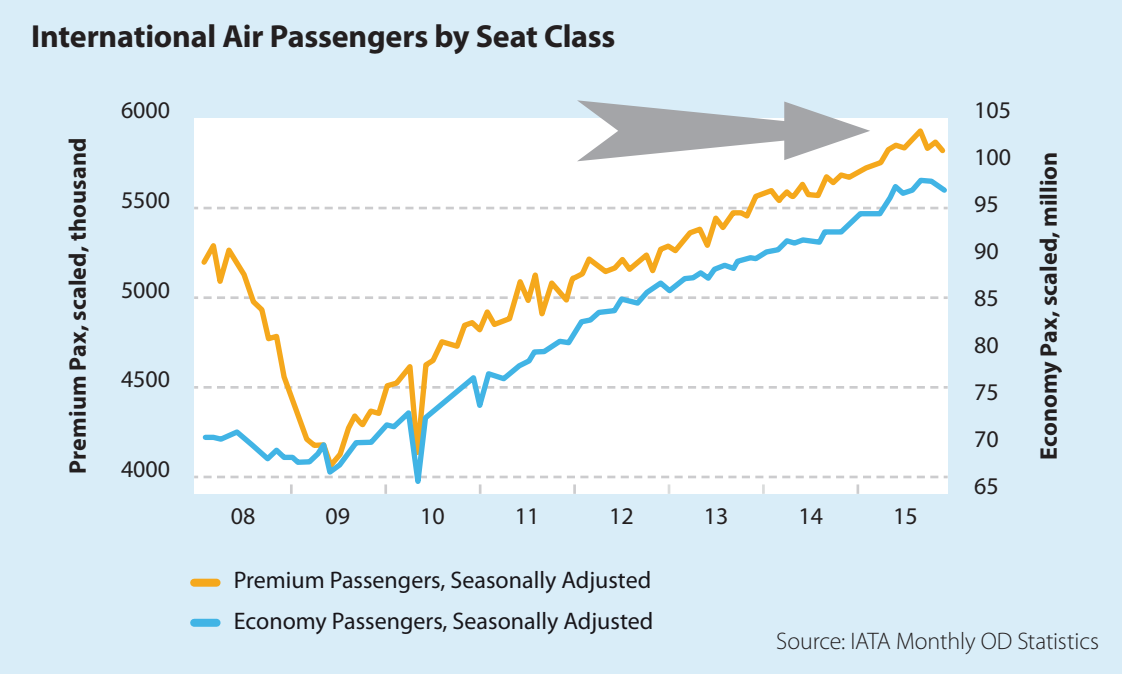
The airport has the capacity to accommodate planes such as the Fokker 50, Dash 8-300, Saab 340, Metroliner, Beech King Air and small business jets up to Falcon 50. In addition, the airport has a rare and highly valued refuelling facility that services the region. There is car parking, a passenger waiting room and multiple buildings suitable for administration and meetings.

A proposal was received through the RFI to manage the Airport. It included information on the possibility of using a regional airport as a base for the provision of airline pilot training and increasing opportunities for inbound tourism. The management proposal should be further explored, as should the related opportunities for inbound high-end tourism product development and as discussed below, pilot training.

2.6.1 Future Opportunities in Pilot Training

The development of new airlines and the appetite for international travel in emerging economies has resulted in growth in global airline traffic at a time when training is becoming more rigorous. There have been worldwide, although sometimes anecdotal, reports of looming shortages of pilots and maintenance technicians over the last decade with recent accounts of flight cancellations in Europe and the USA attributed to staff shortages.[24] A recent report released by Boeing, quantifies the skill shortage based on current staff levels and new plane production as being a deficit of 558,000 commercial pilots and 609,000 technicians.[25]

Whilst the global financial crisis and the current global uncertainty are aligned with dips in the rate of growth of passenger traffic,[26] the overall predicted shortfall in skills in the sector appears entrenched by a range of issues including early pilot retirement and a shortfall in recruiting and training new staff.



In South Australia, Parafield Airport has been used as a base for training pilots for several decades, whilst in Western Australia, the rural town of Merredin has been revitalised by recognising the economic opportunities of attracting a Chinese airline to establish its own flight training school.[27]

This airline also operates in Jandakot but has now been using the airport at Merredin for over 17 years.[28] The attraction for the airline was the offer by the local Shire of a peppercorn airport sale. The economic impact on the town of Merredin appears to have been significant with China Southern West Australian Flying College students (up to 100 at a time) injecting their discretionary spending into local shops, restaurants and recreational businesses with resulting employment benefits.

In Merredin, the airline had to invest substantial amounts of money to accommodate its facility. In contrast, Leigh Creek offers sophisticated airport infrastructure, surplus accommodation as well as clear skies and relatively empty airspace. Whilst the entertainment and amenities of a larger city are clearly limited in Leigh Creek, the town offers an authentic view of Australia, which may hold an alternative appeal. It also appears to be a possibility that a flight school could operate between Parafield and Leigh Creek offering students a dual campus structure with the benefits of both city and regional life.

The next steps would be to determine if a suitable business model for student accommodation, use of the airport meeting rooms and other facilities can be found. Further investigation is justified.

Recommendations

12: OCA considers options for management of the airport including suitability of RFI proponents and consideration of further commercial potential.

13: DSD and SATC nominate a representative to explore the potential for engagement of a private airline and furthering flight training and related tourism opportunities at Leigh Creek.

Leigh Creek Township, located in a picturesque part of the Northern Flinders Ranges, is a well-designed purpose built mining town, owned by the State Government.

3 Building Social Capacity

3.1 Who Will be Serviced by an Open Town?

The challenge in rethinking a small closed mining town is that without the primary employer one might ask if there is a reason for the town to exist.

However, commissioned studies and academic research into Leigh Creek plainly demonstrate the regional dependence on the services that have, over time, moved into the Township. If that infrastructure were to be lost, the region would be left without appropriate facilities.

A widespread community consultation commissioned by DSD in 2015 showed that Leigh Creek was as much used by hinterland occupiers as by town residents, providing the bulk of state and private services to approximately 500 business operators, pastoralists and community members in the hinterland.[29]

Based on this identified dependency in the broader region, coupled with existing government employees and town residents, the Township will be catering for 700 people into the future as a base figure.

3.1.1 The Potential for a New Operator at the Mine Site

Moreover, large-scale private investment involving the mine site and other industries is still a possibility for Leigh Creek.

In South Australia, unsolicited bids can be submitted to the Office of the Coordinator-General, which allows innovative ideas that have not been specifically requested by government to be considered in a confidential process.

There were several propositions submitted to the RFI process that are also being considered through the government's unsolicited bids process. These proposals could have a sizeable impact on the Leigh Creek Township in terms of demand for housing, use of facilities and the level of government and business service provision required should they progress.

Based on information provided by proponents, this potential impact has been quantified as much as possible into employment projections and housing requirements, which were considered by DPTI in transition planning for the Township.

With the completion of transition plans and greater certainty about the future of the Township, existing commercial interest may be expedited and the potential for attracting new commercial interest may also become more likely.

Recommendations

14: Government services be maintained but not expanded at this time.

15: The current focus on expediting all proposals related to Leigh Creek and surrounds continues to ensure any viable projects are not delayed.

3.2 Supporting Essential Services

3.2.1 Government Services

At the time of initial mine development in Leigh Creek, whilst ETSA may not have articulated the notion of corporate social responsibility, the eventual Township design standards, family support, and community contributions to amenity were outstanding.

Furthermore, the current operator has managed a multi-skilled workforce through efficiency measures and staff retrenchments but has remained as a good employer and generous custodian of the community assets.

Throughout the 75 years that the mine has operated, there is no doubt that the staff in the Township have enjoyed a high standard of living and exceptional services. Facilities have been maintained and additional requests for social amenities, whether for sports facilities or a childcare service have been supported.

The female partners of mine workers have generally worked in childcare, retail, health and education services in the Township. With the decline in population, staffing of some vital services has reduced and, in some cases, ceased altogether.

Leigh Creek has a Department for Education and Child Development (DECD) Kindergarten adjacent to the Area School and previously had Family Day Care services and a fully-funded Alinta staff Child Care Centre. Currently the former licensed Family Day Care services and Child Care Centre are closed as all the trained staff have left the town. This has made it difficult for the staff of the school and businesses to work effectively, with informal and tenuous child care arrangements now the only option for families.

It seems unlikely that sufficient demand will exist for a separate Child Care Centre in Leigh Creek unless there is significant growth in the employed and resident population. However, there is a need for a small number of family day care places. Co-locating care at the Kindergarten might also be viable in the future but would require additional trained staff and may require infrastructure improvements to accommodate children from birth to four years.

Recommendation

16: DECD examines the regional need for early childhood education and care particularly for Aboriginal children and the options available at the Kindergarten school site to better support care provision and employment in the region.

3.2.2 Volunteers and Emergency Services

Leigh Creek has played a significant corporate and voluntary role in providing services to the wider region. Certainly the provision of emergency services in the area has benefited from the skills in the mining community. However, the downsizing of the mine workforce has left a significant skills gap and now a crisis in these services.

Whilst there have been many decades of active volunteering in support of sporting club programs and emergency services, the roster changes have seen families increasingly live off-site with staff driving in for duty rosters.

Subsequently, the nature of the closed town has moved closer to the more common DIDO model than the full service town that was designed.

This has reduced the amenity provided in the town and the availability of volunteering support for school sports and recreational clubs, perhaps at a faster rate than the population and employment decline alone might have dictated.

The Township population will fall further as the closure and rehabilitation plan is agreed and implemented. Older workers, anecdotally, have bought homes further south and are able to move, whilst younger families are more likely to remain in the subsidised housing offered until November 2016, perhaps seeing out the school year, while breadwinners move to find jobs elsewhere. This has resulted in more than just a loss of mine workers, but also a loss of skills both in the paid service sector and in a range of volunteer roles.

The loss of volunteers in a small and declining population, where trained and skilled individuals often occupy multiple roles, can rapidly tip a community into crisis.

Tipping Point Example

K has worked at the mine for 11 years. He has a wife, M, and 3 children.

K moves to Queensland to find a job.

The town loses its football coach and an ambulance driver.

M continues to work at the childcare centre but has to drive her son to Orroroo every Saturday for football.

The whole family moves and the staffing ratio at the school alters resulting in a 0.5 FTE reduction in teaching staff.

The childcare centre closes and there is no care in town.

Women in the Township are unable to access care to attend employment or volunteer.

This example is a combination of stories from the community and demonstrates how the decisions and actions of one family can act as a tipping point affecting the whole community.

3.3 Moving Toward a Regional Service Centre

The notion of Leigh Creek being a town that already services a broad regional base has been obscured by its closed, inward nature. By precluding access to housing beyond town employees, there has not been encouragement of the genuine involvement of hinterland residents and Aboriginal communities in decision-making, volunteering and broader use of infrastructure and services.

Communities in the hinterland of Leigh Creek have joined the electricity grid, benefited from the Lyndhurst pipeline and were able to access the sporting clubs in the Township, all of which were built and maintained by either ETSA or subsequent lessees. However, while they have had access to some of the town's amenities, they have not always been welcomed as contributors to the town.

The Adnyamathanha people are acknowledged to be the Traditional Owners over a large area in the north of the state – from the shores of Lake Torrens through the Northern Flinders Ranges towards the New South Wales state border.[30]

However, at the time of the Leigh Creek Coal Act (1942), there was no recognition of Aboriginal Land Rights or Native Title and the enabling mine legislation did not consider these issues.

South Australian Regulatory Guidelines now make it possible for determinations to include matters such as indigenous regional business development and mentoring as well as employment and regional service provision.[31]

Had such opportunities existed previously, Aboriginal communities might have more fully benefited from the activities in Leigh Creek in terms of both housing and employment.

3.3.1 A Broader Community Base

In order to ensure that the Leigh Creek Township can transition into an open and independent community, there is a pressing need to nurture capacity and community within and beyond the Township. This is critical in relation to the volunteer based emergency services but also affects the services to the school, the sports clubs and the more general capacity for local ownership and leadership.

The Leigh Creek Progress Association has been diminished and the remaining residents are stretched. There is little appetite to have this group amalgamate with Copley Progress Association but in the future, community cohesion can be nurtured by supporting regional community projects.

That being the case, community leadership and involvement should be more widely distributed across the hinterland to engender ownership, responsibility and capacity.

A recent announcement of a lack of Ambulance Volunteers was overcome by the generosity of external volunteers from south of the state. In the future, residents in adjoining communities will need to play a greater role in supporting emergency services. Greater collaboration between various emergency service organisations will also need to be fostered with joint training initiatives, staff and resource sharing.

It is encouraging that several individuals from outside Leigh Creek have recently begun a specifically-developed ambulance volunteer training program and the driving forces for other community initiatives have come from Copley and Beltana.

Moreover, while the possibility of activity by a range of resource and industrial operations on the mine site may provide a new population base, their enthusiasm for volunteering cannot be taken for granted and will require active encouragement.

In the future there is potential to include greater regional, social, economic and environmental benefits in the approval process for mine site activity. Government also has an opportunity to determine the shape of any potential management or use of the Township, including broader community service obligation requirements for any new company entering Leigh Creek. Even in the preliminary testing and demonstration phases of proposed projects there is the possibility that proponents could make a financial contribution to a community service fund. This should be further investigated.

3.3.2 Investing in Community Building

Several community projects have either already been developed or have been proposed for the future and should be supported and seen as community building. In addition, there are a range of local amenities, recreational facilities and programs that have previously benefited from ETSA or Flinders Power Partnership (FPP) sponsorship.

Ongoing resources are required to support the Aroona Sanctuary feral animal management system, Staying Alive fruit tree watering program; training of lifeguards for the swimming pool; family day care operators; and First Aid programs.

The *Staying Alive* project has involved local residents from nearby communities mapping established fruit trees in vacated residential premises and developing an App to assess productivity and water requirements. This project aims to provide local fresh fruit, but requires access to water.

The local community has also advocated strongly for the Retention Dam to be retained as a site that is used by the local community. The remodelling and future design of the Retention Dam is the subject of ongoing negotiation and planning, which largely centres on the management of the mine site. However, at some stage a management, rehabilitation and associated employment plan for the Dam area will need to be developed and may include ongoing community use. Regardless of the outcome, communication should occur with the broader community on the future of the Retention Dam as a valued community resource prior to release of the Mine Closure and Rehabilitation Plan.

Any further use of the existing buildings at the Leigh Creek Area School will also need to consider the broad community use of the Library, which though based at the school, is used as a facility for the whole region.

Recommendation

17: Government negotiates with Alinta for a co-contribution to a social development fund to continue support of local community initiatives and broader programs such as that operated by Zoos SA at the Aroona Sanctuary.

3.4 Governance

The key guiding principle that applies to the future governance model for the management of Leigh Creek Township is the need to ensure inclusive decision-making by promoting local leadership, community involvement beyond the Township, and the direct representation of the Adnyamathanha Traditional Owners.

It is possible, despite the potential considered in the next chapter for increased visitation from tourism growth, educational or camping trips or mine site activity, that hinterland residents will remain in greater number than permanent residents as users of the services provided at Leigh Creek.

Broader ownership of the Township is therefore required to ensure that Leigh Creek can move successfully from being a closed government owned town into an open, regional service town with eventual independence.

Efforts to encourage residents outside the currently closed town to become active stakeholders in the future of Leigh Creek are an important part of this transition.

To formalise this principle, it is contended that a regional advisory structure should be established beneath the overarching management role of the OCA to reflect the views of those with most interest in the Township including representation from adjoining settlements and ATLA.

3.4.1 Outback Communities Authority Governance

OCA is already responsible for a broad expanse of the South Australian outback covering 625,000 square kilometres (63% of the State), which is home to approximately 4,500 people. OCA is enabled by the Outback Communities (Administration and Management) Act 2009 to manage the provision of, and promote

improvements in, public services and facilities for outback communities. This already includes the promotion of sustainable infrastructure to service the needs of government workers, local businesses, members of the public and tourists. OCA currently assists other remote communities with provision of water supplies, invests in municipal services such as town facility maintenance and maintains a network of outback airstrips to ensure emergency access for remote communities.

OCA has the established capacity to have involvement in the management of the Leigh Creek Township as a regional service centre, providing amenities to government workers, surrounding communities and visitors to the Township. However, government may also need to consider an alternative framework to support OCA management including involvement of the RDAFN and some local government entities. This may include additional funding for positions based at OCA or at the RDAFN to assist with Township transition, commercial infrastructure management and innovation, tourism opportunities and cultural and arts based community development initiatives.

It will also be important that a structure within State Government is determined that identifies senior officers across a wide range of agencies as the single contact point on Leigh Creek. In addition, reporting lines and clear communication channels need to be established between OCA, State Government and the Township residents and surrounding communities so that changes can be consulted upon and communicated in a clear and timely manner.

3.4.2 An Enhanced Governance Model

If the Leigh Creek Township is to transition from being a closed, company town to an open regional service town, it will be necessary to ensure that the local community, in particular the Adnyamathanha people, are participants in decision making.

In terms of governance through the transition phase to an open town, it is imperative that OCA continues to apply some of its general strategic commitments, summarised below, in a transparent and demonstrable manner to the management of Leigh Creek.

- Support for a hybrid governance model that lies between local government and community management.
- Encouragement for self-control of those living and invested in the local community and to representation of the needs and vision of residents.
- Openness to innovative approaches to business management, tourism opportunities and further developments in the town including investment opportunities.

To meet these commitments, it is important that key elements underpinning the social fabric of the Township are encouraged and fostered to ensure cohesion and the capacity and willingness for growth into the future. These include the voluntary initiatives that have been described and future community-led initiatives that may arise. It also includes reflecting, in governance structures, the broad 'ownership' of the town and its services by surrounding townships and communities.

Although town property will attract a new town service charge, it will also receive a level of government CSO. The town assets are the commonwealth of the hinterland and there is the need to see the residents as being distributed across the region and the Township as their regional Town Centre.

Local leaders in the surrounding towns and members of the Adnyamathanha community need to be engaged at the earliest opportunity in discussions about the future of the Township and a mechanism considered for establishing a regionally representative community structure to assist OCA.

It is suggested that the success of the transition to governance of an open regional town should be reviewed no later than July 2018 to ensure that local decision-making and representation of both hinterland stakeholders and local residents is being reflected in decisions regarding the Township.

Recommendations

18: A community management structure is established that ensures Adnyamathanha representation and local and surrounding community involvement of the Leigh Creek Township.

19: Government sets a review date to assess the transition process, town governance and all unsolicited bid proposals related to Leigh Creek of no later than July 2018.

3.5 Commercial Opportunities: ATLA

While Government has determined that management of the whole town will be the responsibility of OCA, ownership or management of key infrastructure and services in Leigh Creek could be undertaken by ATLA, with various training and income generating projects pursued. It is important that OCA supports the democratic aspirations of those living and invested in the local community in substantial ways that incorporate the opportunity for economic self-sufficiency.

Indigenous Business Australia (IBA) has already partnered with ATLA as owners and operators of Wilpena Pound Resort, which now have Adnyamathanha cultural experiences as part of the Resort's visitor offering. The other key success here that could serve as a useful model for Leigh Creek is the achievement of 58% Aboriginal employment.

There may be the potential for some Township business opportunities to be the subject of development and investment by IBA or the Indigenous Land Corporation (ILC) as ongoing commercial concerns for management by ATLA. Such opportunities could be explored further by ATLA.

3.5.1 Town Maintenance

In accordance with the RFI Guiding Principles, town maintenance provision should be weighted in favour of local providers and it is important that current locally provided services continue, that those employed remain in employment and that their future accommodation is secured. Government should offer assurances that local businesses will be supported and leases rolled over and renegotiated in good faith.

As part of this emphasis on local provision, it is also important that in tendering for any new provision of services a proportionate number of local Aboriginal people are employed.

3.5.2 Employment and Training

Several programs and services already exist within DSD targeting improved rates of Aboriginal employment and training, which could be harnessed to provide better support and opportunities to Leigh Creek and regions. These include the Aboriginal Apprenticeship Program and WorkReady Jobs First Employment Projects, which could be targeted toward Leigh Creek and surrounding communities. Through the government's Industry Participation Policy (IPP), State Government agencies could also be asked to identify opportunities in their forward procurement plans for the Leigh Creek area and apply the IPP's 20% weighting for tenders above $220,000 in favour of contractors with high level Aboriginal employment plans or subcontracting from Aboriginal businesses.

For tenders less than $220,000 agencies could be encouraged to use the Aboriginal Business Procurement Policy, which creates a procedural exemption when procuring from a South Australian Aboriginal business.

The government's recently released Aboriginal Business Connect register could support the identification and engagement of local Aboriginal businesses. Finally, given the success that Building Family Opportunities (BFO) has in reaching Aboriginal families, a regional application of BFO could be built for Leigh Creek and surrounding areas targeting Aboriginal jobless families.

3.5.3 Housing

There may be an opportunity under the Aboriginal Regional Authority (ARA) model for ATLA to play a role in the delivery of housing services in the Leigh Creek region, which may include the provision of housing maintenance and administration services to Aboriginal residents. Any such arrangement would only be agreed in the context of the government's broader approach to housing to be devised within 12 months. The desires of ATLA, consultation with the broader community, and the capacity of the organisation to deliver the services would also need to be considered.

Recommendations

20: in consultation with ATLA, explore the potential for housing management opportunities.

21: Any new leasing arrangements for businesses in Leigh Creek include the government procurement standard of 15% of Aboriginal employment.

22: ATLA considers developing commercial proposals for management of key services in Leigh Creek.

Leigh Creek has a unique cultural, social and political history. It has nurtured a multi-generational and multicultural resident community during the last 70 years and engendered an extraordinary level of state-wide respect, pride and gratitude.

LEIGH CREEK

Situated to the west of the picturesque Northern Flinders Ranges, the modern outback township of Leigh Creek was originally created to house workers from the nearby coal mine but is now a popular base from which to explore the region's natural beauty and its rich Aboriginal heritage.

Many travellers visit Leigh Creek as they drive north towards Alice Springs and beyond. It can also be used as a base before heading out on day trips to Beltana, Copley, Lyndhurst and Farina. With its excellent range of facilities, including a supermarket, petrol station and shops, this outback oasis in the desert is the obvious place to break your journey before re-joining the Explorer's Way.

For others, the big drawcard is the nearby Ediacaran fossil site, dating back some 600 million years. There is worldwide interest in the large reefs of stromatolites, understood to be the earth's oldest fossils, found in the ancient ranges. The only other place they exist is in south-west Africa.

Built by the State Government in 1982 to support its own electricity company, Leigh Creek also provides easy access to a number of popular regional attractions such as the Prairie Hotel, Arkaroola Wilderness Sanctuary and The Iga Warta Experience – an introduction to the people and the culture of the Adnyamathanha land.

Nature lovers will also find much to delight them. The Aroona Dam Sanctuary offers spectacular views and peaceful surroundings for a picnic lunch. It also has a wonderful 5.5 kilometre interpretive walk, which starts below the main wall of the 5000 megalitre dam, the largest of its type outside of Adelaide. The trail traverses wetlands below the dam, mountainous terrain, rocky outcrops and red-gum lined creeks.

The Northern Flinders Ranges provides the opportunity for all kinds of adventures, from hiking to mountain biking, scenic flights and birdwatching expeditions. You might even see the endangered Yellow-footed Rock wallaby which were released into the area in 1996.

With its tree-lined streets and modern amenities, including a public swimming pool, Leigh Creek also provides welcome relief from the summer temperatures in this part of the world, where the mercury can climb into the high 30°Cs. Winter time provides pleasant day time temperatures around 18-20°C and as the area is in an arid zone, there is low rainfall. The town was built to the highest environmental standards and

Extract from 2016-17 Flinders Ranges and Outback Visitor Guide (pp.42-43)

Leigh Creek is a popular base from which to explore the region's natural beauty and its rich Aboriginal heritage.

Aroona Dam Sanctuary

is a model of arid land urban development. So much so that it became a destination for visiting international town planners.

After 70 years of continuous operation, the current lessee Alinta Energy made the decision to close the mine in 2015 and will hand the town back by 2018. Leigh Creek is now carving out a new future for itself. Already established as an important regional centre, the town is also becoming a tourism hub.

The town's access to remarkable geological sites, stunning natural landscapes and a living Aboriginal culture is certainly one of its great drawcards. The other is the high standard of facilities available to the traveller here.

In addition to essential services such as a well-stocked Foodland supermarket, post office and service station, Leigh Creek also offers an impressive list of recreational facilities including a swimming pool, gym, theatre and sports complex. The town has good fast internet and Telstra mobile coverage too.

Leigh Creek provides emergency services including a hospital, Royal Flying Doctor Service, police station, ambulance, fire service and State Emergency Service (SES).

Accommodation options include the Leigh Creek Tavern and the Leigh Creek Caravan Park. The tavern offers 24 hotel rooms, 40 cabins and a full-service restaurant, while the Leigh Creek Caravan Park has ensuite cabins, powered sites, a laundromat, a camp kitchen, barbecue facilities and a van dump point.

LEIGH CREEK CARAVAN PARK

Nestled at the foot of the Northern Flinders Ranges, the Leigh Creek Caravan Park is an ideal stop off point to relax, explore the local surroundings and then stock up before continuing your Outback holiday.

- Unpowered/powered sites • Ensuite cabins
- Backpacker cabins • Disabled toilets and showers
- 24 hour laundromat • Pet-friendly • Communal TV/ lounge room • Camp kitchen • Free barbecue facilities
- Free Dump-Ezy

Acacia Drive, Leigh Creek
Mob: 0429 012 445
www.leighcreekcaravanpark.com

The following immediate actions have been taken:

- The government Website and Facebook Page have been updated to Leigh Creek Futures (from a link through USG&O) to ease search capacity and improve content.
- SATC has given a greater prominence to the town's amenities in its latest marketing brochure and online material.
- DPTI has installed road signs previously saying Copley and Leigh Creek now saying, Copley and Leigh Creek Both Open for Business.
- SATC and DECD supported a Penguin Random House Series book launch set in Farina and Leigh Creek by the Minister for Education and Child Development at Leigh Creek Area School. The event had positive television coverage on 'Sunrise' (Channel 7) and was associated with a marketing and media flight over the region.
- Discussions commenced with the South Australian Film Corporation and specific independent filmmakers regarding greater use of the region for filming locations.
- Registration for RV Friendly Town status provided to Progress Association.
- Initiated an Artist in Residence program for Leigh Creek, developed with Country Arts SA, supported by Alinta and funded by Arts SA. The program allows artists to create artwork, hold community workshops and add vibrancy to the main street in the Township.
- Negotiated a university field trip to Leigh Creek with economic impact locally of $21,050.

4 Revitalising Leigh Creek

4.1 A New Purpose for Leigh Creek

When announcing the RFI inviting industries to put forward their ideas for new business ventures in the Leigh Creek region, the Premier recognised the widespread role of the town in the regional economy. In particular, he emphasised its location in a particularly picturesque part of the Northern Flinders Ranges in the midst of the neighbouring communities of Beltana, Copley, Lyndhurst and Farina, Nepabunna, and Iga Warta.[32]

At that time the Premier noted that there was enormous potential for new industry and tourism in the region and that the town was also on the main travelling route leading to the Birdsville and Strzelecki Tracks. He further observed that the main tourism potential of the Leigh Creek Township itself revolves around the Tavern, Airport, Leigh Creek South Motors and the Caravan Park, with the Aroona Dam Sanctuary and the mine itself also having potential for future tourism ventures.

Occupying such a picturesque and culturally rich location in the centre of a significant tourism region there is a major capacity for Leigh Creek to be a hub for local activity, and a resource for travellers and local businesses.

However, it is worth recognising the seasonal nature of tourism in the Outback and the advantages of ongoing mine site activity in offering the Township year round economic opportunities. Peak tourism activity is between March and October with some regional operators actually closing during parts of December and January when occupancy levels are around 35%.[33]

4.1.1 Building on the Strengths of the Region

Leigh Creek's major tourism attractions are the location and the opportunities to support and promote surrounding assets such as Aboriginal cultural tourism, eco-tourism and fossil tourism. Several pastoral properties have diversified to leverage off the history, built heritage and cultural experiences with joint marketing and in some cases extensive collaboration. Such initiatives are synergistic: both using and supporting Leigh Creek businesses.

Educational Tourism is a significant and realistic opportunity for the Township itself.

In 2013-14, the tourism sector accounted for 5.2% of regional employment and directly employed approximately 1,400 people in the Flinders Ranges and Outback economy representing 6% of gross regional product.[34] The Tourism and Regional Development portfolios both identify regional tourism as important areas for growth with input by SATC, Regions SA, Local Government and the RDAFN supporting the sector.

This reflects the State's Economic Priority *South Australia - A Growing Destination Choice for International and Domestic Travellers*.[35] It also supports the State Strategic Priority of promoting *Premium Food and Wine from our Clean Environment* since the region has an increasing focus on high quality regional food production and bush tucker ingredients.[36]

The potential to expand tourism activity has been recognised since the previously named Tourism Department developed a report entitled *Leigh Creek Tourism* in 1984, but there has until now been a conflict between the opportunities in the region and the desire for a closed town. This is no longer the case.

The SATC's current *Destination Action Plan* targets an $8 billion industry sector by 2020 suggesting that in this region, the current visitor expenditure of $340 million to December 2015 needs to rise to $369 million in 2017 and $452 million by 2020.

Data shows that currently, half of all domestic visitors to the Northern Flinders Ranges are from interstate. International bed nights are predominantly generated by European visitors who make up the largest cohort, stay the longest and are mostly under 44 years of age.[37]

The most regular visitation to the area is by self-drive, independent and RV travel with caravan and camping enjoyed by 35% of domestic and 55% of international tourists, who themselves account for 7% of the total visitor numbers.[38] A high-end and bespoke fly-in range of products appeals to a smaller cohort attracted to the same assets but in a shorter time frame. Air based tourism focuses on authenticity and the unique selling proposition of the Outback.

Already high net worth tourists can land at Leigh Creek Airport, seeking authentic experiences with a focus on the Outback, Adnyamathanha cultural tours, pastoral history and fossil tourism.

The region currently boasts some stunning bespoke fly-in cultural Outback tours with assorted stays at high end facilities both locally and, for instance, on Kangaroo Island at Southern Ocean Lodge.

http://www.thetailor.com.au/rmwilliams/

4.2 Future Narratives in the Outback

The core of tourism marketing is story telling. It is about emotion. The SATC has always done this well with creative campaigns making promises and delivering authentic experiences, whether in the arts, gastronomy or the environment. In staking ownership of an experience it needs to be genuine and have local resonance but it is sometimes necessary to make bold assertions.

Reimagining Leigh Creek as a modern, resilient and sustainable community requires the Township's purpose to be rethought and a new narrative to be told.

The future regional narrative surrounding Leigh Creek has several threads that can provide the stories essential to market the region as a world class tourism destination. These narratives have been teased out from the consultations held, proposals made and current areas of regional strength.

They are:

- **Owning the Outback and Claiming the Gateway**
- **A history and future role of Leigh Creek in a low carbon economy;**
- **The pre-eminence and ongoing role of Adnyamathanha culture in the area;**
- **Leigh Creek as a gateway to Ediacaran first life on Earth;**
- **Leigh Creek as the place to experience arid land nature like nowhere else.**

These thematic elements should form the basis of a narrative that can be reinforced by urban design guidelines, educational and art installations, and design features as well as being the subject of tours. Rather than a bricks and mortar 'museum', consideration should be given to complementary digital and technological ways to speak to visitors, particularly in the Town Centre.

The investments in these key tourism themes can be the subject of progressive implementation based on local capacity, public investment in urban design interventions and private investment.

4.2.1 Owning the Outback: Claiming the Gateway

South Australia can be bold in asserting ownership of the Outback.

Historically South Australia has had *Australian Major Events* positioning itself as the Australian go-to event organisation. *The Great Australian Cattle Drive* claimed to be THE outback experience and used the icons of the Outback in marketing. The *southaustralia.com* cycle team used the red dirt and blue-green landscape of a Heysen landscape to infer not only a location, but that South Australia actually owned the Outback.

South Australia could more boldly assert its claim to be the prime location to explore Aboriginal cultural experiences, pastoral and mining history as well as arid regions ecology by claiming ownership of the Outback.

Additional destination development locally could help businesses grow and additional marketing might allow international tourists entering through east coast air gateways to fly direct to Leigh Creek to experience the Outback and join similar niche tours.

The region surrounding Leigh Creek can be seen as the genuine Outback and has an emotional pull and could be marketed as one of South Australia's great unique selling points.

One of the proposals specifically identified the use of Leigh Creek as a gateway for international tourists seeking Outback experiences, but such an opportunity could involve a range of products and both local and regional assets.

Consideration should also be given to renaming the airport in a way that asserts ownership of the Outback and highlights its global and cultural significance. The naming should claim ownership of the Outback, assert International status and, following consultation with ATLA, might appropriately include an Adnyamathanha name.

Recommendation

23: SATC investigates opportunities to Own the Outback by changing the Leigh Creek Airport name and linking it with international gateway airports to connect local Aboriginal, pastoral, and fossil tourism operators with international inbound flights.

4.2.2 Renewable Futures

There is an elegant symmetry in Leigh Creek moving from a brown coal mine to a low carbon future. The location can tell a story of a century long search for coal, energy insecurity during the time of war, and eventual government intervention firstly to generate coal fired electricity but now to move into a renewable era.

This overarching narrative for Leigh Creek's Future could build upon and align with South Australia's pre-eminence in renewable energy assets. This state produces 39% of its electricity from renewable energy, has 41% of the entire nation's wind energy production and is a national leader in domestic solar installation. This has been achieved through focussed policy development and regulatory certainty as explained in the recently released Low Carbon Investment Plan for South Australia.[39]

The Low Carbon Investment Plan supports the first of the State Government's 10 Economic Priorities, *Unlocking the Full Potential of South Australia's Resources, Energy and Renewable Energy Assets* and sets a target of increasing the proportion of electricity generation from renewable energy sources to 50% and reaching a $10 billion investment level by 2025.[40]

The South Australian Government has committed to technology demonstration on its own assets as well as by sponsoring its use by others, and since the State is the sole property owner in the Leigh Creek Township there is a window of opportunity during which it can facilitate a range of innovative local solutions involving Township infrastructure.

As much of the world moves towards a low carbon, post-coal era, South Australia has chosen to be an early adopter and can reimagine Leigh Creek as part of a low carbon future. This vision certainly has broader regional appeal with Port Augusta recently articulating its intention to progress developments in the area of renewable energy.

Against a backdrop of reductions in coal fired electricity generation, the cessation of coal mining in Leigh Creek and the closure of the Playford power stations, there is an opportunity for Leigh Creek and other regional communities to seek a new and more sustainable economic future. There are already multiple programs in regional centres but there is symbolism in such a change occurring in a former coal mining town.

Several proposals to the RFI reflected on the rich solar resource in the area, suggesting a renewable energy future for the Township involving a range of technologies, including the possibility of Leigh Creek being a test site for new technology. The proposals submitted are linked to other concurrent propositions within Government, which are proceeding in parallel and have yet to conclude.

In the last 15 years South Australia has become increasingly sophisticated in managing renewable incentives and projects based on clear deliverables and better market impact modelling.

Current examples of ongoing research and innovation have been the recent State sponsored solar battery tender and the Australian Renewable Energy Agency (ARENA) $1.4 million investment in a University of Adelaide project to build a battery energy storage testing facility.

Within this context, it may be timely for Leigh Creek Township to present itself as a small contained system where projects can be tested. The possibility of the Township being a test site for energy storage, or local grid technologies could be considered further. The well-developed network of unused roads on the periphery of the Township might also be a location for testing driverless electric cars.

One recent program on Kangaroo Island (KI) embarked on a contained and innovative Visible Solar Project when Regional Development Australia and the District Council were awarded $500,000 by the State Government in 2011. This project allowed for the provision of a 50kw, 4 dual axis Solar Photovoltaic (PV) tracking system at the airport and a 14kw Solar PV system at the Town Hall. In addition, there was provision of two electric hire cars and six recharging points.

In the five years since the KI project began, there has been a reduction in technology costs and further technological advances, so that now there is greater capacity to encourage further innovation and investment.

As part of the State's Low Carbon Future, Leigh Creek could embark on a similar strategy to that on KI and display visible renewable projects with recharging points and electric hire cars as part of a strategy for regional areas.

Such activities would feed into the tourism narrative messages about clean energy and innovation whether Leigh Creek becomes the site of a visible renewable project or an innovation technology trial site.

Local interpretive material and explanation of the low calorific value of brown coal compared with the low carbon ways to generate electricity can be linked to the political history of the mine and broader sustainability measures such as the original historic design features used in planning the town and the arid land planting regime.

It is envisaged that just as Leigh Creek South was a focus for site visits and professional studies, this arid land location could again have development controls and investment focussed on mechanisms to display the town's sustainability.

Recommendation

24: DSD and Renewables SA advise on the potential for renewable energy projects and storage schemes that are visible and may produce long term benefit to regional areas, with consideration given to Leigh Creek as a potential new technology trial site.

4.2.3 Aboriginal Culture

Leigh Creek is located in an area of great Adnyamathanha significance and knowledge. The community, ATLA, has significant enterprises managing pastoral leases and operating, via Accor, Wilpena Resort which has recently together with the Flinders Ranges adopted an Aboriginal name, Ikara, meaning a meeting place.[41]

In addition, there are pastoral lease holdings and co-management agreements. While some community members operate long established private businesses like Iga Warta, other community members have established fledgling tourism ventures in the Township of Nepabunna.

The Leigh Creak Area School has a predominantly Aboriginal enrolment but the town does not have any visible Aboriginal names, iconography or cultural identity and this failing should be corrected.

The Minister for Tourism has recently identified the need to build upon Aboriginal tourism activity in South Australia with new product development, mentoring and greater investment. Meanwhile the Minister for the Environment has signalled support for Nature based tourism as a means of enhancing community support for the environment and generating employment and wealth.[42] The Leigh Creek region presents many opportunities for implementation of these policies.

New business should not replicate or undermine the local Aboriginal businesses or investments but Leigh Creek should better promote Adnyamathanha Culture. For example, following consultation through ATLA, the town could be included as a hub in an interpretive trail, accommodate appropriate businesses as well as direct visitors to local opportunities to engage with Aboriginal culture.

Recommendation

25: The SATC should continue to develop a trail of aboriginal cultural products with Leigh Creek serving as a Hub to encourage travellers to explore locations locally and into the Northern Territory.

4.2.4 The Origin of Life on Earth

There are few places on Earth that so accessibly demonstrate the history of life on Earth as the fossil record and geological formations in the Leigh Creek region.

The quality, range and accessibility of South Australia's fossil record is remarkable in its scope but the Northern Flinders Ranges and Outback region is regarded as arguably the best global location to study the record of the first recognisable life forms on Earth.

This assertion is hard to fault. Ediacaran fossils are the oldest known complex animals dating from almost 600 million years ago and are seen as sea bed imprints of the earliest motile animals showing the first evidence of sexual reproduction.[43] Their presence has captured the palaeontological world's attention and merited frequent visits by Sir David Attenborough both alone and with film crews (*First Life in the Flinders Ranges*) as well as annual student research trips lead by Professor Mary Droser from the University of California.

The first species was identified by Dr Reg Sprigg close to Leigh Creek in 1946 with more recent interest being centred on Nilpena Station where the owners have been assiduous in protecting and conserving as well as promoting the fossils with the support of scholarly activity by the South Australian Museum (SA Museum).

In 2005, the region became unique in Australia by defining a new geological time division, the *Ediacaran Period*, named after a local geographical location.[44] This was the first new geological period declared in 120 years and the only one in the Southern hemisphere. The region is further honoured by hosting a *golden spike*, marking the site of stratigraphic transition at the base of the period.[45]

Understanding of this fossil record has been endorsed by international experts, niche tourism at the field site and by SA Museum researchers. In addition, corporate and individual supporters have funded the Sprigg Lecture Series and the development of an Ediacaran Gallery at the SA Museum.[46]

Currently, eight universities use the Northern Flinders Ranges for graduate and undergraduate field experience courses in addition to specialist groups, especially from North America and Europe, who are engaged in long-term field research on the geological formations and fossils. Whilst the advanced studies are likely to be carried out in Adelaide, there is both a need to store bulky and heavy material, in particular fossil discoveries, closer to the site and provide some space for laboratory and technical preparation.

To capitalise on the opportunity to promote and develop more fossil based educational and tourism products, a strategy will be required to protect, secure and manage the fossil site and invest in interpretive infrastructure.

The wide range of opportunities in terms of global interest and local education should not be underestimated. South Australia may not have a dinosaur past, but the educational and intellectual insights generated by the first life forms on Earth can inspire individual visitors through life-changing experiences in the field or the classroom and allow them to recognise their place in the cosmos.

Site visits to the fossil field at Nilpena Station, approximately 35 km off road, will tend to be for the enthusiast but Leigh Creek could be used as an educational and research hub as well as a centre to service the local activity and provide public fossil displays and high quality interpretation.

Leigh Creek should adopt the region's fossil record as a narrative to be told, and promote evolutionary science using palaeontology and geology, with evidence and data available. There is a case for enhancing local knowledge of the significance of the Ediacara fossils and potentially producing national school curriculum content.

Regional communities often fight hard to raise funds and obtain grants to build a range of national centres or focussed museums, which rarely gain recurrent funds and are difficult to staff with volunteers where populations are thin. Such infrastructure has little capacity to be self-funding or employ staff and should be avoided in Leigh Creek.

An appropriately sized public interpretive installation with technological enhancement could add to the activities and vibrancy of the Town Centre while a separate multipurpose laboratory and storage facility could be developed for school and educational visits at the Leigh Creek Area School, which has excess infrastructure.

4.2.5 World Heritage Listing

There is a case being made by palaeontological enthusiasts that investment should not only be in Ediacaran interpretation with research engagement, education and high end cultural tourism but also in the broader landscape across the Northern Flinders Ranges and Outback where there is a wide range of fossil icons with the potential to warrant World Heritage Listing.

South Australia already has significant fossil assets in the 515 million year old compound eye bearing animals in the Emu Bay Shale, megafauna in Flinders Chase and Naracoorte as well as the unique opalised animal fossils from the ancient *Eromanga Sea* near Coober Pedy.[47]

Under the auspices of the Department of Environment, Water and Natural Resources (DEWNR), Flinders Chase and the Naracoorte Caves have been established as significant tourism destinations with the latter representing South Australia's sole World Heritage UNESCO site, joining Riversleigh in Queensland to be designated Australian Fossil Mammal Sites (AFMS).[48]

World Heritage Listing requires host governments and communities to make a complete commitment to protect a site, which must meet at least one of the prerequisite criteria. Riversleigh and Naracoorte both fulfilled two criteria for World Heritage status. Listed fossil sites must also represent major stages of Earth's evolutionary history, display significant ongoing geological processes and the evolution of life on Earth, and be the best example of such a site.

Following investigation of the proposal to seek World Heritage Listing, the submission may focus on the Ediacaran Period material alone or extend across a multi-site landscape, which would require widespread infrastructure investment and the development of a linking trail.

Whilst it takes several years for a potential site to be investigated, accepted and the essential commitments given, it is hard to believe that as a candidate site Nilpena Station, with more than 300 square metres of excavated fossil seafloor samples, would not have significant merit.

The mere preparation of such a proposal is a strong marketing and investment opportunity for the region. In any World Heritage scenario, Leigh Creek could still be a central hub, displaying public art or fossil iconography, offering interpretation guides, classroom and teaching material as well as servicing a potential network of sites.

Recommendation

26: Work progress to develop an application for World Heritage Listing as a medium to long-term strategy to protect and conserve the fossil sites and increase visitation to the Northern Flinders Ranges and Outback Region.

4.2.6 Natural Environment Like Nowhere Else

Whilst Leigh Creek Township boasts a remarkable urban landscape, the surrounding desert and nearby hills display a special arid ecosystem which offers potential educational, research and tourism uses. Much of the land has had a pastoral history but large areas have been destocked, some areas have become national parks or been the subject of revegetation and fauna protection, and others have been set aside as part of the mining lease.

The natural environment offers nearby diverse habitats, between ranges, gibber plains and sandy deserts with rich biodiversity, variable microclimates and ephemeral lake systems.

Visitors also enjoy diverse, organised and self-guided activities like bird watching and bush walking. These activities bring economic benefit by supporting businesses often distant from the actual tourism location.

These opportunities have been identified in the *Nature Like Nowhere Else – Activating Nature Based Tourism in South Australia Strategy* developed by DEWNR and the SATC as a basis on which to expand tourism and are in support of the State Government's Economic Priority to *Grow South Australia as a Destination of Choice for both National and International Tourism*. Moving towards this goal requires product development, investment

in interpretation and marketing of the assets, which tend to bring regional benefit rather than economic sustainability of individual products.

The local natural environmental attractions serviced by Leigh Creek include, amongst others, those associated with Angorichina, Arkaroola, Wilpena, and Witchelina. Synergies between Leigh Creek and these assets could be developed and are described later in discussion of use of the Township as a regional interpretation hub.

The nearby natural landscapes are supported by a range of landholders and stakeholders including Foundation for Australia's Most Endangered Inc. (FAME), Nature Foundation SA[49] and historically, the Australian Trust of Conservation Volunteers (ATCV) now Conservation Volunteers Australia (CVA).

Witchelina is close to the Leigh Creek Township but the modified landscapes around the Aroona Dam and Sanctuary and the Retention Dam are linked historically and functionally to Leigh Creek and both sites are also viewed with deep affection by the local residents.

The Aroona Dam was built in 1952 to supply potable water for the Township. The Retention Dam was built to block the creek that would otherwise flood the mine, cause erosion and make it more difficult to manage spontaneous combustion events.

Both water bodies attract family picnics and a range of recreational activities. The Aroona Sanctuary hosts a colony of Yellow Footed Rock Wallabies whilst the Retention Dam is a popular bird watching location.

There are ample reasons to support and restore a degraded landscape, but doing so may also offer the opportunity for community building to support education, training, local employment and tourism with the latter increasing awareness and advocacy for endangered habitats and fauna.

The Aroona Sanctuary was developed under the auspices of ETSA[50] at a time when there was awareness that land degradation was leading to erosion and silting of the Dam, which provided water not only to Leigh Creek but also Copley, Lyndhurst and several pastoral lease holders. The project was supported by the Commonwealth and the Northern Flinders Soil Conservation Board with the workforce provided by ETSA. It won Landcare and Environmental awards, involved planting of over a million trees and resulted in the declaration of a 44 square kilometre *Fauna and Flora Sanctuary* in 1995.

At Aroona Sanctuary, another first was delivered for Leigh Creek by the Royal Zoological Society of South Australia.[51] The Zoo achieved the State's first successful programme to reintroduce captive bred marsupials.[52] The colony of Yellow Footed Rock Wallabies has become well established and is supported by a local manual predator baiting program and the scientific expertise of the Adelaide Zoo, whilst the feral goats are mustered or shot to protect the flora. There appears to be significant ongoing support for goat mustering from adjoining pastoralists and signs warn dog owners of baiting.

For almost 20 years Zoos SA, as it is now called, has continued to receive financial support from FPP to support the colony, and the team have recently included Aboriginal staff from Monarto, employed through the Learning on Country initiative and engaged in training programs leading to Diplomas in Conservation and Land Management.

Under the auspices of DEWNR, the award winning *Bounceback Flinders Ranges* initiative, which includes the Aroona Sanctuary and the surrounding pastoral leases in its footprint, has successfully collaborated in trial reintroduction programs in some parts of the Flinders Ranges.[53] This program involves monitoring, threat abatement, regional engagement and recognises the need for integrated, as opposed to single species or single threat management.

Because of its early involvement in rehabilitation and reintroduction of endangered species, the work at Aroona did not incorporate the current thinking about soil health and mechanisms to reduce pest species whereby the ecosystem is best supported by diverse species introduction.

Endangered native species can be obtained through captive breeding programs or by translocation from overpopulated reintroduction sites such as islands. However, successful and balanced reintroduction requires

removal of predators such as cats and foxes and depends on adequate and appropriate food sources and these initiatives have costs.

Most Australians have never seen these endangered nocturnal animals, and even regional residents who speak with considerable pride of the Aroona Yellow Footed Rock Wallabies admit they are hard to see in the daytime.

Meanwhile across Australia, evening spot lighting tours are increasingly seen as mechanisms to build conservation and advocacy as well as a tourism product.

The Aroona Dam and Sanctuary will be returned to the Crown shortly so there is the need to decide on a lead agency for the site and to develop a funded management plan. A related recommendation is provided later in this Report suggesting a fund be established to continue important programs such as this at Aroona Sanctuary.

The lead agency in managing the Aroona Sanctuary should be decided and stakeholders brought together at the 20th anniversary of the reintroduction program in September 2016, to celebrate the past achievements and begin to develop a strategy for management of the site, with consideration being given to an integrated multi species reintroduction trial site with associated training in Land Management at the Aroona Sanctuary.

4.3 Other Potential Developments

4.3.1. Strzelecki Track

The Strzelecki Track is a 472 km unsealed rural road linking the towns of Lyndhurst and Innamincka. Several of the proposals highlighted the current unsealed Track's contribution to high supply chain costs, higher freight costs and an increased accident risk. The annual average two-way daily traffic count past Leigh Creek is currently 550 vehicles with 28% being heavy vehicles which currently tend to avoid use of the Track. There is a widespread view that sealing the road would open up the area to investment and benefit local communities.

A sealed Strzelecki Track would have significant benefits for Leigh Creek and the region during the building phase and subsequently lead to an increase in passing heavy and recreational vehicle traffic as well as opening up further touring routes. In addition, it is likely to improve transport reliability, travel times, lower transport operating costs and reduce crash incidents and costs.

Sealing of the Strzelecki Track and the linked notion of an intermodal transport hub have been the subject of discussion in the region for some time but are currently unfunded. In September 2015, Infrastructure Australia announced that the Strzelecki Track upgrade and sealing project has achieved an 'early stage' rating on their Infrastructure Priority List.[54] The project will no doubt be the subject of ongoing assessment and negotiation for some time, but is likely to have no direct impact on Leigh Creek in the immediate or short term.

4.3.2 Alternative Ways to Use a Mine Site

Industrial Tourism has great appeal amongst some demographics but rarely attracts mass tourism and in South Australia tours of power stations, fish canneries, and tuna pens have often struggled to remain viable.

Repurposed mine sites can take advantage of existing infrastructure and contribute to the local economy after a mine has closed. Such projects are often state financed and are occasionally supported by funds set aside for rehabilitation and economic development.

The largest visitation numbers are attracted to innovative, one-off destinations. Perhaps the largest is in Cornwell UK, where the old clay pits have been turned into the Eden Project and form a focus for sustainability, rehabilitation, arts, botany and education as well as a centre for research and expertise in post mining economic development.

The organisation also works with mining companies, has developed a trace metal extraction venture and is engaged in geothermal power generation. The Eden Project, which is relatively close to dense population areas, attracts up to 12,000 tourists per day to experience the change from mining to an eco-tourism site.[55]

Elsewhere there are examples of Science Centres: *The Sudbury Neutrino Observatory* was built in INCO's Creighton Mine near Sudbury, Ontario, Canada; Museums such as *Bellevue Underground Coal Mine*, Crowsnest Pass, Alberta, Canada; Recreational Facilities like Gotland Ring, Sweden, which has become a world-class car racing track situated in an old limestone quarry and Kőbánya, Budapest, Hungary hosts a popular scuba diving destination in a flooded limestone quarry.

There is currently debate in South Australia over nuclear waste depositories and individuals, although lacking compliant RFI business propositions, have suggested a range of waste management solutions for the Leigh Creek mine site. In many parts of the world, waste management has indeed been a viable option for an open cut mine site, for instance in Goulburn NSW, an old mine has been redeveloped into the Woodlawn Eco-precinct for advanced resource recovery, waste management and energy production.[56]

In the case of the Leigh Creek Mine there is still the possibility of a range of individual and complementary industrial and extractive operations developing, but with the ongoing risk of spontaneous combustion, this would limit access to the site. In these circumstances the most attractive way to use the mining history would be to offer political and social history narratives in the Township focussed on the change from coal mining to a renewable source of energy security.

4.3.3 Film Making

South Australia has had a strong performance in screen production since the passage of the *South Australian Film Corporation Act 1972* by the Dunstan Government[57] and the significant more recent investment in the Glenside and Adelaide studios.

Direct employment of creative film making staff and post production teams is complemented by accommodation, catering and trades staff.

Screen production was estimated by Deloitte Access Economics to have made a total economic contribution of $77.2 million to South Australia's gross state product (GSP) and supported 754 full time equivalent (FTE) employees in 2013-2014.[58] It has been calculated that every $1 million SAFC puts into screen production results in a $10 million spend and employment of 100 FTEs.

The industry has the capacity to have substantial regional impact by virtue of the large numbers in a film crew and the length of time spent in filming. In addition, films can market unique tourism destinations.

Film production is well established in the Flinders Ranges and Outback region. The area is popular in advertisements and films with some local pastoralists having expertise, developed over decades, in location selection, sourcing props and giving general support.

Film production requires significant private investment but governments across Australia play an important role in facilitating, and in some cases, sponsoring specific projects. This is especially true in regional locations when transport costs are higher. In the case of Leigh Creek and environs, the current lack of bandwidth would probably necessitate daily physical delivery of cassettes to metropolitan post production facilities by air.

The benefits to Leigh Creek and the region are significant with crews of 70-120 people for 2-3 months. During the time that this Report has been in preparation, the SAFC has sponsored three film companies to undertake reconnaissance and location searches in the vicinity of Leigh Creek. Whilst confidential, these international opportunities are from credible proponents who are securing actors, have funding and are seriously considering basing their activities at Leigh Creek.

Despite poor broadband capacity, Leigh Creek has glorious set opportunities, access to local industry skills, high standard amenities, attractive facilities, a good airport and the opportunity to employ Aboriginal extras. These types of projects inevitably source some material locally and adopt locations throughout the region so that there are broad regional benefits.

Other states have large regional film grants that are important in securing productions for remote areas and such a proposition should be developed for regional South Australia with the current proposals focussing on Leigh Creek currently being eligible for consideration.

Recommendation

27: Additional support should be offered to SAFC to promote regional film making in the Upper Spencer Gulf and Outback Region through a focussed economic transition grant program for three years.

4.3.4 Outback Festivals

The Outback has held a range of events and festivals often linked to fundraising and are either Sports or Arts based. There are football carnivals, gymkhanas, country and western music concerts at various locations and classical concerts most recently under the auspices of RFDS in Wilpena.

While the model largely depends on volunteers and the availability of accommodation in camp sites or hotel settings, a wide range of events could be hosted at Leigh Creek because it has ovals and a range of sports facilities as well as an inside raked theatre/cinema venue with 180 seats.

This venue might be creatively used as part of a seasonal weekend program of films with either current films or thematic collections. Potentially programming could complement coach passenger demographics, school visits, university workshops and be used in their marketing. The recommendation in the previous chapter for funding of a Country Arts SA position focussed on Leigh Creek and surrounds would assist in attracting and co-ordinating regional events of this kind including outreach from Adelaide festivals.

4.4 An Education Base in Leigh Creek

Another key element of a potential new narrative for Leigh Creek Township is the creation of an education hub that can draw upon the historical, geological, palaeontological and natural assets of the region and the distinct Aboriginal cultural heritage. With an expanse of under-used infrastructure, including enviable amenities, Leigh Creek provides an ideal location for school camps, university field trips, and could act as a remote base for research and training opportunities.

4.4.1 School Camps

When the Leigh Creek Area School was larger and had more staff, it had the resources to support multiple sports clubs and accept visiting school camps with public school groups engaged in environmental, Aboriginal and Ediacaran programs. The current school has a smaller staff and extracurricular activities are less feasible.

However, with increasing public and private investment in fossil tourism, the ongoing discussions about World Heritage Listing of palaeontological resources in the region and the focus on expanding Aboriginal tourism destination development, there may be more future capacity in the region.

DECD currently runs the Arbury Park Outdoor School, which is located in Bridgewater and offers a very different experience than that which could be provided at Leigh Creek. There is also a school camp associated with Quorn Area School, which is 330 km from Adelaide (200 km south of Leigh Creek). Currently, the school does not advertise the campsite and they have 6-8 groups using the campsite each year.

The travelling distance to Leigh Creek may be an inhibitor to the establishment of a camping facility. Indicative transport costs suggest $1,000 per day to charter a 49 or 52 seater bus from Adelaide to Leigh Creek (a three day camp costing $5,000). However, school camps in the public sector do extend as far as Canberra and Victoria, so this distance may not be prohibitive if there were significant educational, cultural and recreational benefits from travel to Leigh Creek.

Adelaide Independent schools also have an interest in outward focussed engagement and visits to the Outback involving the environment, culture and Aboriginal communities.

There is the possibility for the purchase of houses for fit out and sole usage or the option to a have a shared site used for visiting school camps from the public and private sector. This potential use of housing stock will depend on their asset assessment.

Engagement of the Independent and Catholic schooling sectors could involve meaningful legacies such as scholarships for local students or professional support for regional staff teaching in hard to staff subjects. These possibilities should be investigated and progressed.

4.4.2 Higher Education Field Trips

University programs in a range of disciplines undertake field trips. They require accommodation and both outdoor and indoor teaching spaces and opportunities. The most likely disciplines to find the Northern Flinders Ranges and Outback area attractive are geology, palaeontology, anthropology, environmental science, landscape architecture and tourism. Currently, the SA Museum advises that eight universities use the Northern Flinders Ranges for graduate and undergraduate field experience courses in addition to specialist groups, especially from North America and Europe, who engage in long-term field research on the geological formations and fossils.

The potential for airline pilot training, discussed previously, is entirely compatible and would further solidify the usage of Leigh Creek as an educational base. Some respondents have suggested that there may be the possibility of specifically developed courses for remote training in emergency care or nursing but these suggestions have not been sufficiently investigated.

Leigh Creek has safe and comfortable camping and cabin facilities, which could accommodate small group expeditions, but the town currently has no digital presence or marketing activity to promote these possibilities. The potential for contribution to the local economy is significant should government choose to invest in an Orientation Hub and associated activities.

As an example, a recent University field trip held in second semester of 2016 was organised through consultation on the RFI and brought 40 academics and students from Melbourne and Adelaide Universities to Leigh Creek as part of a Leigh Creek Design Research Field Trip. The 'Design Studio' followed a planning trip by three academics a month earlier and was focussed on the design and development of the town, which had been regarded as ground-breaking environmental planning. A report is to be written on the findings and will be made available to government.

Economic Benefit of a University Student Trip to Leigh Creek	
Accommodation Leigh Creek Tavern	$14,000
Adelaide Bus Company	$8,000
Final Dinner 40 @ $25pp plus beverages	$1,150
All daily meals for 5 @ Tavern	$1,500
Local Town visits Copley, Blinman, Beltana	$400
Supermarket shopping	$4,000
Total Expenditure	**$29,050**
Leigh Creek surrounds	**$21,050**

"The international students were at first overwhelmed but then especially moved by the unique landscape, seeing emus and kangaroos in the wild, big sunsets, night sky and their experience of meeting Adnyamathanha people.

They were keen to buy souvenirs but there was not much of a selection in Leigh Creek.

Having the police station, airport and health service made me feel more confident to take a large group of international students to a remote and arid place."

Adelaide University Workshop Convenor

4.4.3 Research and Education

The SA Museum has submitted a proposal suggesting that Leigh Creek could provide a base for storage of some of the SA Museum's Ediacaran fossil collection (given its proximity to Nilpena and the difficulty in transportation of fossils to Adelaide) and could act as an anchor for an Orientation Hub that could be used for educational purposes – school visits and Tertiary research - as well as for tourist visitation.

The SA Museum has also proposed, given its research history in the region and its archival Aboriginal collections, that it could work with local Adnyamathanha organisations to contribute to mobilising these collections across a range of public platforms like interpretive signage for discovery trails, and mobile Apps for travellers through the country.

A Leigh Creek Orientation Hub could have information on the Ediacara biota, the first complex life on Earth, but also provide a means for visitors to familiarise themselves with the palaeontology, geology, biodiversity and Aboriginal culture of the surrounding area. For example, this hub could also provide historical information on Mineralogy research in the region with maps and guides made available for tourists to undertake self-guided tours.

The SA Museum already has a broad outreach and regional engagement approach, travelling throughout South Australia to provide educational opportunities in the regions. Three of the Museum's inaugural Out-of-the-Glass-Case interactive visits were to the Flinders Ranges, respectively in Leigh Creek, Rawnsley Park and Quorn. Formalising this in the creation of a hub at Leigh Creek, with the fossil collection in situ, would be advantageous in increasing and supporting the Museum's regional exposure, bringing museum staff and objects out to local communities and making Leigh Creek the seasonal centre of the ongoing excavation work that it conducts in the Flinders Ranges. Moreover, establishing such a hub would better use and build upon existing government-owned infrastructure in Leigh Creek.

4.4.4 Area School Infrastructure Capacity

The Leigh Creek Area School was built for 450 children and currently has 88 enrolled with 64 Primary and 24 Secondary students. They are from the surrounding communities of Copley and Nepabunna with smaller numbers from Iga Warta, Beltana and then Leigh Creek itself. Some of the children travel 140 km per day by bus. Approximately 72% of the students are Aboriginal, and reside outside of the Township. The school has 38 students who come from families who work for Alinta and should they leave the Township, the school will have an enrolment of approximately 50 students.

The school is part of the Flinders Hub providing professional development for staff and high quality sports facilities for the schools in Marree and Hawker.

The main entrance is contiguous with the community library, which is spacious, well equipped and enjoys publically accessible internet access. The school has a designated trade training facility offering metal work. The school offers a breakfast service and has a sizeable but non-commercial standard kitchen.

The school's capacity to designate space for storage of some of the Museum's significant fossil collection has been assessed and it appears that there is spare laboratory space that may be suitable and lockable buildings available. In addition, there is ample classroom space for visiting school or University teaching purposes as well as a workshop that is excess to requirements that could be used for these purposes (and associated school camping/visitation).

4.4.5 Transition from School

If Leigh Creek were to be fostered as an Education base, it would be necessary to invest in the development of transitions for students from secondary into further education and jobs. The Leigh Creek Area School currently has no school based apprentices, apparently reflecting an unwillingness of local employers to become engaged in the program.

Local tourism businesses have suggested that tourism and hospitality training is needed in the area and it is accepted that regional tourism operators struggle to find trained local staff.[59] Several of the tourism operators consulted during the RFI have links with training colleges and registered training organisations that could potentially also use the facilities at the Leigh Creek Area School.

Moreover, if Leigh Creek were to become a base for university field trips, school visitation and outreach programs focussed on the natural and geological assets of the region, its Aboriginal cultural origins and Ediacaran fossils, this may present further opportunities to strengthen the school's curriculum offering and form alliances between the school and further education sectors to encourage pathways from school to employment in the region for local students.

Recommendation

28: DECD work with DSD to determine areas of local employment demand and cultivate opportunities for school based apprenticeships and pathways to employment locally, with a particular focus on Aboriginal students.

4.5 Realising the Potential

In view of the need to direct tourism footfall to support the retail and commercial assets, a publicly accessible Orientation Hub is recommended for the Town Centre. The educational and research facilities are suggested as reuse options for the Area School buildings bringing potentially innovative learning opportunities to the local school children.

Should the concept of a Town Centre Orientation Hub proceed, associated with a currently vacant retail space, it might involve interpretative displays, interactive panelling and self-guided Apps to support Aboriginal, fossil and mining history narratives. Such a central location with street presence could operate without staff and be self-guided.

In relation to the Area School the existing building layout suggests an opportunity for a section to be cordoned off for use by other agencies, including the SA Museum and Universities, as well as for school camping.

In addition, the Township sporting facilities, with full sized gym, squash courts, a swimming complex with pools for all age groups and a Cinema are ideal for broader school use and form an integrated source of activities for visiting students and academics. An Orientation Hub would anchor the school camp offering and give further purpose to student travel to Leigh Creek.

Leigh Creek offers an extensive array of infrastructure including the capacity to provide accommodation, and commercial catering at the Tavern. Full use of the facilities offered at Leigh Creek would require innovative approaches to infrastructure re-purposing and development of potential connections with business owners or managers, for example, the Tavern.

If the Government is interested in pursuing development of this concept, it may be necessary for a business case to be developed for potential management by a private sector operator, or as a package that may appeal to both public schools here and interstate as well as the Independent and Catholic schooling sectors.

The development of maps and guides to enable tourists to largely self-guide around the region to visit geological and palaeontology sites could usefully be pursued as a complementary promotional tool aligning with the development, protection and promotion of the Ediacaran fossil site at Nilpena. In addition, such a project would enhance the development of a bid for World Heritage Listing for the Northern Flinders Ranges.

An Orientation Hub at Leigh Creek could play a role in better promoting the biodiversity of the region and further enhance visitor experience.

Recommendations

29: A government committee with representation from the SA Museum, History SA, SATC, DEWNR, DECD, DPTI and DSD be established to co-ordinate a project plan and business case for the creation of an education base in Leigh Creek with lead agencies identified to undertake the following:

- **i. An asset assessment on the potential for repurposing existing infrastructure at the school for secure fossil storage and preparation; classroom space for university field trips; research and school visits; and special interest tourism groups;**
- **ii. Planning for an unstaffed Orientation Hub in the Leigh Creek Township hosting a range of static displays including technological enhancements depicting the geology, palaeontology, biodiversity and Aboriginal culture of the region;**
- **iii. Examine the potential for development of school camp facilities and program including sale of housing for use by schools and families**

30: Government considers funding a position to work with OCA, the RDAFN and Local Government to focus on marketing and commercial opportunities to support innovative town infrastructure usage and assist with planning and recruitment for the Education base concept.

5 Recommendations

Leigh Creek Open for Business

It is recommended that:

1. A regional service town model would be better positioned to adapt and develop into the future as an open town, with housing made available to rental tenancies on transition and consideration given to eventual sale of residential units for occupation or transportation.
2. The process of opening the town is transitioned over a 12 month period from the date of government takeover.
3. SATC and DPTI collaborate to design a suite of upgraded signage for installation at the gateway to Leigh Creek and surrounding Townships in the Northern Flinders Ranges and Outback Region.
4. An assessment is undertaken of potential design improvements to the physical configuration, building entry points, place finding and legibility of Township infrastructure, in particular the Tavern.
5. Government consults generally and seeks advice from ATLA on renaming the Township infrastructure and amenities, including the airport.
6. All tenders or new management of businesses and services in the Township include a requirement that practices be adopted to signal the town is 'Open for Business' with websites established, new signage, and openness to increased tourist visitation.
7. Government considers funding for a position dedicated to the Northern Flinders Ranges region to co-ordinate and seek funding for art, culture, sport and recreational activities and promote Leigh Creek and surrounding communities as a key location for regional programming and events.
8. Renewal SA or an appropriate agency, with the support of DPTI, SATC and RDAFN prepares an EOI to result in a lease, management agreement or purchase of the Tavern and Motel facility at the earliest opportunity.
9. Existing commercial tenancies should be rolled over for an interim period and new tenancies offered at realistic rental rates that are not prohibitive to the provision of vital services.
10. Government considers Leigh Creek as a potential Wi-Fi hotspot location and opportunities with the NBN.
11. OCA gives immediate consideration to the RFI Proposal regarding waste management services.
12. OCA considers options for management of the airport including suitability of RFI proponents and in consideration of further commercial potential.
13. DSD and SATC nominate a representative to explore the potential for engagement of a private airline and furthering flight training and related tourism opportunities at Leigh Creek.

Building Social Capacity

It is recommended that:

14. Government services be maintained but not expanded at this time.
15. The current focus on expediting all proposals related to Leigh Creek and surrounds continue to ensure any viable projects are not delayed.
16. DECD examines the regional need for early childhood education and care particularly for Aboriginal children and the options available at the Kindergarten school site to better support care provision and employment in the region.
17. Government negotiates with Alinta for a co-contribution to a social development fund to continue support of local community initiatives and broader programs such as that operated by Zoos SA at the Aroona Sanctuary.
18. A community management structure is established that ensures Adnyamathanha representation and local and surrounding community involvement in the Leigh Creek Township.
19. Government sets a review date to assess the transition process, town governance and all unsolicited bid proposals related to Leigh Creek of no later than July 2018.
20. In consultation with ATLA, explore the potential for housing management opportunities.
21. Any new leasing arrangements for businesses in Leigh Creek include the government procurement standard of 15% of Aboriginal employment.
22. ATLA considers developing commercial proposals for management of key services in Leigh Creek.

Revitalising Leigh Creek

It is recommended that:

23. SATC investigates opportunities to *Own the Outback* by changing the Airport name and linking it with international gateway airports to connect local Aboriginal, pastoral, and fossil tourism operators with international inbound flights.
24. DSD and Renewables SA advise on the potential for renewable energy projects and storage schemes that are visible and may produce long term benefit to regional areas, with consideration given to Leigh Creek as a potential new technology trial site.
25. The SATC should continue to develop a trail of aboriginal cultural products with Leigh Creek serving as a Hub to encourage travellers to explore locations locally and into the Northern Territory.
26. Work progress to develop an application for World Heritage Listing as a medium to long-term strategy to protect and conserve the fossil sites and increase visitation to the Northern Flinders Ranges and Outback Region.
27. Additional support should be offered to SAFC to promote regional film making in the Upper Spencer Gulf and Outback Region through a focussed economic transition grant program for three years.

28. DECD continues to work with DSD to determine areas of local employment demand and cultivate opportunities for school based apprenticeships and pathways to employment locally, with a particular focus on Aboriginal students.

29. A government committee with representation from the SA Museum, History SA, SATC, DEWNR, DECD, DPTI and DSD is established to co-ordinate a project plan and business case for the creation of an education base in Leigh Creek with lead agencies identified to undertake the following:

    i. An asset assessment on the potential for repurposing existing infrastructure at the school for secure fossil storage and preparation, classroom space for university field trips, research and school visits, and special interest tourism groups;

    ii. Planning for an unstaffed Orientation Hub in the Leigh Creek Township hosting a range of static displays including technological enhancements depicting the geology, palaeontology, biodiversity and Aboriginal culture of the region;

    iii. Examine the potential for development of school camp facilities and program including sale of housing for use by schools and families.

30. Government considers funding a position to work with OCA, the RDAFN and Local Government to focus on marketing and commercial opportunities to support innovative town infrastructure usage and assist with planning and recruitment for the Education base concept.

Leigh Creek's major tourism attractions are the location and the opportunities to support and promote surrounding assets such as Aboriginal cultural tourism, eco-tourism and fossil tourism. Several pastoral properties have diversified to leverage off the history, built heritage and cultural experiences with joint marketing and in some cases extensive collaboration. Such initiatives are synergistic: both using and supporting Leigh Creek businesses.

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7 Abbreviations

AESCO	Adelaide Electric Supply Company
AHA	Australian Hotels Association
ARA	Aboriginal Regional Authority
ATLA	Adnyamathanha Traditional Lands Association
BFO	Building Family Opportunities
CRC-REP	Cooperative Research Centre - Remote Economic Participation
CSO	Community Service Obligation
CSP	Concentrated Solar Power
DECD	Department of Education and Child Development
DEWNR	Department of Environment, Water and Natural Resources
DDA	Disability Discrimination Act
DSD	Department of State Development
DPTI	Department of Planning, Transport and Infrastructure
EOI	Expression of Interest
ETSA	Electricity Trust of South Australia
E&WS	Engineering and Water Supply Department
FPP	Flinders Power Partnership
FIFO/DIDO	Fly-In-Fly-Out / Drive-In-Drive-Out
IBA	Indigenous Business Australia
ILC	Indigenous Land Corporation
IPP	Industry Participation Policy
MDC	Monarto Development Commission
OCA	Outback Communities Authority
RDAFN	Regional Development Authority Far North
RFDS	Royal Flying Doctor Service
RFI	Request for Information
SAFC	South Australian Film Corporation
SATC	South Australian Tourism Commission

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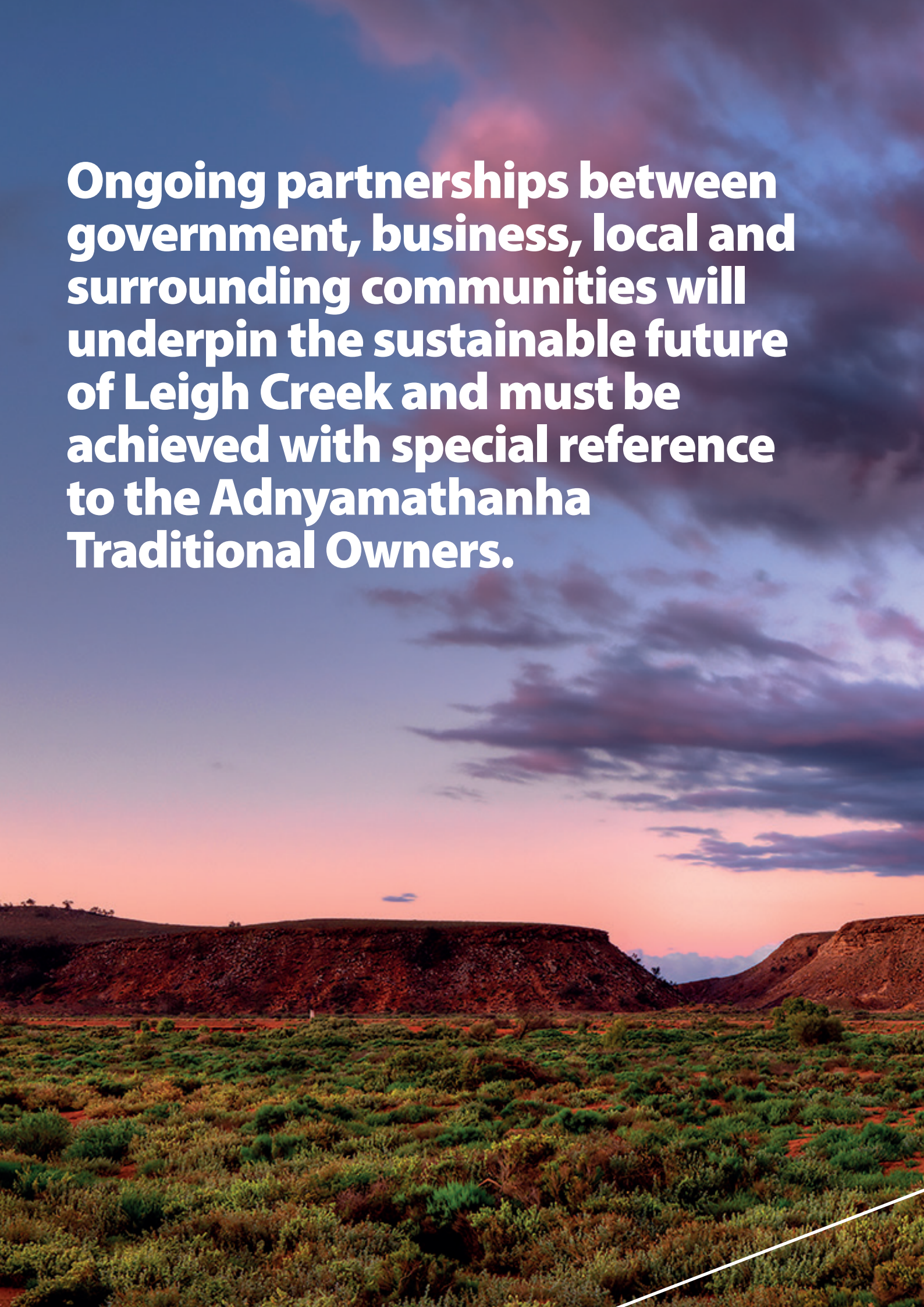

Ongoing partnerships between government, business, local and surrounding communities will underpin the sustainable future of Leigh Creek and must be achieved with special reference to the Adnyamathanha Traditional Owners.

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